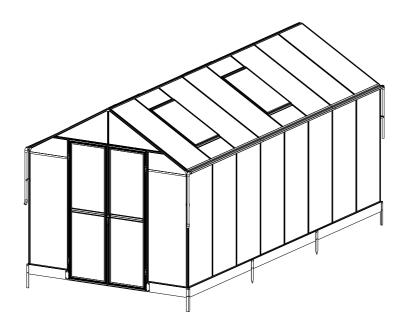
### **Assembly Instructions**

MODEL:AM948

PRODUCT SIZE(LxWxH): 8X16

PLEASE READ CAREFULLY BEFORE ASSEMBLY



Greenhouse 8x16 FT Assembly Instruction SKU:

1007040032B(BOX 1)

1007040033B(BOX 2)

Arrive in 2 separate boxes and may not be part of the same shipment; Please install the product after receiving all the packages.

Email Address:cs@howedirect.com

Tel: 901-347-2181

Service Time: 8 am - 5 pm (central time) Monday- Friday.

If no one picks up, please call several more times

### CONTENTS

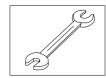
| 1. Assembly Advice              | Page 1       |
|---------------------------------|--------------|
| 2. Product Features             | Page 2       |
| 3. Parts List                   | Page 3 -5    |
| 4. Door Assembly                | Page 6 - 10  |
| 5. Roof Vent Assembly           | Page 11 - 13 |
| 7. Base Assembly                | Page 14-15   |
| 8. Framework & Glazing Assembly | Page 16 - 38 |

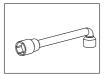
### Assembly and Maintenance Advice

- 1. For safety purposes, we strongly recommend that this product is assembled by at least two people.
- 2. Some components have sharp metal edges. Please be careful when handling metal components. Please wear gloves, shoes and safety goggles during assembly.
- 3. Lay all of the components on a soft carpet or blanket to avoid any scratches or damages.
- 4. DO NOT climb or stand on the roof. Heavy articles should not be leaned against the greenhouse.
- 5. Keep the roof and gutter clear of snow, dirt & leaves. Allowing snow to build up on the roof may damage the product.
- 6. Unlike steel, if the paint finish is scratched this will not harm the aluminium underneath.
- 7. When your product needs cleaning, use a mild detergent solution and rinse with cold clean water. Do not use acetone, abrasive cleaners or strong detergents to clean the panels.

### Tools Provided:







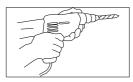
### Tools Required when Assembly (Not Provided)

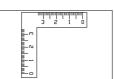












### Assembly at least by two Persons



### Important:

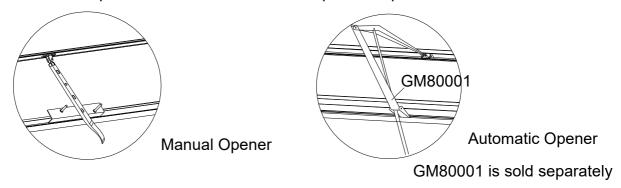
Rubber is not provided if you choose polycarbonate sheet as glazing panel.

### **Functions and Features:**

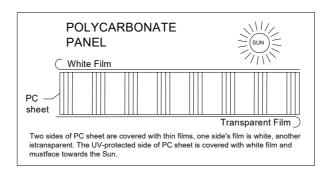
1. The strong two part eaves beam includes an integral gutter. Downpipes are also included

as standard so you can collect rainwater.

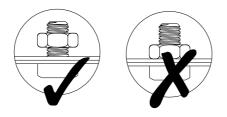
2. Manual window handles are included as standard with the roof vents. If required, automatic roof vent openers are available as an inexpensive optional extra.



3. Remove approximately 2 inches of film from all sheet edges before installing and remove all film immediately after the construction is completed. Please ensure that the side with the white film faces outwards.



- 4. This quality greenhouse features self-tapping screws to provide strong joints. As the name suggests, the screws tap their own thread. Driving in self-tapping screws requires more force than conventional screws. A powered screwdriver is therefore recommended.
- 5. Nuts not to be tightened before the end of assembly! Unless otherwise stated, do not tighten the bolts/nuts/screws until the shed is finally erected!



|    | PART                   | NO   | QTY |
|----|------------------------|------|-----|
| 1  |                        | L01A | 1   |
|    | 1447mm                 | L01B | 1   |
| 2  | 420mm                  | L02C | 2   |
| 2  | 570mm                  | L04K | 4   |
| 3  | 292mm                  | L05B | 5   |
| 4  | 1181mm                 | L06K | 1   |
| 5  | 1772mm                 | L06L | 2   |
| 6  | 1181mm                 | L07K | 2   |
| 7  | 1772mm                 | L07L | 4   |
| 8  | 1181mm                 | L08K | 2   |
| 9  | 1772mm                 | L08L | 4   |
| 10 |                        | L08E | 1   |
| 10 | 550mm                  | L08F | 1   |
| 11 | 1182mm                 | L09K | 2   |
| 12 | 1773mm                 | L09L | 4   |
|    |                        | L10A | 2   |
| 13 |                        | L10B | 1   |
|    | A:560 B:1122<br>C:1143 | L10C | 1   |

|    | PART          | NO   | QTY |
|----|---------------|------|-----|
| 14 |               | L23B | 2   |
| 14 | B:1102 K:1162 | L23K | 4   |
| 15 | 1753mm        | L23L | 8   |
| 16 | 6             | L23G | 2   |
| 10 | G:541 E:600   | L23E | 6   |
| 17 | 650mm         | L25  | 4   |
| 18 |               | L26A | 1   |
| 10 | A:1776 H:1610 | L26H | 1   |
| 19 |               | L26B | 1   |
| 19 | B:1776 G:1610 | L26G | 1   |
| 20 | 1656mm        | L26C | 2   |
| 21 | 1656mm        | L26D | 1   |
| 22 | 540mm         | L02D | 6   |

# door

|    | PART   | NO   | QTY |
|----|--------|------|-----|
| 23 | 1760mm | L16A | 2   |
| 24 | 464mm  | L17  | 2   |
| 25 |        | L18A | 2   |
| 25 | 546mm  | L18B | 2   |
| 26 |        | L18C | 1   |
| 27 | 1792mm | L18D | 1   |

### windowsX4

|    | PART  | NO.  | QTY. |
|----|-------|------|------|
| 28 |       | L11K | 4    |
| 20 | 584mm | L12K | 4    |
|    | 748mm | L19  | 8    |
| 29 | 584mm | L20K | 4    |
|    | 584mm | L21K | 4    |

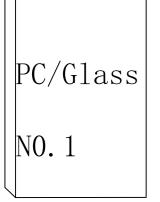
| PART               | NO   | QTY |
|--------------------|------|-----|
| ô <u>L</u>         | A2   | 2   |
| •                  | B2   | 2   |
| A2:579<br>B2:1150  | K2   | 4   |
| K2:1595<br>K3:1595 | K3   | 2   |
| <b>::::</b>        | D306 | 4   |
|                    | D307 | 5   |
| 0 0                | D317 | 2   |



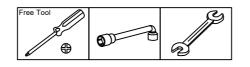
| PART       | NO         | QTY |
|------------|------------|-----|
| 245X558mm  | Y1         | 2   |
| 1425X558mm | Y2         | 6   |
| 448X776mm  | Y3         | 2   |
| 245X558mm  | Y4         | 2   |
| 1468X588mm | Y16        | 16  |
| 1271X588mm | Y17        | 12  |
| 448X776mm  | Y8         | 2   |
| 243X558mm  | <b>Y</b> 9 | 2   |
| 726X582mm  | Y20        | 4   |
| 841X484mm  | Y11        | 4   |
| 243X588mm  | Y19        | 8   |
|            |            |     |

| PART     | NO   | QTY |
|----------|------|-----|
|          | J55  | 2   |
| 50       | J56R | 2   |
|          | J56L | 2   |
| 9        | J94  | 4   |
|          | J93  | 4   |
|          | J165 | 4   |
|          | J166 | 4   |
| 1        | A01  | 4   |
| <u></u>  | A03  | 4   |
| 0000     | A51  | 4   |
| <u> </u> | D17  | 8   |
|          | D25  | 4   |
|          | D26  | 2   |
| F        | D45  | 8   |
|          | D309 | 4   |

| PART            | NO             | QTY |
|-----------------|----------------|-----|
|                 | S01<br>M6X12   | 375 |
|                 | M01<br>M6      | 375 |
|                 | Z02<br>Ø4X16D  | 32  |
| # mm            | Z04<br>Ø4X8    | 8   |
| 4               | Z08<br>M4.2X16 | 94  |
| <b>****</b> (*) | Z17<br>M4.8X16 | 8   |
|                 | D114           | 20  |
|                 | S69<br>M6X60   | 20  |
|                 |                |     |
|                 |                |     |



Tools Provided:

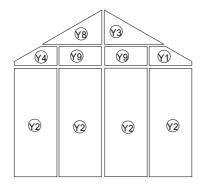


|   | PART   | NO   | QTY   |
|---|--------|------|---|
| 1 |        | L01E | 1   |
| • | 1447mm | L01F | 1   |
| 0 |        | L01C | 2   |
| 2 | 1247mm | L01D | 2   |
| 3 |        | L02A | 2<br>2<br>2<br>10<br>2  |
| 4 | 1447mm | L02B | 2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>2 |
| 5 | 1447mm | L03A | 2 4   |
| 6 | 1247mm | L03B | 2 4   |

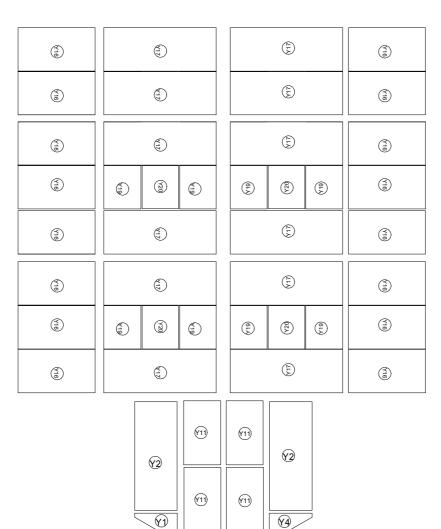
| PART | NO  | QTY |
|------|-----|-----|
|      | Y1  | 2   |
|      | Y2  | 6   |
|      | Y3  | 2   |
|      | Y4  | 2   |
|      | Y8  | 2   |
|      | Y9  | 2   |
|      | Y16 | 16  |
|      | Y17 | 12  |
|      | Y19 | 8   |
|      | Y20 | 4   |
|      | Y11 | 4   |

# Panel Exploded View

### **Back Wall**

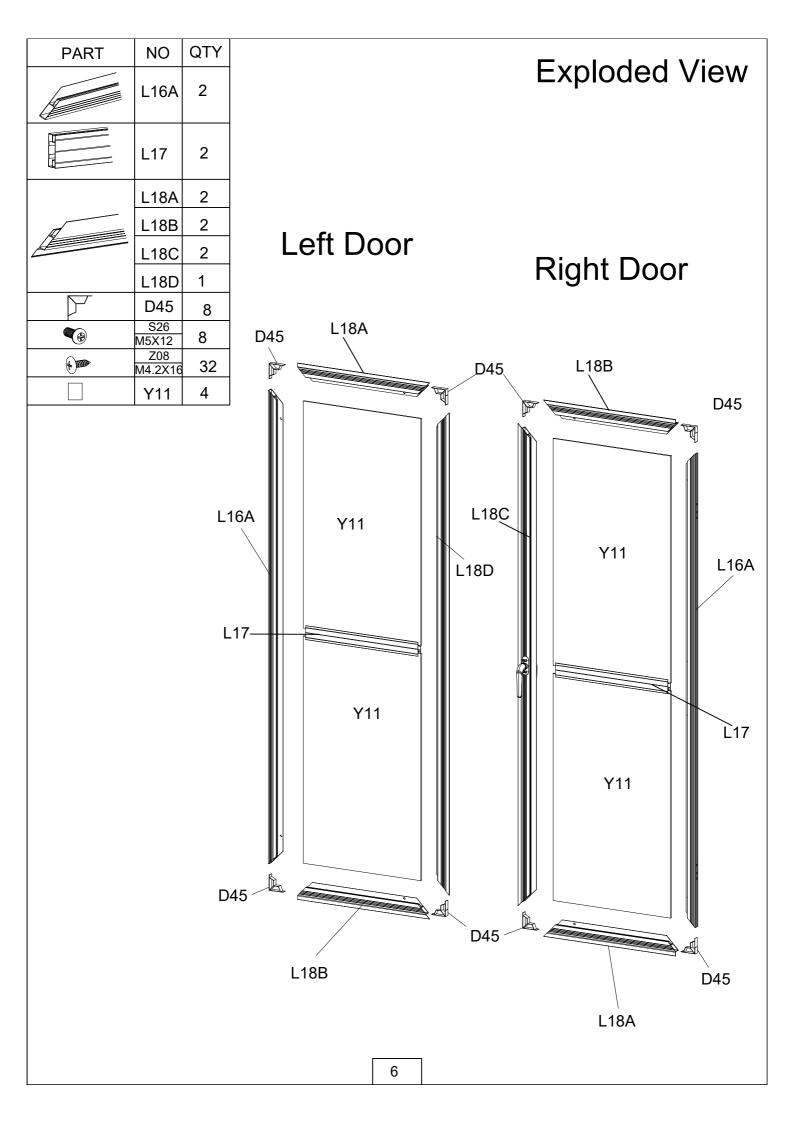


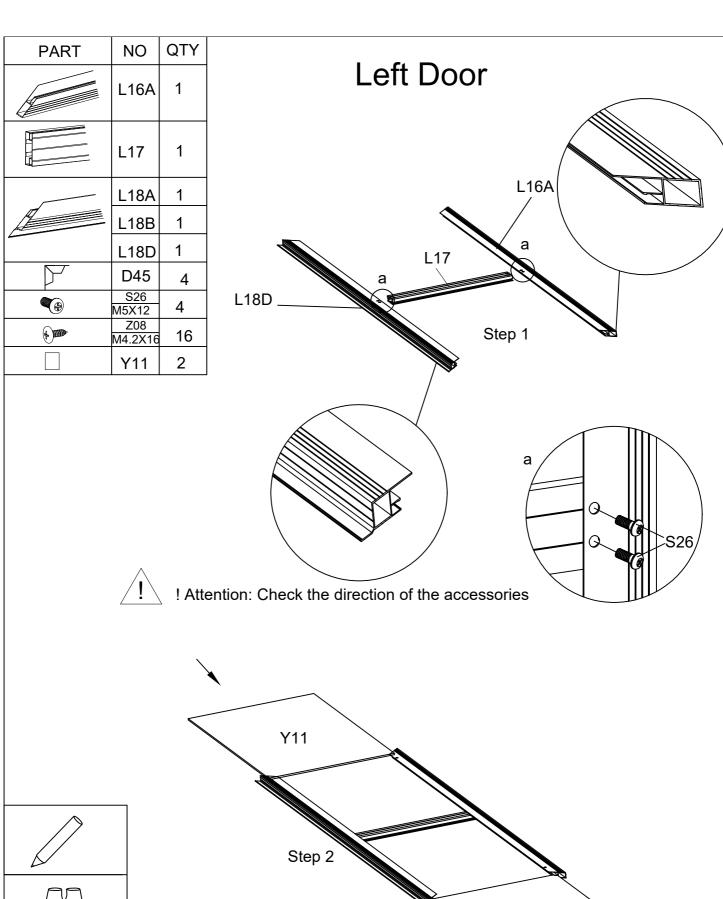
# Side Wall

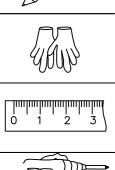


### Side Wall





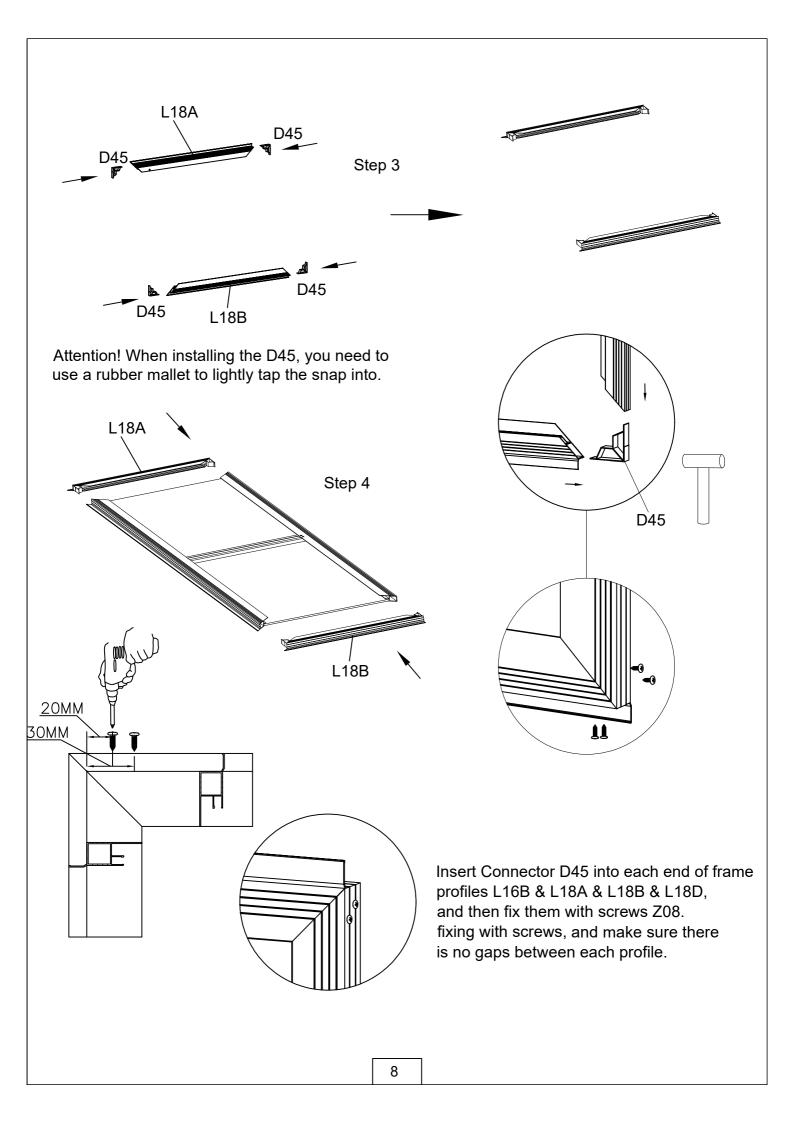


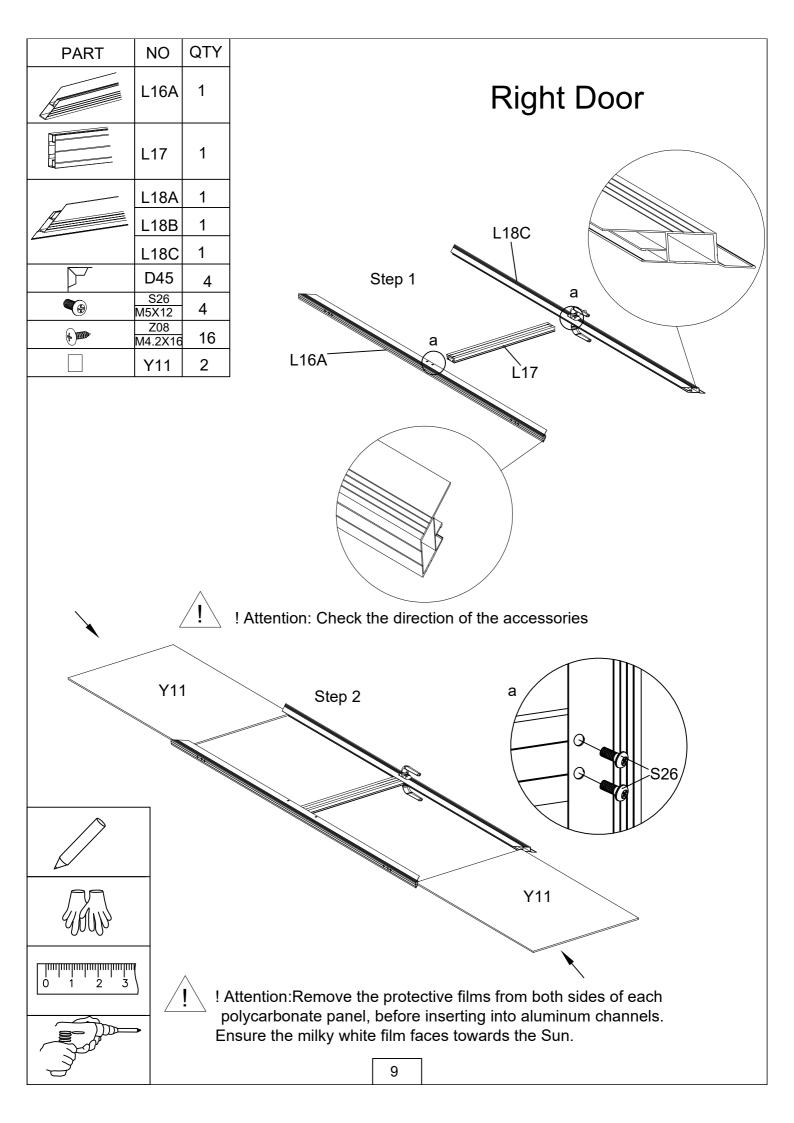


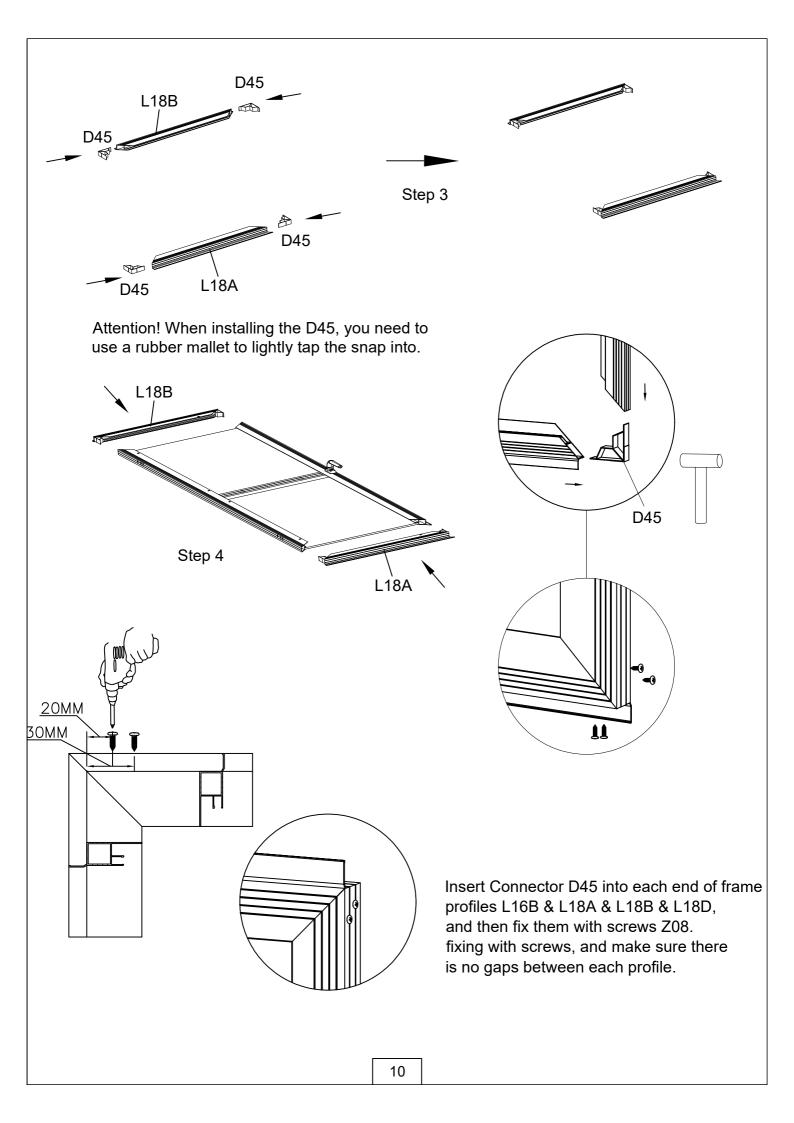


! Attention:Remove the protective films from both sides of each polycarbonate panel, before inserting into aluminum channels. Ensure the milky white film faces towards the Sun.

Y11



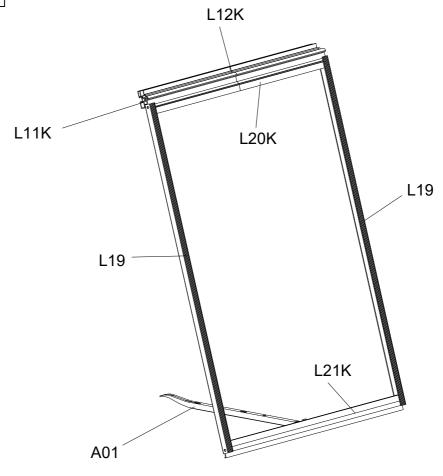




| NO.            | QTY   |
|----------------|---|
| L11K           | 4   |
| L12K           | 4   |
| L19            | 8   |
| L20K           | 4   |
| L21K           | 4   |
| Y10            | 4   |
| A01            | 4   |
| Z02<br>Ø4X16D  | 24  |
| Z04<br>Ø4X8    | 8   |
| Z08<br>M4.2X16 | 8   |
|                | L11K L12K L19 L20K L21K Y10 A01 Z02 Ø4X16D Z04 Ø4X8 Z08 |

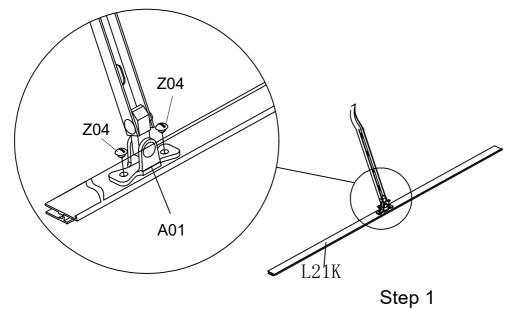
# **Exploded View**

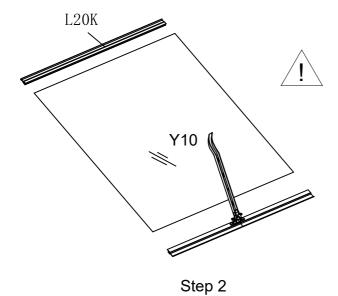
### Window X 4



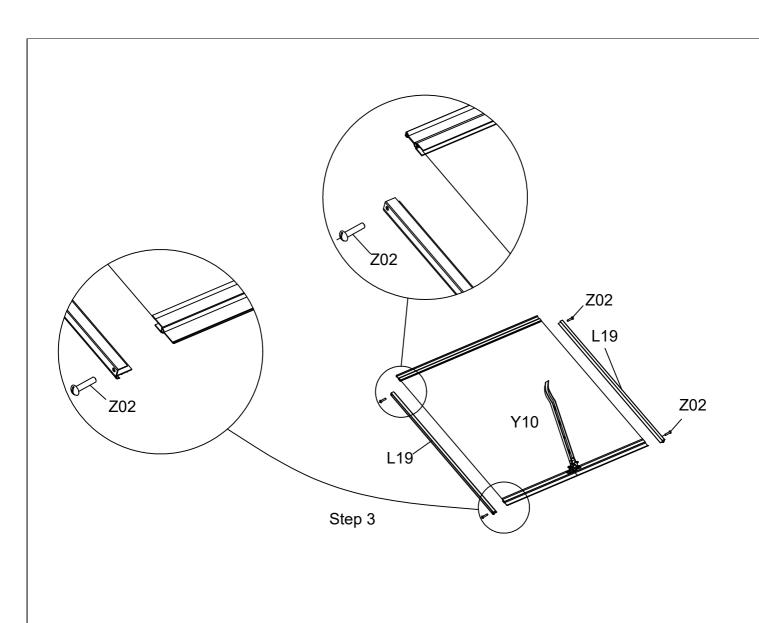
| PART | NO.  | QTY. |
|------|------|------|
|      | L11K | 1    |
|      | L12K | 1    |
|      | L19  | 2    |
|      | L20K | 1    |
|      | L21K | 1    |

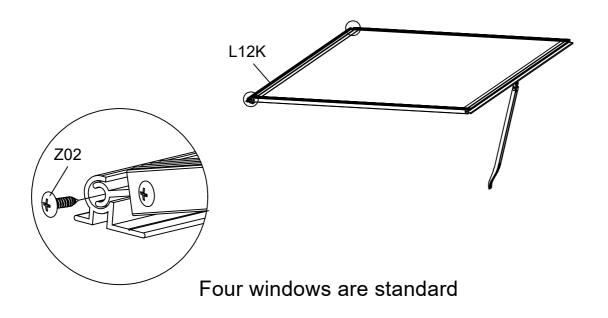
| Part   | NO.           | QTY. |
|--|---------------|------|
|  | Y10           | 1    |
| 1  | A01           | 1    |
| <b>(+)</b>   | Z02<br>Ø4X16D | 6    |
|  | Z04           | 2    |
| The state of the s | Ø4X8          |      |





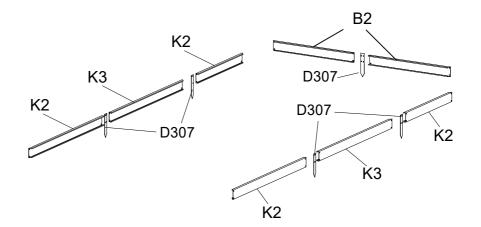
! Attention:Remove the protective films from both sides of each polycarbonate panel, before inserting into aluminum channels. Ensure the milky white film faces towards the Sun.

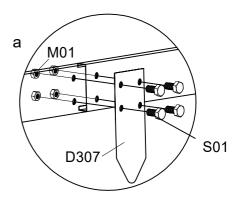


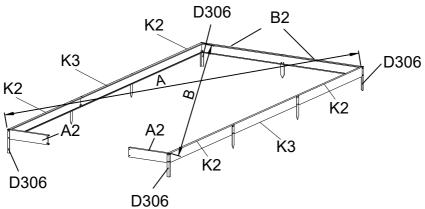


| PART          | NO           | QTY |
|---------------|--------------|-----|
|               | B2           | 2   |
|               | A2           | 2   |
|               | K2           | 4   |
|               | K3           | 2   |
| 1 <del></del> | D306         | 4   |
|               | D307         | 5   |
|               | S01<br>M6X12 | 36  |
| (a)           | M01<br>M6    | 36  |

### **Base Assembly**

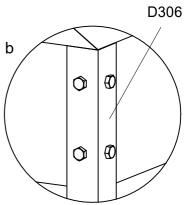






Attention! D306 and D307 must be inserted into the soil or installed in reverse!

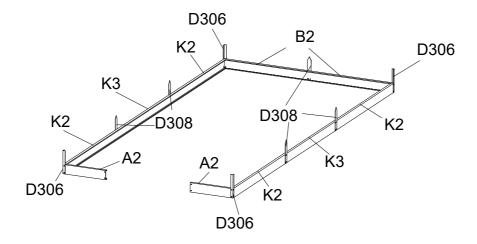
Fix the base before assembly the greenhouse. This is the way to fix the base.



### **Base Assembly**

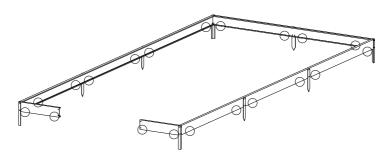


! Attention:Turn over the steel plinths D306 & D308 to complete the base installation as shown below, when the greenhouse is NOT inserted and secured into the soft soil.

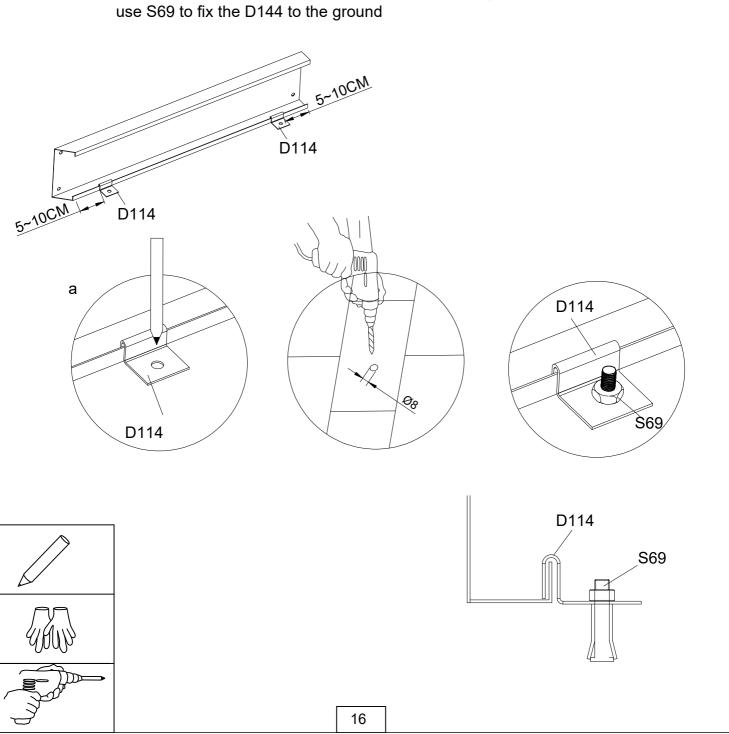


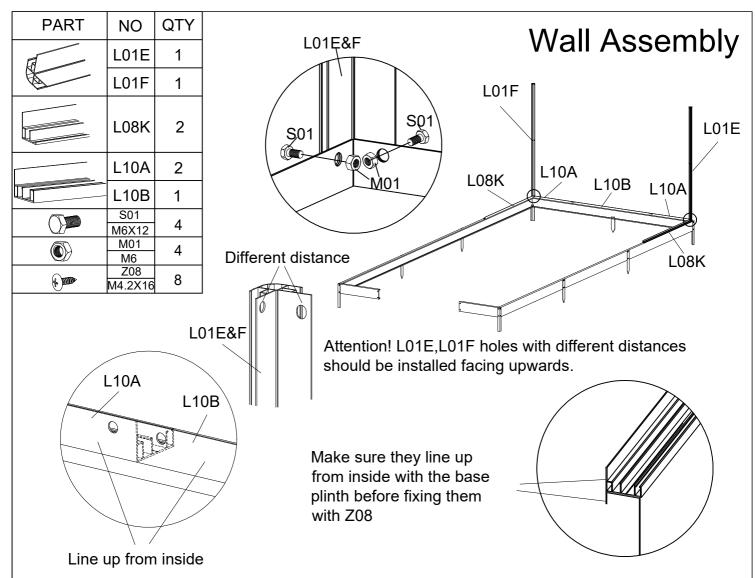
| PART | NO           | QTY |
|------|--------------|-----|
|      | D114         | 20  |
|      | S69<br>M6X60 | 20  |
|      |              |     |
|      |              |     |

# Base Assembly



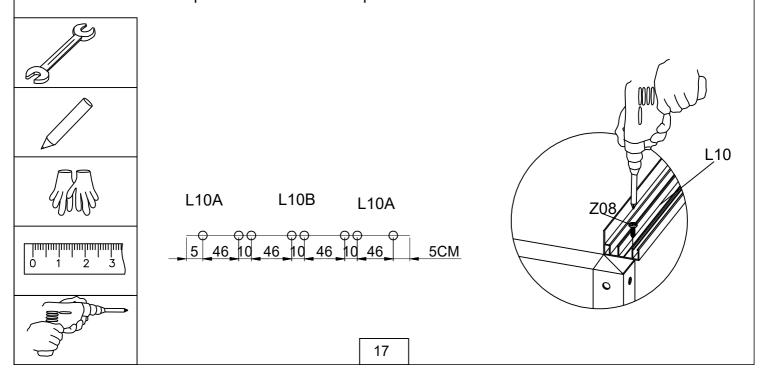
- 1. Fix the base anchor clip D114 onto each base section with a distance of 5~10CM from each end.
- 2. Mark the middle of the D114 hole to drill the Ø8 hole, then

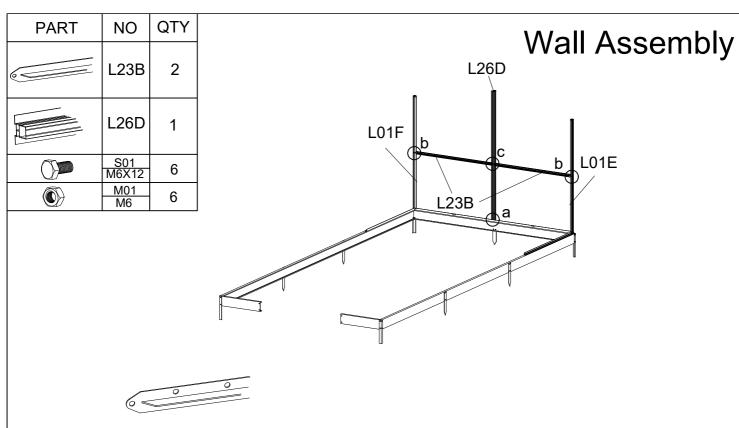




1. Place L10A, L10B, L01E, L01F & L08K on the base plinth (B2 & C2), then fix them together using S01 & M01 as shown. Make sure they line up from inside of the base plinth.

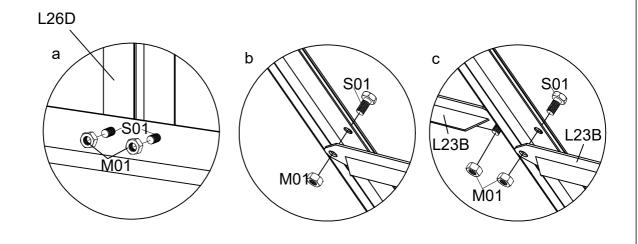
2. Use a powered screwdriver to fix the self-tapping screws (Z08) through the cills (L10A, L10B & L08K) and base plinth (B2,C2 and A2). The screws should be evenly spaced to ensure a neat appearance. The recommended spacing of the screws is 460mm. You can mark the painted surfaces with a pencil.

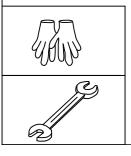




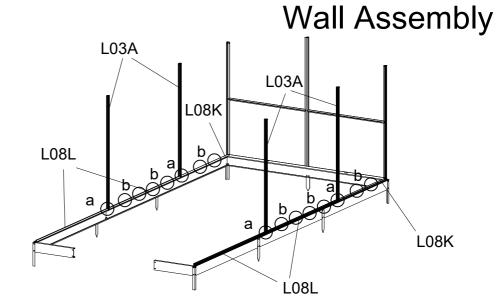
Attention! Put the side with 2 holes of L23B facing upwards.

Fix L26D onto L10B, using S01 & M01. Fix L23B \* 2PCS to L01E, L01F & L26D, using S01 & M01



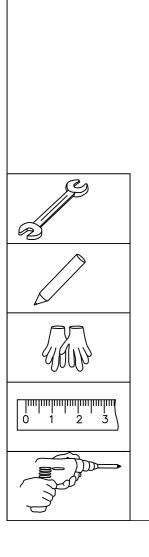


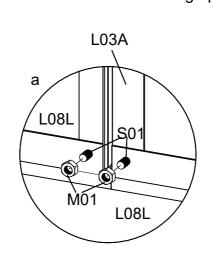
| PART | NO             | QTY |
|------|----------------|-----|
|      | L03A           | 4   |
|      | L08L           | 4   |
|      | S01<br>M6X12   | 8   |
|      | M01<br>M6      | 8   |
| 4    | Z08<br>M4.2X16 | 20  |

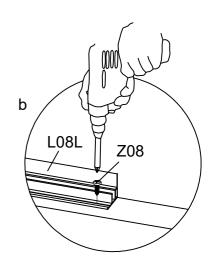


- 1. Place L08L on the base plinth and fix L03A onto L08L, using S01 & M01.
- 2. Use a powered screwdriver to fix the self-tapping screws (Z08) through the cills (L08L) and base plinth (C2). The screws should be evenly spaced to ensure a neat appearance. The recommended spacing of the screws is 460mm. You can mark the painted surfaces with a pencil.

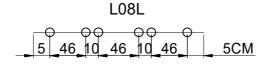
Attention! : Install the L03A with the side with the hole facing up!

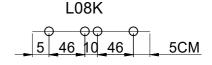




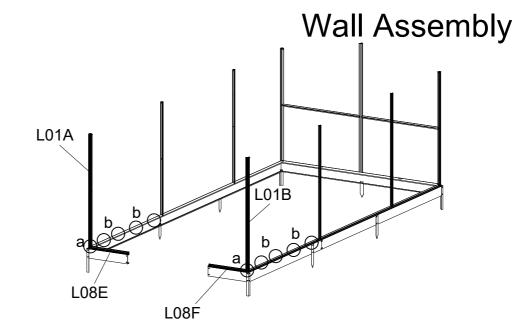


Z08 distances reference

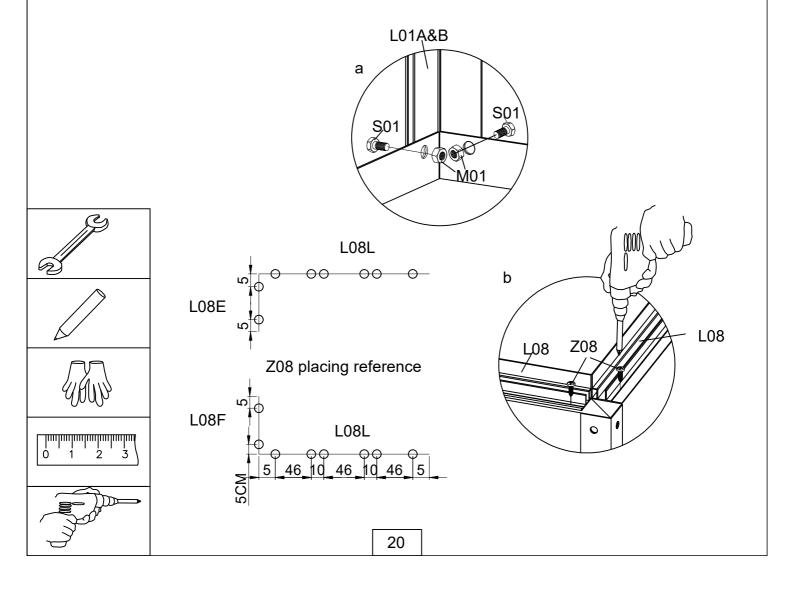




| PART     | NO             | QTY |
|----------|----------------|-----|
|          | L01A           | 1   |
|          | L01B           | 1   |
|          | L08E           | 1   |
|          | L08F           | 1   |
|          | S01<br>M6X12   | 4   |
| <b>O</b> | M01<br>M6      | 4   |
| 4        | Z08<br>M4.2X16 | 16  |

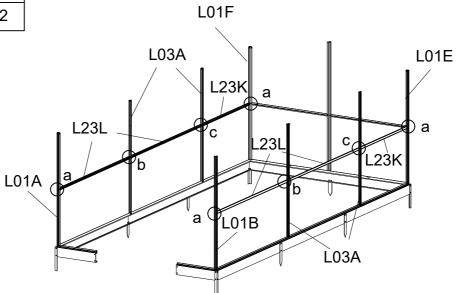


- 1. Place L08E & L08F on the base plinth and fix L01A & L01B onto L08L & L08E/L08F, using S01 & M01.
- 2. Use a powered screwdriver to fix the self-tapping screws (Z08) through the cills (L08L,L08E & L08F) and base plinth (A2 & C2). The screws should be evenly spaced to ensure a neat appearance. The recommended spacing of the screws is 460mm. You can mark the painted surfaces with a pencil.

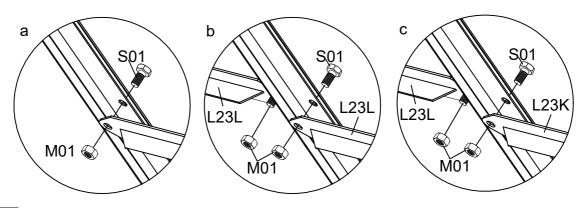


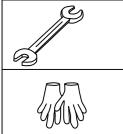
| PART | NO           | QTY |
|------|--------------|-----|
|      | L23K         | 2   |
|      | L23L         | 4   |
|      | S01<br>M6X12 | 12  |
|      | M01<br>M6    | 12  |

### Wall Assembly



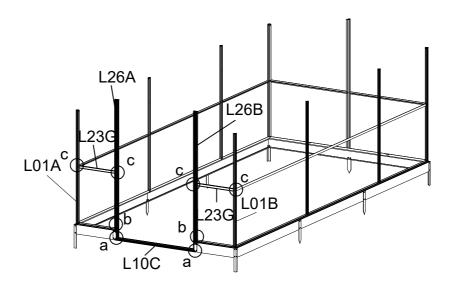
Fix L23L \* 4PCS L23K \* 2PCS onto L01A, L01B, L03A, L01E & L01F, using S01 & M01



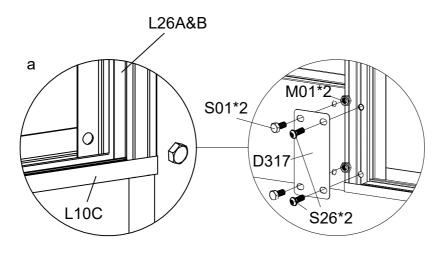


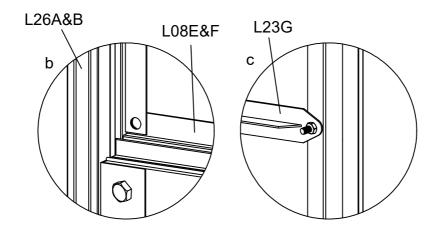
| PART | NO           | QTY |
|------|--------------|-----|
|      | L10C         | 1   |
|      | L23G         | 2   |
|      | L26A         | 1   |
|      | L26B         | 1   |
| 0 0  | D317         | 2   |
|      | S01<br>M6X12 | 12  |
|      | M01<br>M6    | 12  |
|      | S26<br>M6X12 | 4   |

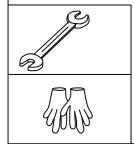
### Wall Assembly



Fix L26A onto L08E, L26B onto L08F using S01 & M01







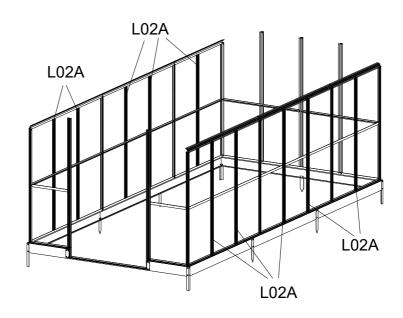
Fix 23G \* 2PCS onto L01A & L26A /L01B & L26B, using S01 & M01.

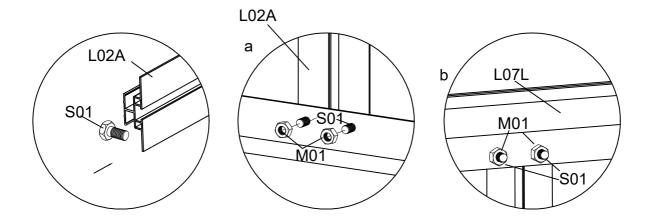
| PART | NO           | QTY | Wall Assembly  |
|------|--------------|-----|--|
|      | L07K         | 2   |  |
|      | L07L         | 4   | Fix L07L * 2PCS and L07K onto L01A, L03A & L01F and L01B, L03A & L01E, using S01 & M01 |
|      | L26C         |     | L26C<br>L07K L26C  |
|      | S01<br>M6X12 | 24  | L07L c a   |
|      | M01<br>M6    | L0° | b L07L e c L07K  |
| a    | _ \          | F   | 01   |
|      |              |     | 26C<br>S01<br>M01  |

### **PART** NO QTY L02A 10 S01 M6X12 50 M01 M6 50

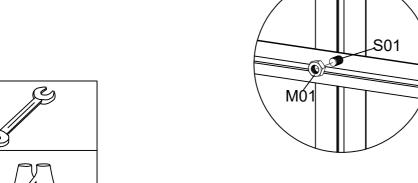
# Wall Assembly

Fix L02A (10pcs) to L08L and L07L using S01 & M01.





Slide a bolts (S01) into each L02A bolt channel. One is to fix L23C

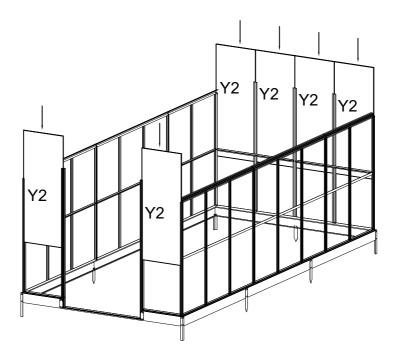




| PART | NO | QTY |
|------|----|-----|
|      | Y2 | 6   |

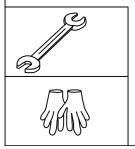
# Wall Assembly

### Put the panels into positions



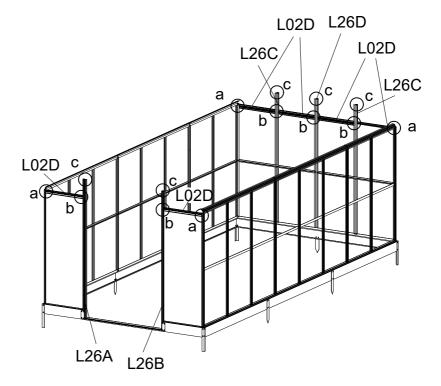


! Attention:Remove the protective films from both sides of each polycarbonate panel, before inserting into aluminum channels. Ensure the milky white film faces towards the Sun.

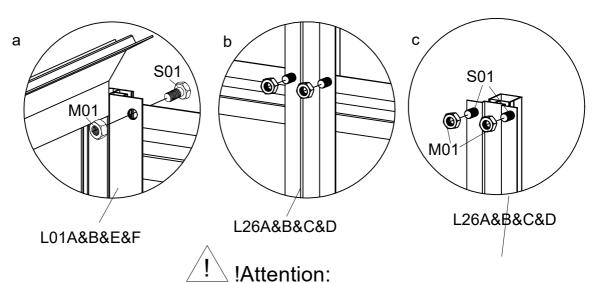


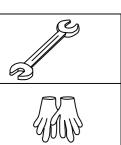
| PART | NO           | QTY |
|------|--------------|-----|
|      | L02D         | 6   |
|      | S01<br>M6X12 | 22  |
|      | M01<br>M6    | 22  |

### Wall Assembly



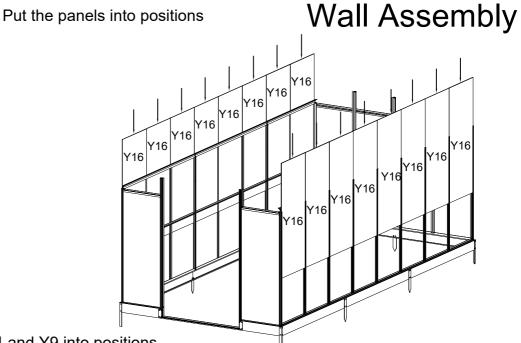
Fix L02D \* 6PCS as shown, using S01 & M01



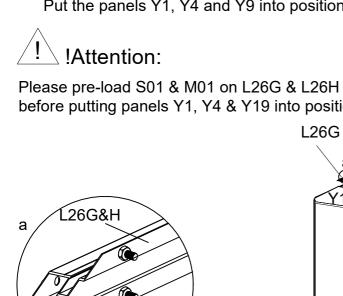


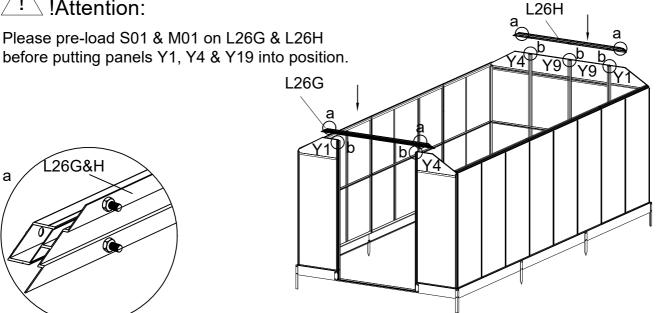
Please pre-load S01 & M01 on L26A, L26B, L26C and L26D before putting panels Y1, Y4 & Y19 into position.

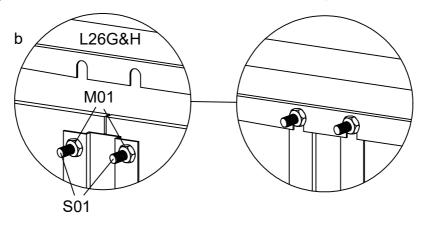
| PART | NO           | QTY |
|------|--------------|-----|
|      | L26G         | 1   |
|      | L26H         | 1   |
|      | Y1           | 2   |
|      | Y4           | 2   |
|      | Y16          | 16  |
|      | Y9           | 2   |
|      | S01<br>M6X12 | 8   |
|      | M01<br>M6    | 8   |

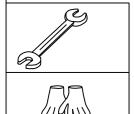


Put the panels Y1, Y4 and Y9 into positions.



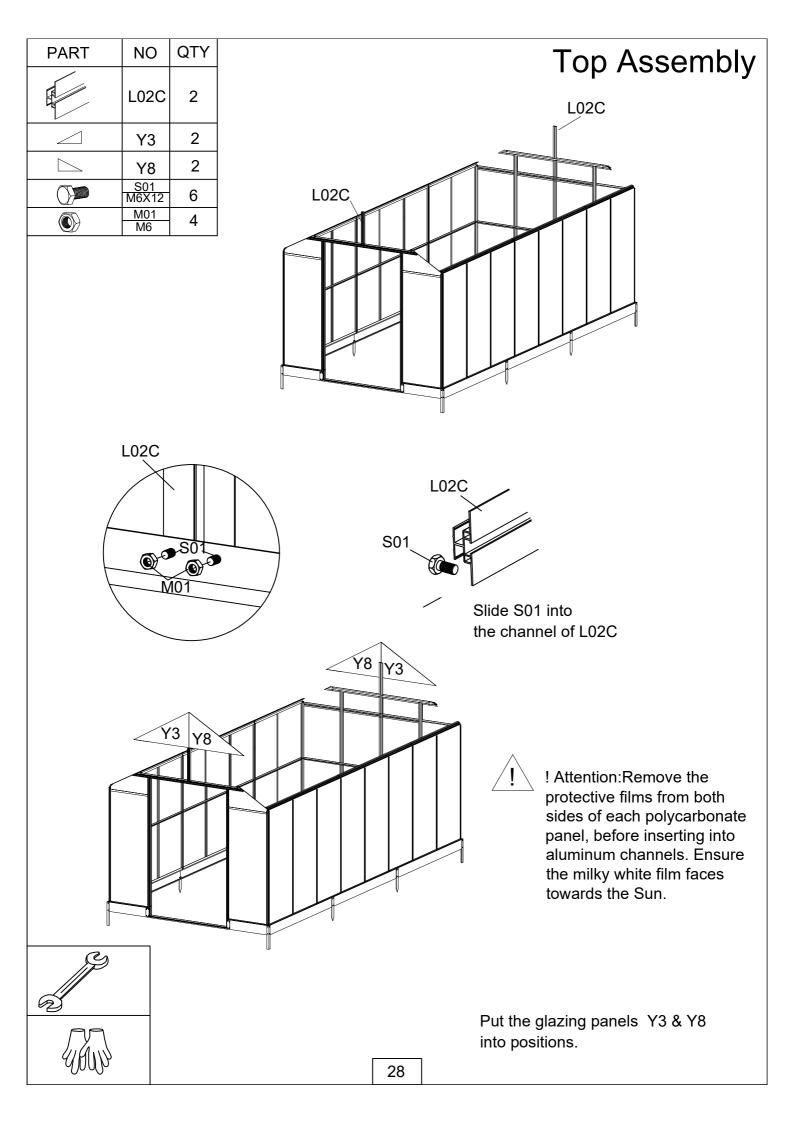




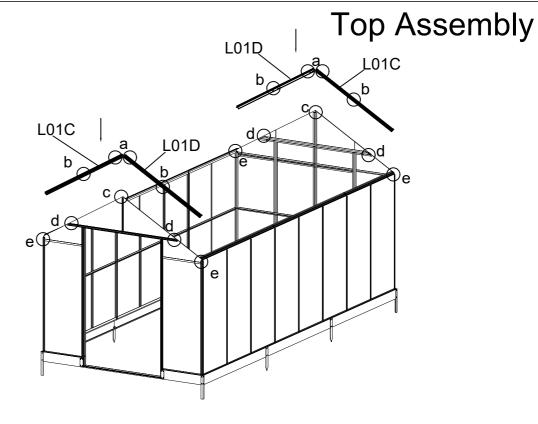


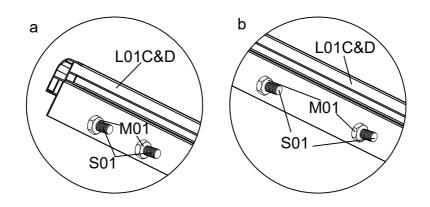
Loose the nuts M01 on L26A, L26B, L26C & L26D to allow L26G & L26H fitted in.

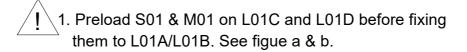
After the screws are inserted into the U-shaped opening, it is necessary to adjust the structure and lock it.

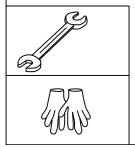


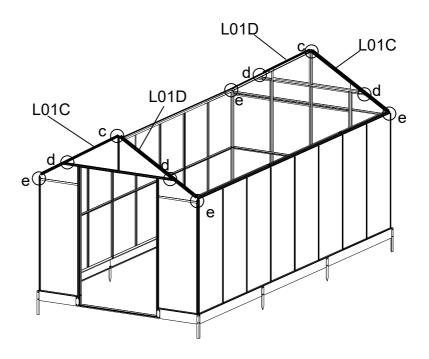
| PART | NO           | QTY |
|------|--------------|-----|
|      | L01C         | 2   |
|      | L01D         | 2   |
|      | D17          | 2   |
| · .  | D309         | 4   |
|      | S01<br>M6X12 | 20  |
|      | M01<br>M6    | 22  |



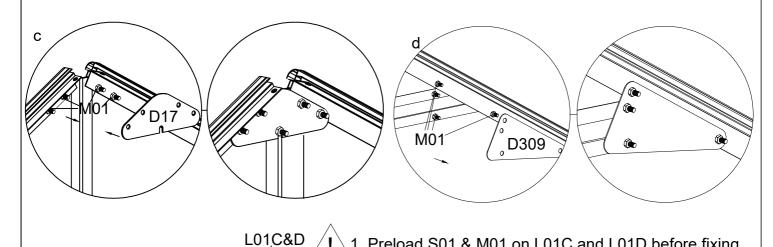


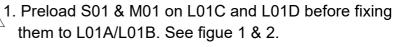






If the holes are not aligned, it may be due to uneven foundation, adjust the foundation and frame to solve the problem





- 2. Bolt L01C and L01D with plate D17, using S01 & M01 preloaded. And then fix them to L02C, using S01 & M01.
- 3. Fix L01C & L01D to L26G & L26H with the plate D309, using the S01 and M01 preloaded above.
- 4. Fix L01C & L01D to L01A & L01B, using S01 & M01.

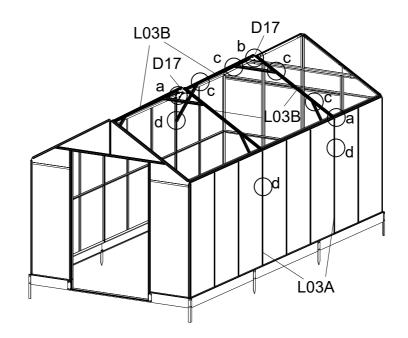


е

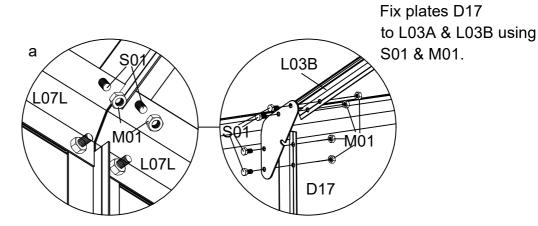
S01

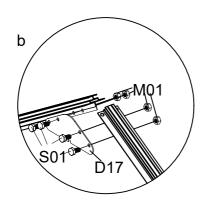
M01

| PART | NO           | QTY |
|------|--------------|-----|
|      | L03B         | 4   |
|      | L23E         | 6   |
|      | D17          | 6   |
|      | S01<br>M6X12 | 44  |
|      | M01<br>M6    | 44  |

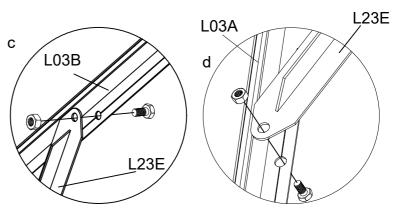


Fix glazing bars L03B to the eaves and the ridge profiles using S01 & M01

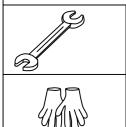




Fix plates D17 to the two L03B using S01 & M01.

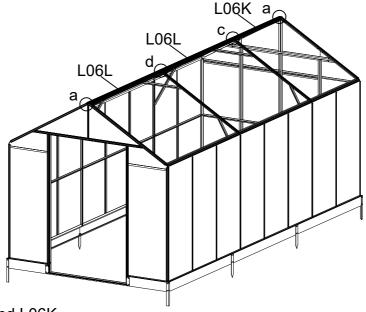


Fix L23E to L03A and L03B using S01 & M01.

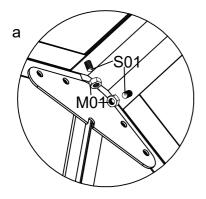


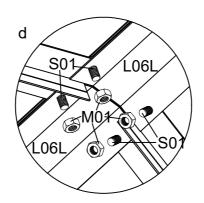
# PART NO QTY L06K 1 L06L 2 S01 M6X12 M01 M6 12

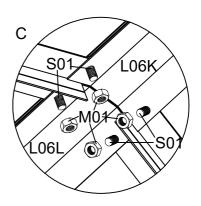
### Top Assembly

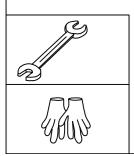


Bolt the ridge L06L (2pcs) and L06K to L01C, L01D and L03B, using S01 & M01.

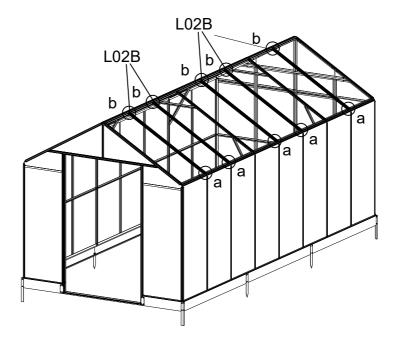


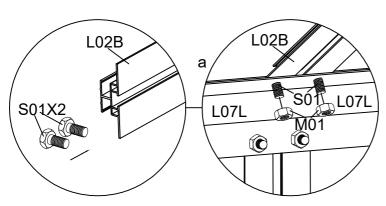






| PART | NO    | QTY |
|------|-------|-----|
|      | L02B  | 10  |
|      | S01   | 00  |
|      | M6X12 | 60  |
|      | M01   | 40  |
|      | M6    | 40  |

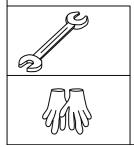




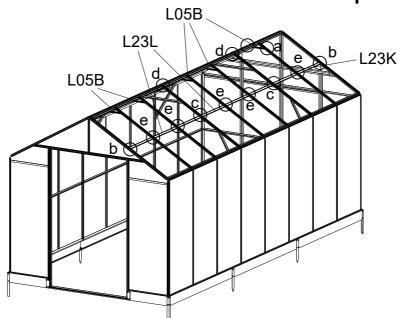
L06L
L02B b
S01
M01

Slide 2 bolts (S01) into each L02B bolt channel to be used later.

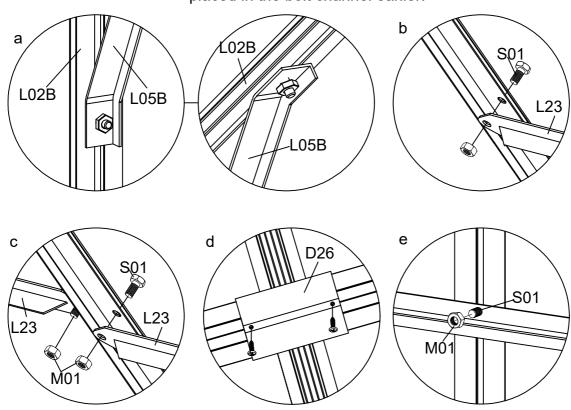
Fix glazing bars L02B (10pcs) to the eaves and the ridge profiles with S01 & M01



| PART | NO             | QTY |
|------|----------------|-----|
| 6    | L23K           | 2   |
| 6    | L23L           | 4   |
|      | L05B           | 5   |
|      | D26            | 2   |
|      | S01<br>M6X12   | 12  |
|      | M01<br>M6      | 32  |
| 4    | Z08<br>M4.2X16 | 4   |

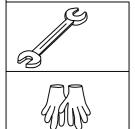


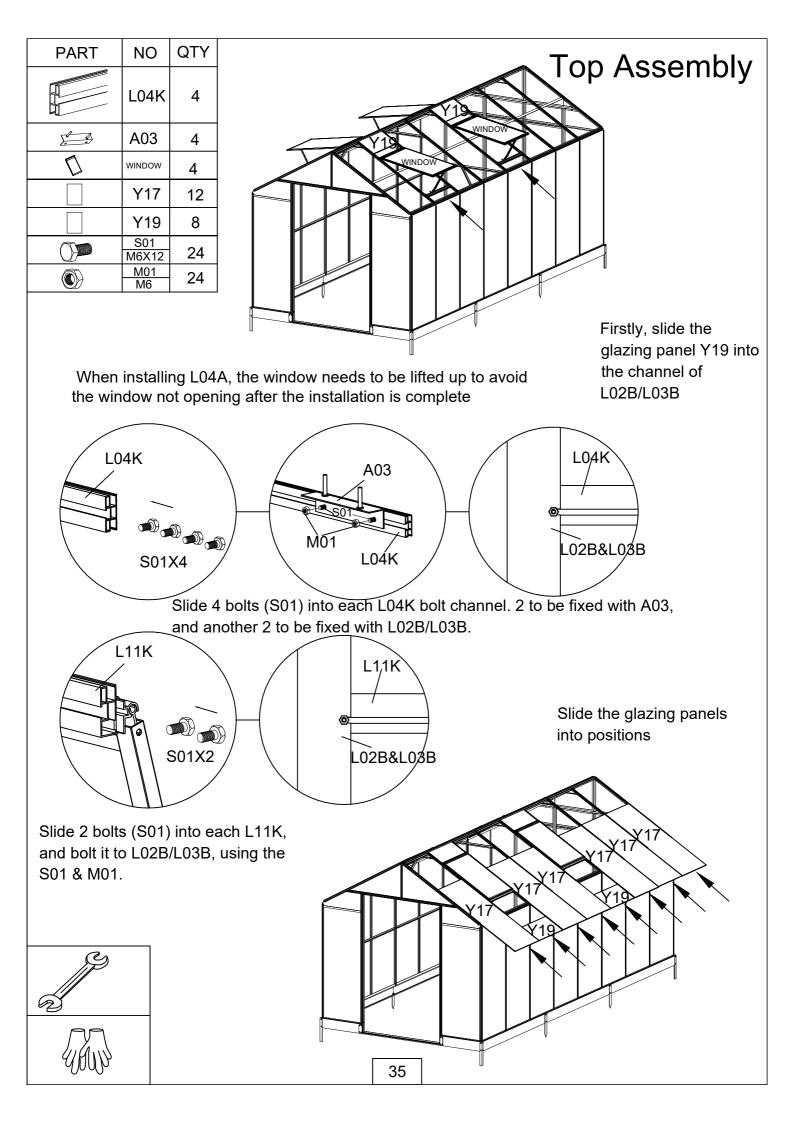
Bolt L05B (d pcs) to L02A & L02B using the S01 bolt placed in the bolt channel earlier.



Bolt L23L to L01C/L01D & L03B with S01 & M01. Fix D26 to L06L from outside with self-tapping screws Z08, using a powered screwdriver.

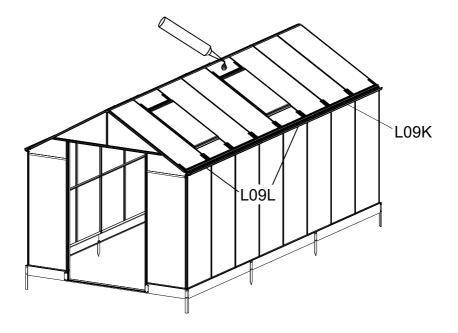
Bolt L23L to L02B using the S01 bolt placed in the bolt channel earlier.

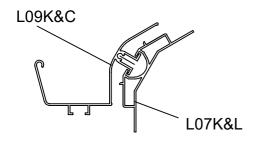




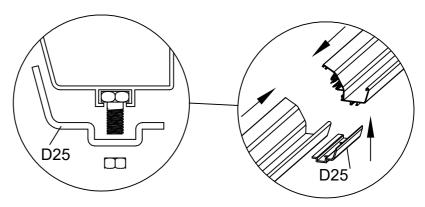
| PART | NO           | QTY |
|------|--------------|-----|
|      | L09K         | 2   |
|      | L09L         | 4   |
| Æ\$  | D25          | 4   |
|      | S01<br>M6X12 | 8   |
|      | M01<br>M6    | 8   |

After the panels and windows are in position, put some silicone sealant around to avoid leaking water.

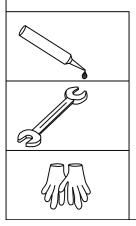




When the panels are completely inserted, fix gutter profile L09K&L Tap it gently into position with a rubber mallet.

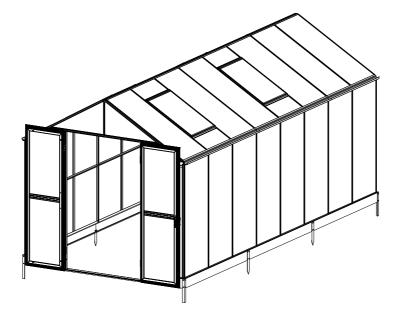


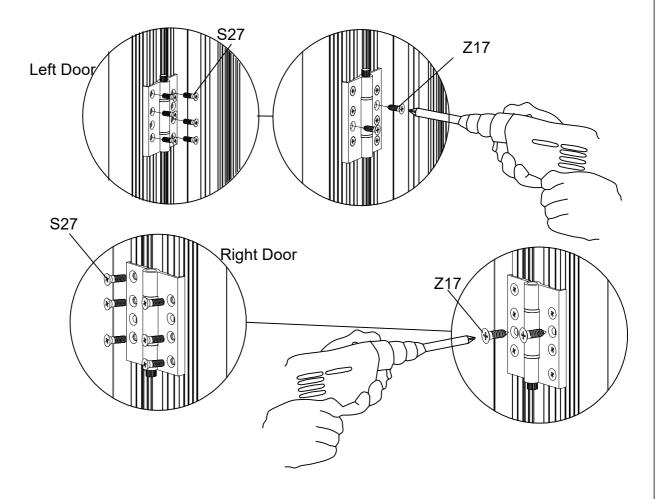
Slide 1\*S01 into the bolt channel of both L09K&L, fix D25 to L09K&L using S01 & M01.

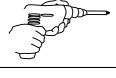


| PART     | NO             | QTY |
|----------|----------------|-----|
| Ш        | D00R-L         | 1   |
| Ш        | D00R-R         | 1   |
| 60.0     | A51            | 4   |
| <b>4</b> | Z17<br>M4.8X16 | 8   |
|          | S27<br>M5X12   | 24  |

# **Door Assembly**





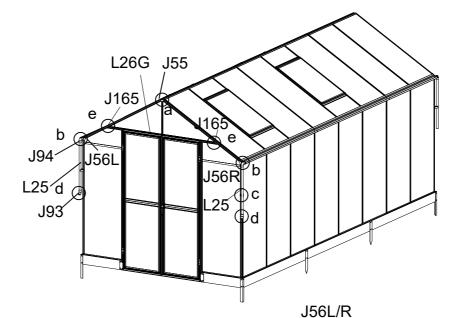


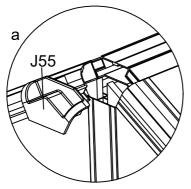


Fix A51(4 PCS) one side on the door profile and the other side to L26A/L26B using S27. Then secure with Z17.

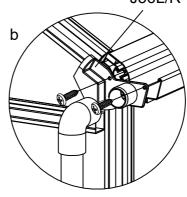
| PART        | NO             | QTY |
|-------------|----------------|-----|
| <b>©</b>    | J55            | 2   |
| 1300        | J56R           | 2   |
| <b>5</b> .7 | J56L           | 2   |
| 8           | J94            | 4   |
|             | L25            | 4   |
| Œ)          | J93            | 4   |
|             | J165           | 4   |
|             | J166           | 4   |
| <b>(+)</b>  | Z08<br>M4.2X16 | 4   |
| 4           | Z02<br>Ø4X16D  | 8   |

### **Accessories Assembly**

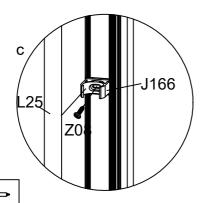




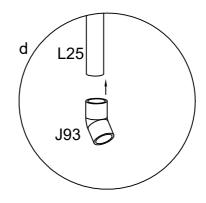
Fix the cover caps J55 into the ridge profile



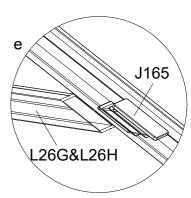
Fix the cover caps (J56L/R) carefully with Z02. Be careful to ensure that the screws are driven in straight and in the correct position (see detail drawings).



Drill a hole in L01A/L01B, approximately 3mm diameter and 400mm down from the gutter. Fix the J166 downpipe bracket with Z08 screws and then clipthe L25 downpipe into the J166 bracket.



If you wish to eliminate leaks, use glue when fixing the downpipe bends (not provided).



Cover both ends of L26G with cap J165



