



GREENHOUSE INSTALLATION MANUAL

Models No 1, No 2 and No 3



hello@lahehouse.com



Dear Customer

Thank you for choosing Lähe Greenhouse!

Please read this guide carefully before installing a greenhouse.
Reading the installation instructions will help you avoid mistakes when installing the greenhouse and ensure better results in less time.

If you have no previous experience in construction working or installing a greenhouse, we recommend using the services of an experienced craftsman or construction company.

ATTENTION: When opening the greenhouse packaging, the presence of parts and possible defects must be checked immediately. Missing details and defects must be reported before installing the greenhouse. Otherwise, the greenhouse may lose its ten-year warranty.

All Lähe greenhouses are made of natural, high-quality Nordic heat-treated pine. Wood is a natural material, so it is not possible to avoid twigs, cracks caused by drying, differences in shade and other characteristics of wood. Since the wooden parts of our greenhouses are made of natural wood and not chemically treated, it is natural that they will turn gray over time.

We wish you a successful installation!

Lähe House



TOOLS

Please check that you have all necessary tools and equipment before installation!

Tools and accessories required for installation.

Cordless drill (preferably 2pcs), cordless drill bits (TX15-40, HEX4), Phillips screwdriver, ladder, clamping screws (2pcs), wood drill (5mm and 6mm), slats, wrench 10mm (2pcs), support bar (eg wooden, 4pcs, with a length of about 3 m.).

Fasteners

1. Wood screw 6,5X160 (bit TX30)



2. Wood screw 5x70 (bit TX25)



3. Wood screw 6x80 (bit TX30)



4. Wood screw 4x20 (bit TX20)

5. Wood screw 5x40 (bit TX25)

6. Wood screw 5x50 (bit TX25)

5. Glass screw 6,3x30 (bit HEX4) and silicone washer



6. M6 bolt ja nut



7. Minifix" fastener



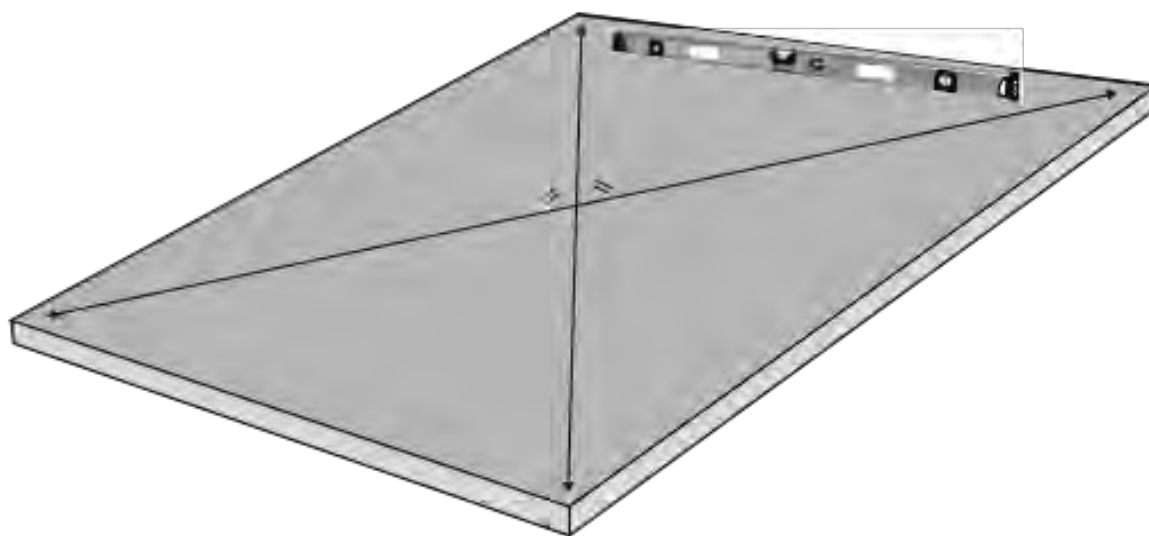


1. FOUNDATION

Greenhouse installation always starts with the preparation of the foundation. The appropriate type of foundation depends on the soil, the purpose and the size of the greenhouse. For Lähe greenhouses, a strong concrete slab or tape foundation must be used.

The foundation must be horizontally leveled and all angles 90 degrees. Only a proper, level and load-bearing foundation ensures an impeccable result. A failed foundation makes it difficult to match the decals, causes problems with the operation of doors and windows, and reduces the stability and lifespan of the greenhouse. We recommend consulting a construction specialist when choosing a suitable foundation.

NB! Subsequent damage to the greenhouse due to the wrong foundation is not covered by the warranty!



NB! Laying the foundation in the garden

Leave at least 1.9 m free space on both sides. Required for installing roof windows!



2. DETAILS

Numerous wooden details can be confusing at the arrival of the greenhouse, but sorting the details can help solve it.

Remove the parts from the packaging and assemble the similar parts into bundles. Follow the markings on the details. Two parts with the same symbol will be connected during installation.

During sorting, you get full confidence that all the necessary details are present and without defects.

NB! Do not paint over symbols and markings on details! These are necessary to put right details together



After sorting the details and thoroughly reading the installation instructions, start installing the greenhouse on the foundation.

3. END WALLS (FRONT AND BACK WALLS)

Back wall:

OS-01 (1pc)

OP-01 (3pcs)

AD-03 (1pc)

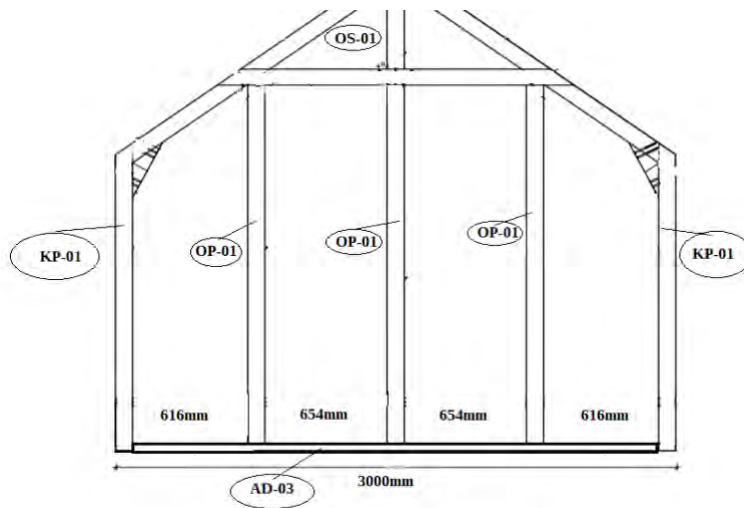
KP-01 (2pc)

Follow the markings!

Holes drilled in advance, screws placed in holes. Tighten to the end.

Check that the gaps between the details are tight and equal.





Front wall:

OS-01 (1tk)

UP-01 (2tk)

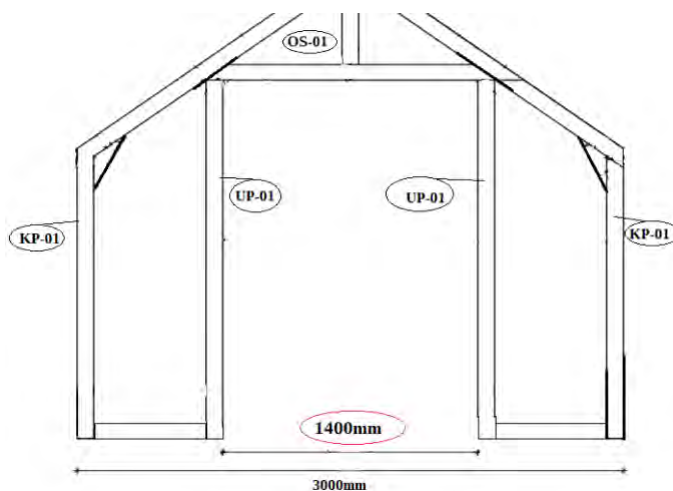
KP-01 (2tk)

Follow the markings!

Holes drilled in advance, screws placed in holes. Tighten to the end.

Check that the gaps between the details are tight and equal.

NB! Make sure that the width of the door opening is 1400 mm from both the top and bottom (otherwise the doors will not open properly. Look also point 9)





4. ROOF BEAM INSTALLATION

Put the end walls upright and raise the brush beam on them.
To fix the end walls, use two longer wooden bars as a support and fasten them with a clamping screw.

PS! The distance between the front and back wall (measured from the outside):

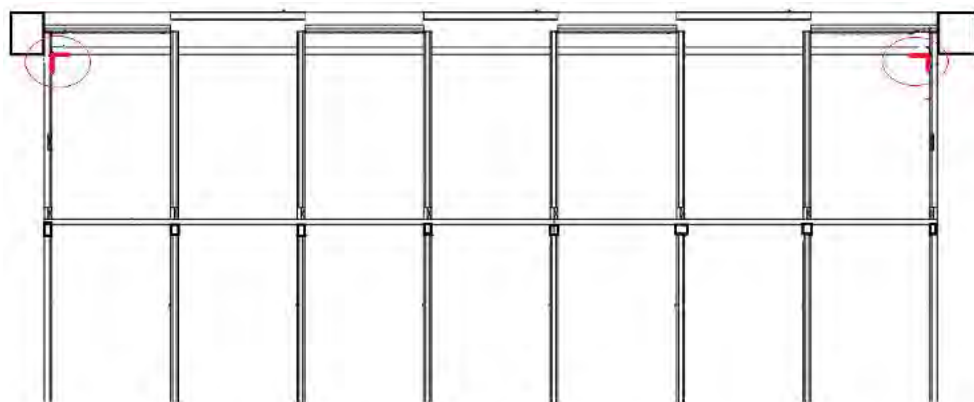
No 1 – 3542 mm

No 2 – 4242 mm

No 3 – 4942 mm



Attach the roof beam to the front and back wall (metal brackets are already attached to the roof beam).
Fasten with screws 5x40 (4pcs)





NB! The roof beam determines the position of the roof windows. Make sure the roof windows get to the desired side. The side of the roof windows is recognized by the location of the rain covers. Raise the roof beam to the ends in the desired direction.



5. ATTACHING THE RAFTERS TO THE ROOF BEAM CARRIERS (SK-01)

Place the end of the rafter in the metal carrier, mark on both sides, drill a hole (6mm) and fasten it to the metal carrier with an M6 bolt and nut. Make sure that the edge of the carrier does not cover the groove of the glass (distance approx. 2 mm) and the rafter should be as against the rear wall of the carrier as possible.



NB! Tighten the nuts only later after installing the middle detail! (see point 6)



6. INSTALLATION OF THE MIDDLE DETAILS (VP-01) BETWEEN THE RAFTERS

Place the middle detail between the two rafters so that the screw is visible from the hole and can be fastened with a round minifix fastener. Rotate the minifix fastener so that it tightens the middle detail firmly on the rafters on both sides. Make sure the minifix fasteners are properly tightened!

The round minifix fastener hole should face downwards (inward toward the ground).



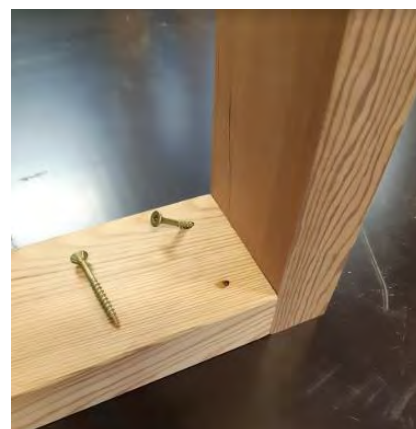
7. INSTALLATION OF BASE DETAILS BETWEEN THE RAFTERS

The base details are installed on the sides in two layers. All base details of the side are the same length, size 658x42x92mm.

7.1. Bottom layer, detail AD-01 (holes pre-drilled at the ends).

Place one bottom layer piece between each rafter on each side.

Attach the detail to the rafter with a screw. Tighten the 5x50 screw into the pre-drilled hole at an angle.





7.2. Top layer, detail AD-02 (holes pre-drilled).

The top layer or the second layer (finish) is attached to the bottom layer with two screws.

NB! You may currently skip some of them.

Do this only after attaching the greenhouse to the foundation and before attaching the glasss (see point 10).



8. INSTALLATION OF ROOF WINDOWS (KL-01)

The gaps between the rafters for roof windows are recognized by the higher rain cover on roof beam.

8.1. Attaching the roof window KL-01 to the roof beam

Place the roof window on the rafters and fasten it with a 4x20 screws to the roof beam (the hinges are pre-attached to the roof window frame)





8.2. Attaching the roof window grooved middle detail SV-01 between the rafters

Attach grooved middle detail (658x42x92mm) under each roof window. Fasten with 5x70 screws at each end (mark and drill holes in advance with a drill 4-5mm).



8.3. Installation of roof window automatic opener KA-01

Install the roof window automatic opener KA-01 according to the instructions. Installation instructions for the automatic opener are included in its packaging.

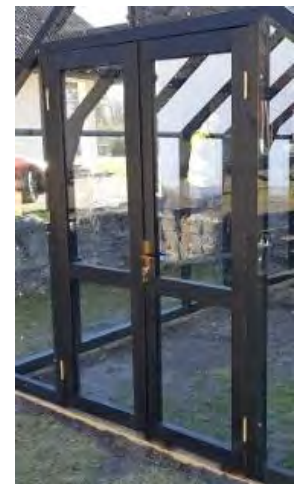
PS! The automatic roof window opener can also be installed after the greenhouse is completed!



9. INSTALLATION OF DOORS

Door posts UP-01 must be vertically level and exactly 1400mm from each other from the top and bottom! (otherwise the doors will not work properly).

Make sure that the hinges on the door and the wooden post fit (the posts are in the right direction and not in shift)





Lift the doors to the hinges, the door with the lock goes to the right.

Attach the door latches to the left side door (inwards, downwards and upwards).

Install the door stops on the outside so that the side glass will not be damaged when the door is opened.



NB! OPENING A DOOR WITHOUT THE DOOR STOPS INVOLVES DANGER TO BREAK THE SIDE GLASS (the door handle goes to the side glass. It is definitely necessary to limit the turning area of the door!)

To install the glass, the doors can be temporarily removed from the hinges (can be lifted back later).

9.1 Door hinge adjustment (if required)

If necessary, the height of the doors can be increased or decreased by means of hinges.

To adjust, remove the threaded covers on the hinges and then the door can be raised / lowered to the desired height with a hex key.

After adjustment, replace the covers on the hinge.



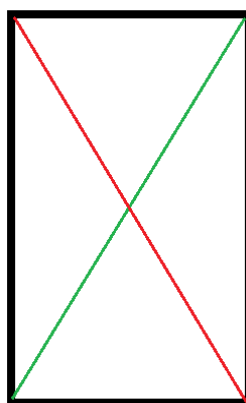
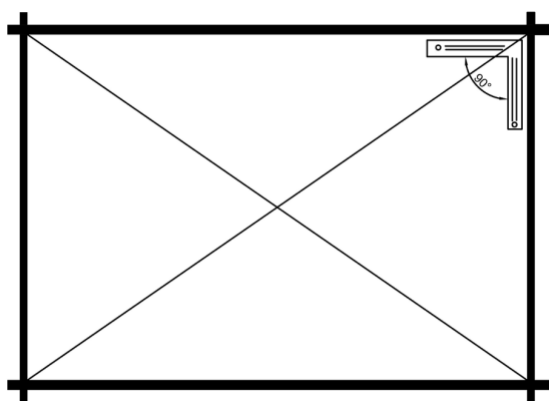


10. ATTACHING THE GREENHOUSE TO THE FOUNDATION

NB! Make sure in advance that the corners of the greenhouse are 90 degrees and the diagonals (red and green) are of equal length.

Attach the greenhouse to the foundation in a suitable place. Pre-drill the hole. Depending on the foundation type, choose the fastening method (screw, dowel, etc.).

NB! It is recommended to attach both ends and sides.



11. INSTALLATION OF GLASSES

Make sure in advance that all the rafters of the greenhouse are vertically level. All rafters must be level before installation of glasses!!!

If necessary, add a side support for the end wall of the greenhouse frame (it can be removed after all side glasses have been attached).

When installing glasses, we recommend the following order:

- 1) roof glasses
- 2) side glasses
- 3) end glasses



The glasses are fixed with a screw and the transparent silicone washer must be between the glass and the screw head.

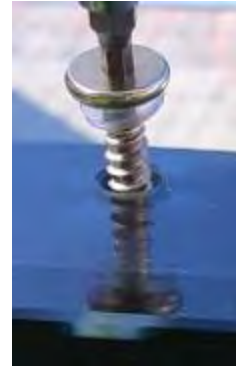


Be especially careful when attaching the glasses !!!

Tightening the screw too hard will break the glass. It is recommended to set the battery drill to the lowest strength and speed (eg 15). Turn the last part by hand (tighten until the silicone washer retains its shape and original thickness).

The last part must ALWAYS tightened by hand!!!

NB! Broken glass during installation is not subject to warranty replacement !!!

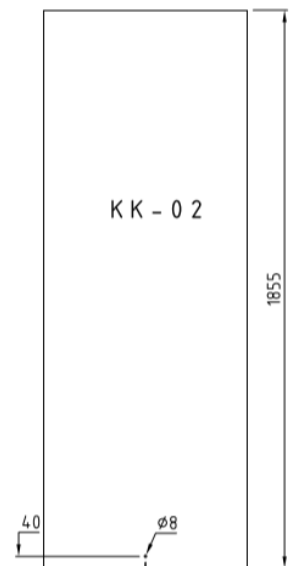


11.1. Installation of roof glasses

The roof glass is 1855 mm long, one mounting hole at the bottom.

Carefully place the first end of the glass in both glass grooves and push it all the way against the roof beam. Do not push the glass with force (glass must move lightly). Make sure that the glass is evenly grooved and drill a hole to the middle detail with a depth of 30 mm. Wood drill size 5mm. Fasten the glass with a glass screw 6.3x30 + silicone washer.

NB! Do not over tighten!





11.2. Installation of side glasses

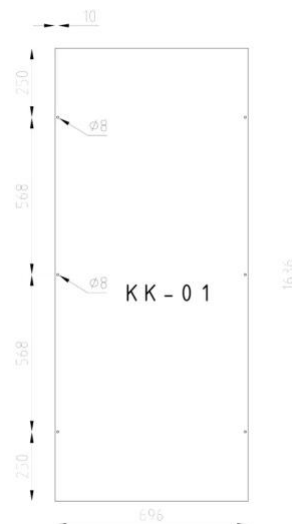
**It is absolutely vital to make sure the rafters are completely level!
If necessary, adjust the greenhouse frame.**

The side glass is 1636mm long, the holes are on both sides.

Place the upper end of the glass under the edge of the roof glass and the lower edge of the side glass must be aligned with the space between the base details top and bottom layer.

Hold the glass in place, drill holes with a depth of 30mm.

Fasten the glass with a glass screw 6.3x30 + silicone washer.



NB! Make sure that the glasses are evenly spaced and that the attachment points line up.

Also make sure that the glass is evenly aligned with its lower edge.

NB! As an aid, for example, a putty knife or the like can be used, which can be fixed between two layers of the base detail and on which the glass can be temporarily supported.



11.3. Installation of end glasses

Installed with the same logic as the side windows.

The lower edge of the end glass OK-02 remains at the same height as the side glass KK-01 (height from the foundation).

The wooden block is an aid (included in the set, at the same height as the base detail 42mm).

