

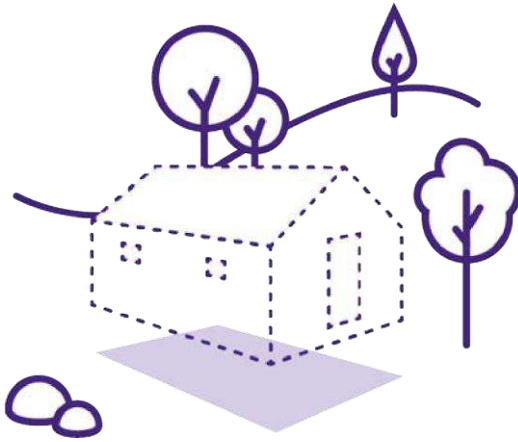


Assembly

- Assembly overview and video tutorials
- Assembly manuals
- Maintenance manual
- Common mistakes (check list)
- Contact



Better Shelter assembly overview



7 / 8 h the first RHU
4 / 6 h on speed



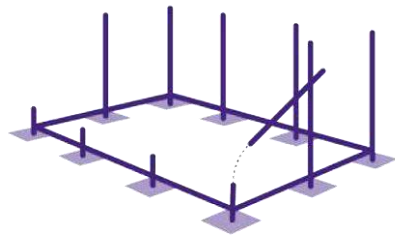
4x

1. Identify appropriate location and ground conditions

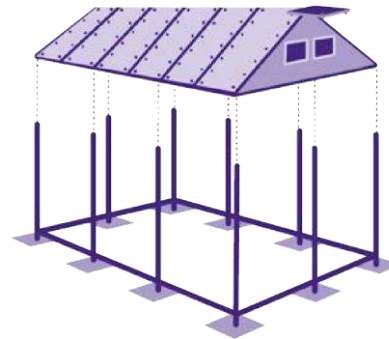
2. Install anchors and foundation
([video 1](#))([video 2](#))([video 3](#))([video 4](#))
([video 5](#))

3. Assemble roof structure
([video 6](#))([video 7](#))([video 8](#))

4. Attach panels, ventilation and solar panel
([video 9](#))([video 10](#))([video 11](#))
([video 12](#))([video 13](#))



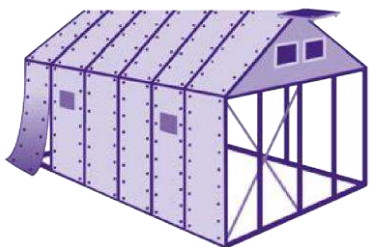
5. Install pipes on foundation
([video 14](#))



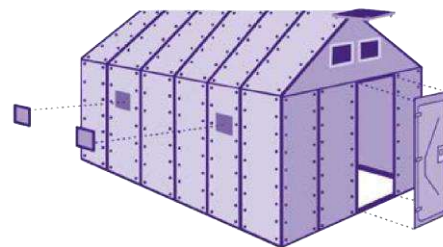
6. Mount roof on frame



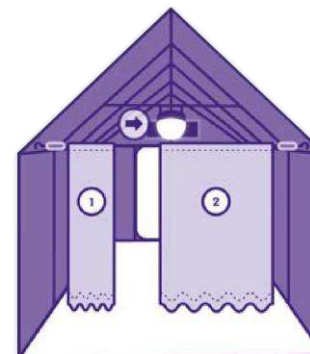
7. Add pipes and cross wires



8. Attach panels
([video 15](#))



9. Install windows and door
([video 16](#))([video 17](#))



10. Install lamp and divider
([video 18](#))

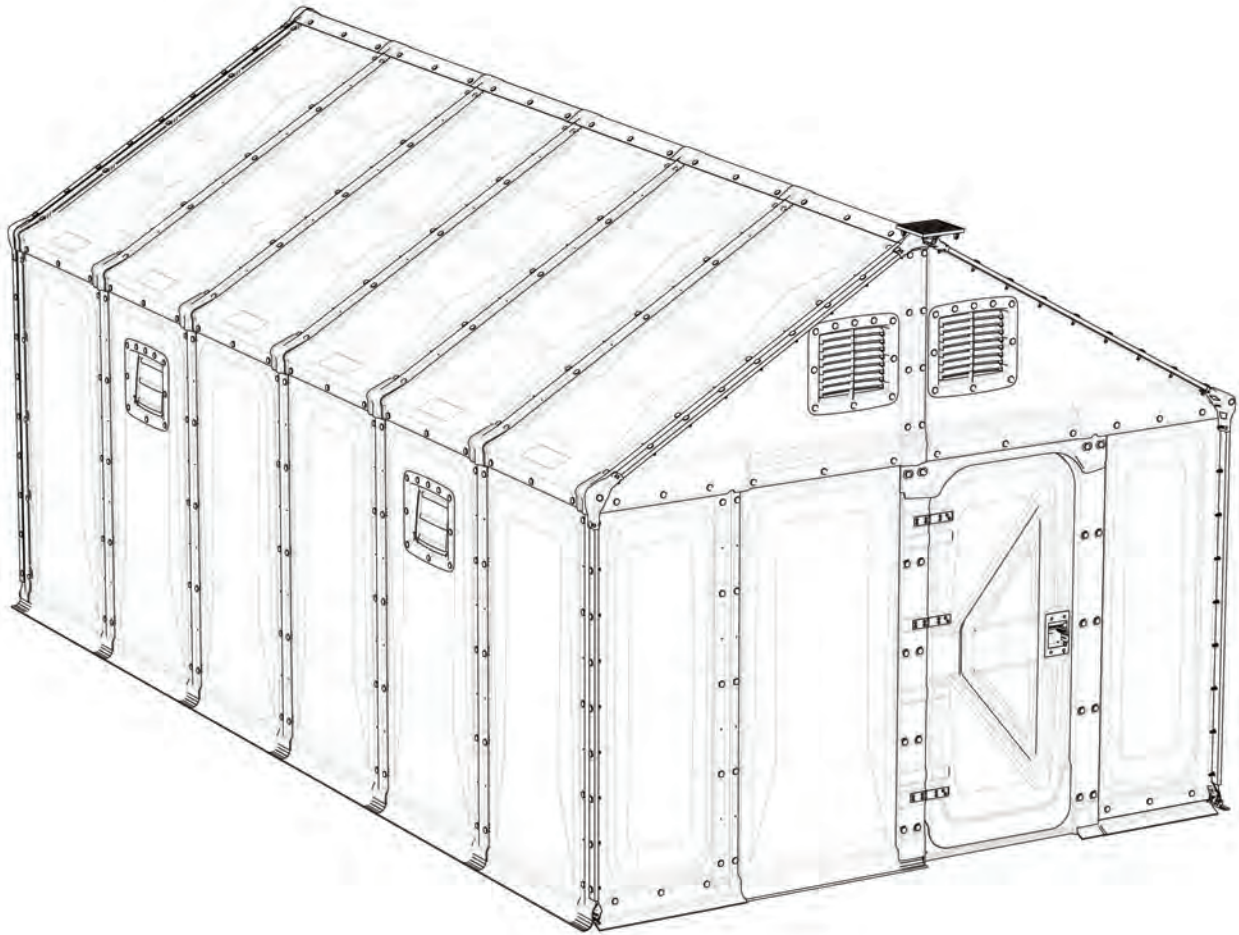


11. Install floor
([video 19](#))

Better Shelter Pre Assembly Manual

(192)

Manual de Montaje
Manuel de Montage
Montageanleitung
Manuale di Montaggio

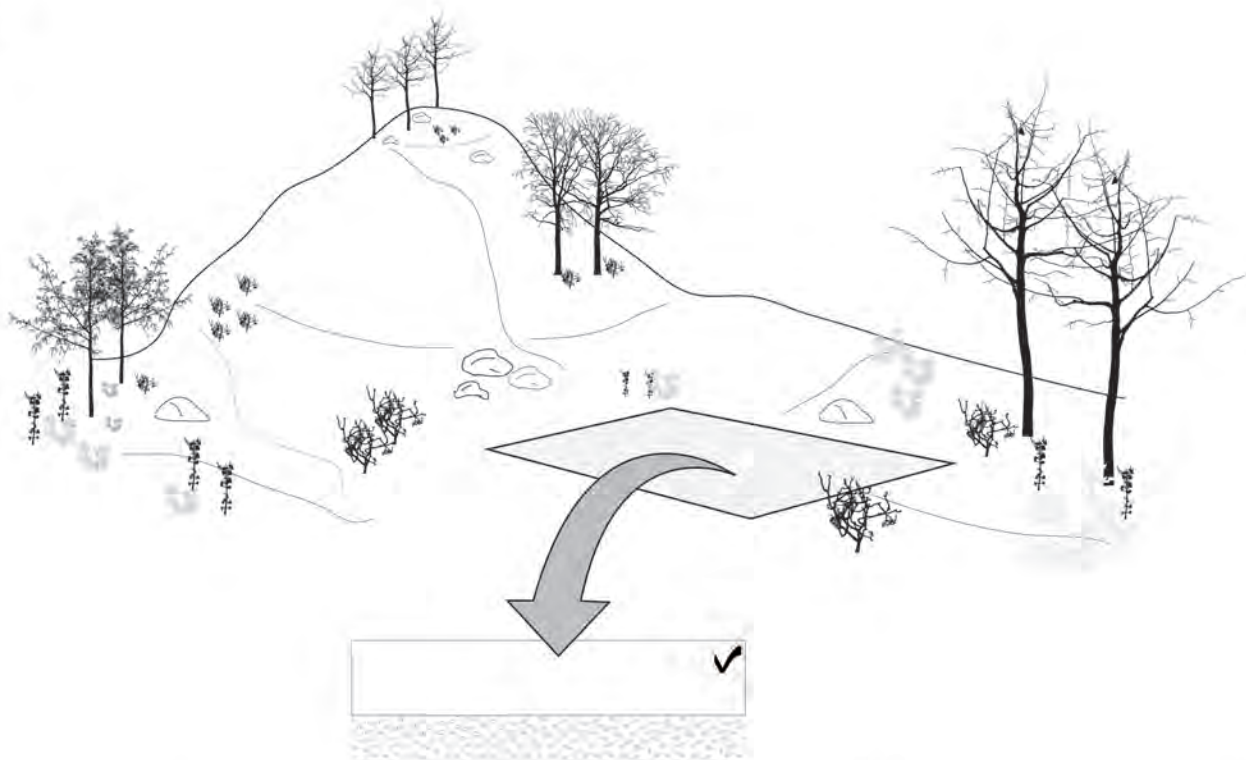


Important control steps marked in red

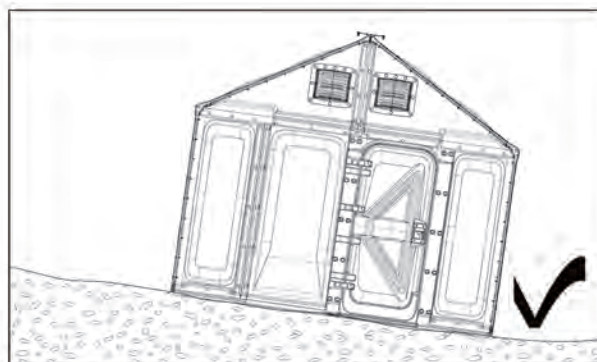
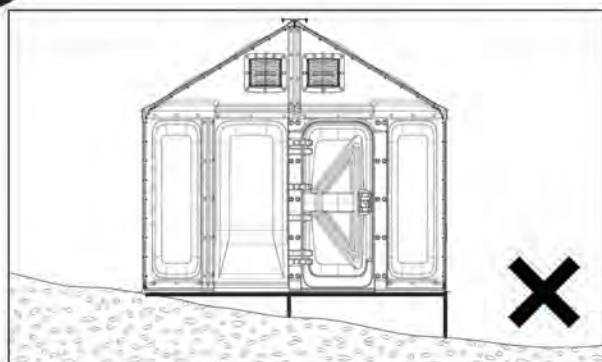
خطوات مهمة للتحكم ملونة باللون الأحمر

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Shelter
.org**

1

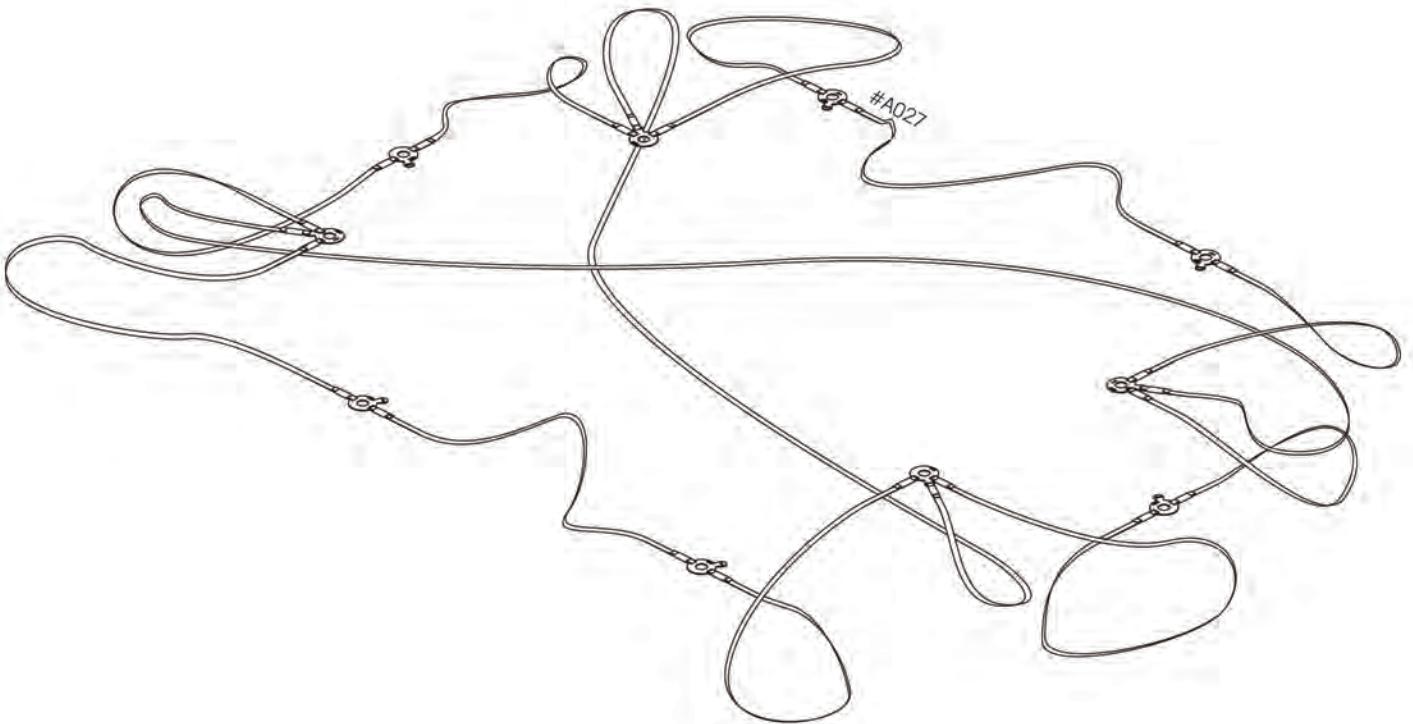
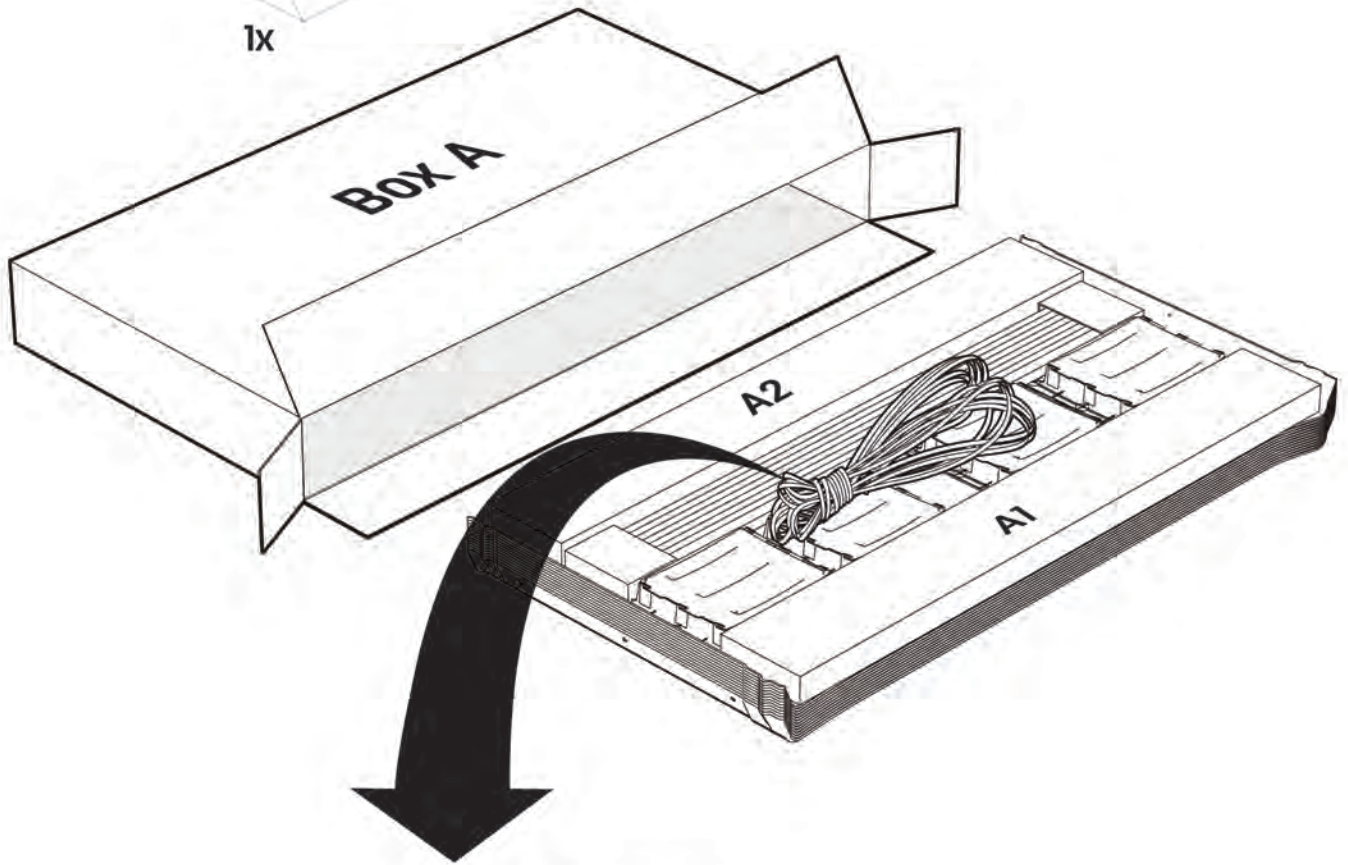
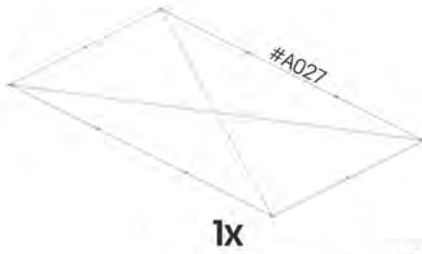


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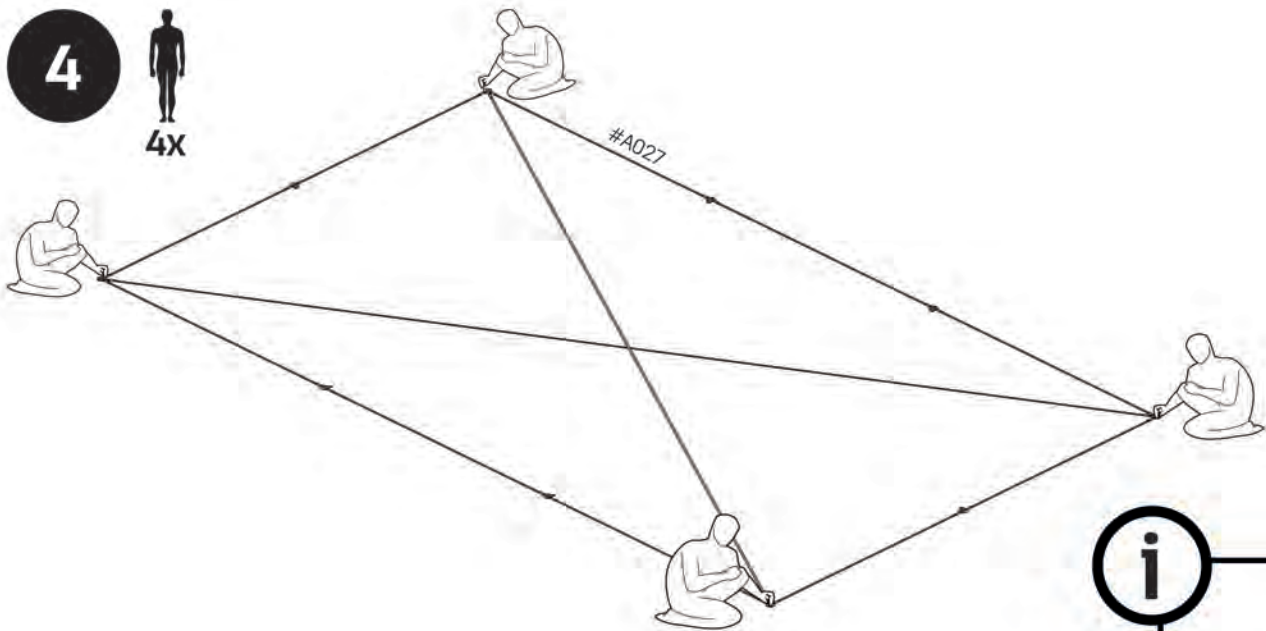


Max 6 degrees slope

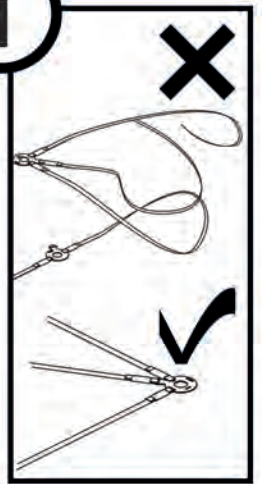
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4

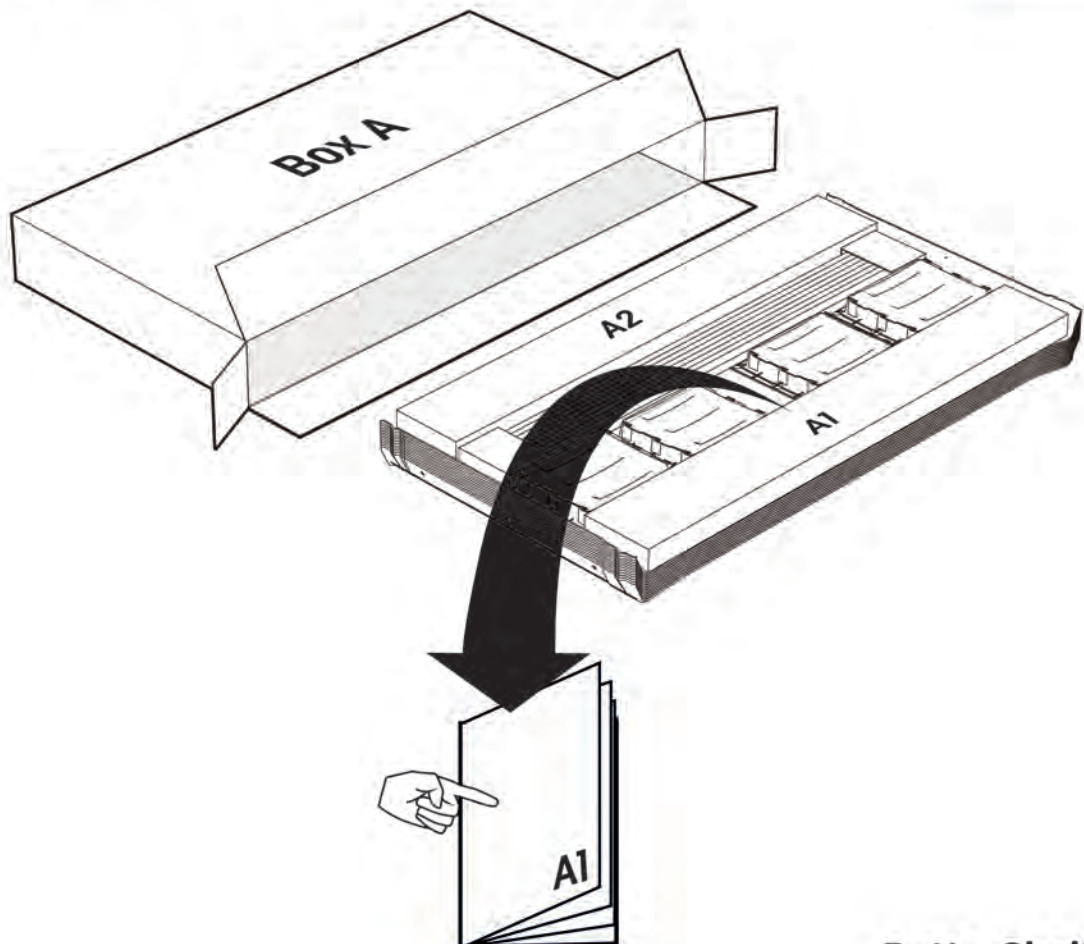


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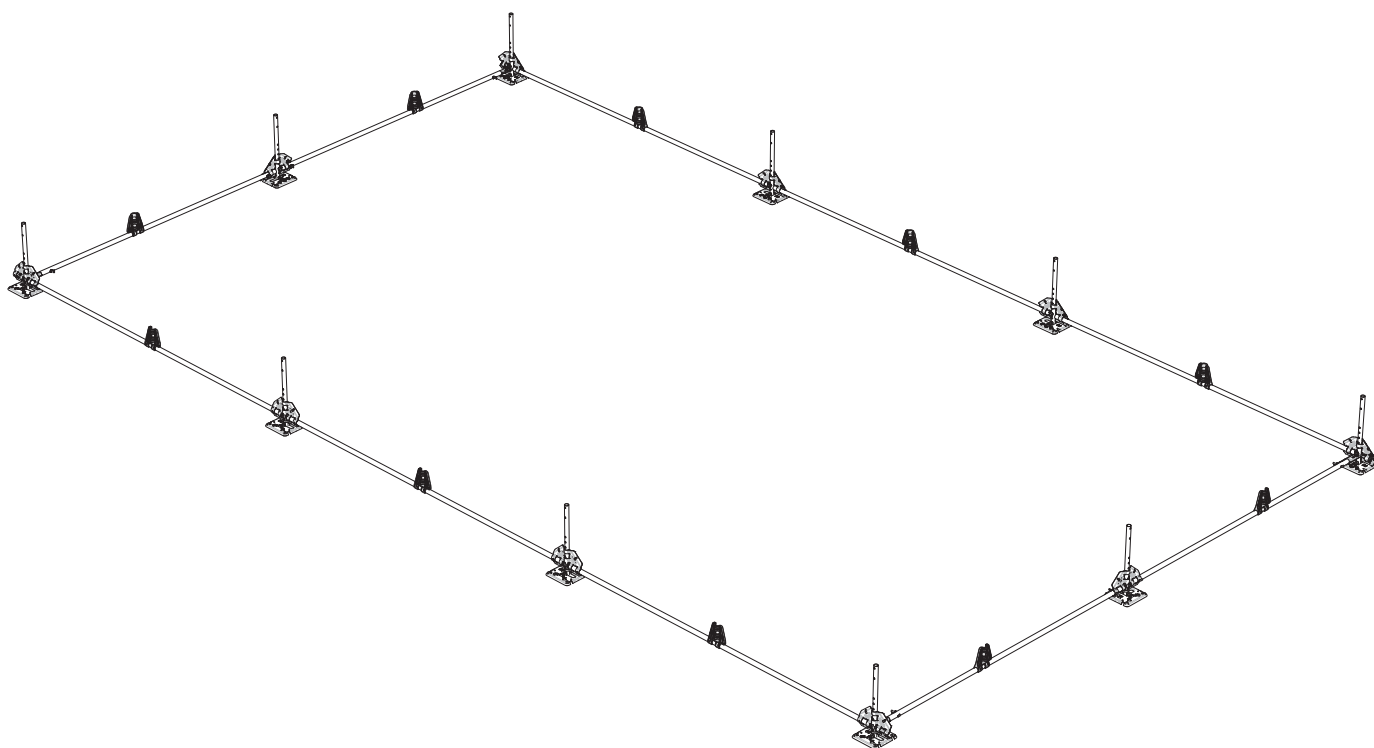
i

CONTENTS Box A



Better Shelter **A1 _ Foundation** **Assembly Manual**

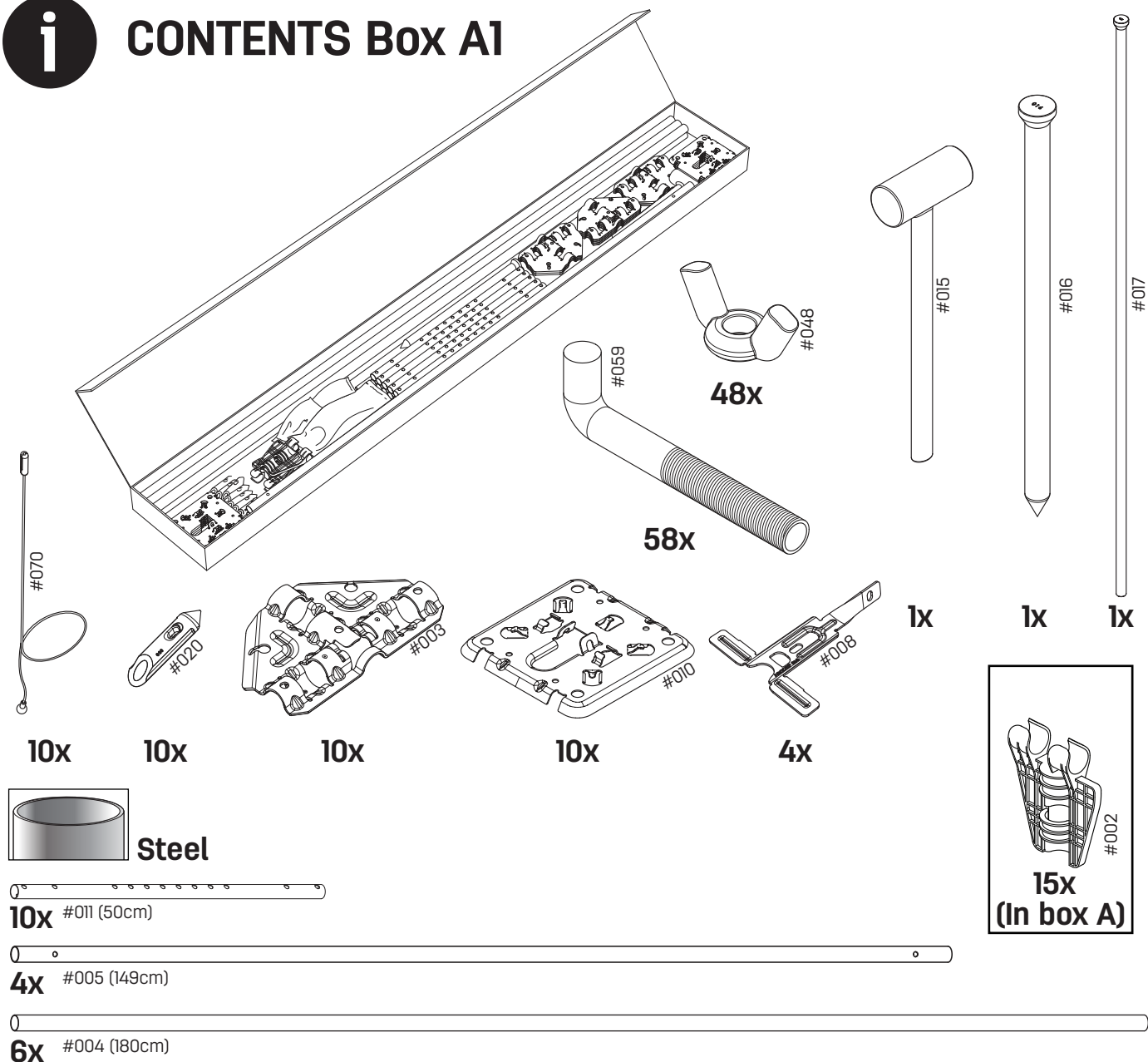
Manual de Montaje
Manuel de Montage
Montageanleitung
Manuale di Montaggio



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CONTENTS Box A1



Legend

1 2

Main steps of assembly

1 2 3 4

Sequence of assembly

Insertion path

2x
#004

Number of parts in step or total
Part ID number

X2

Number of repetitions



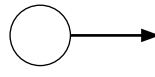
Movement direction



Active part



Information



Detail placement



Rotate part or move to opposite part
of shelter

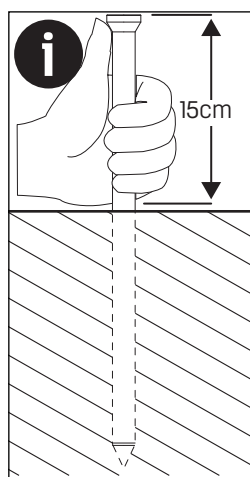
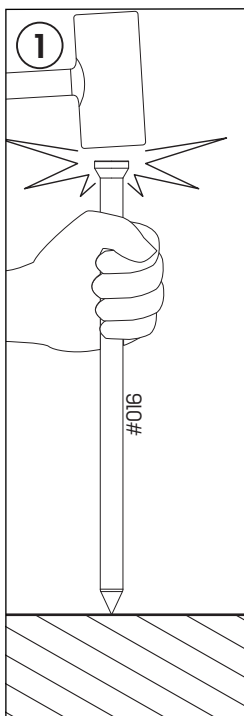
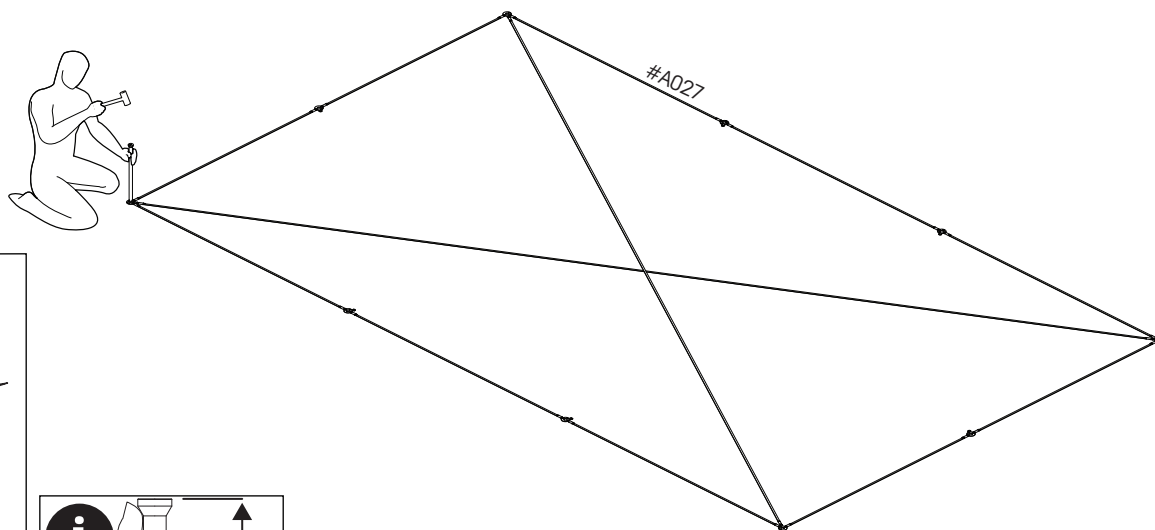
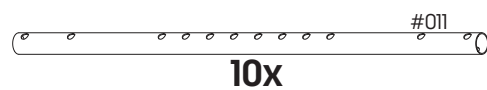
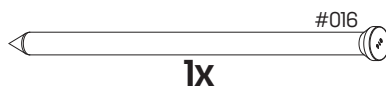
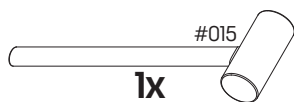


Important detail or position

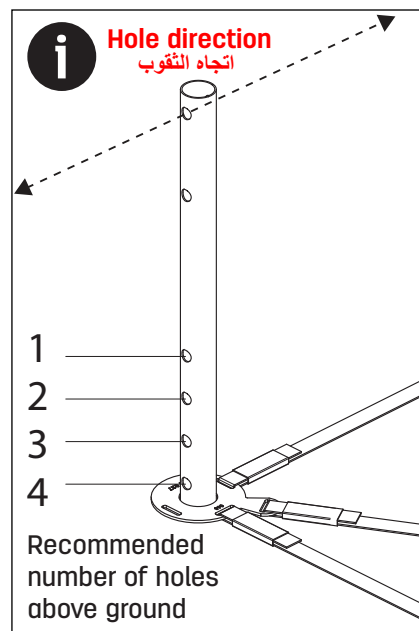
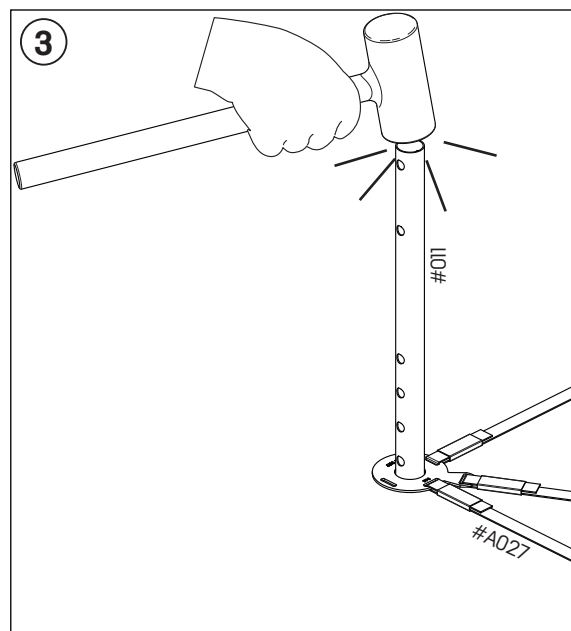
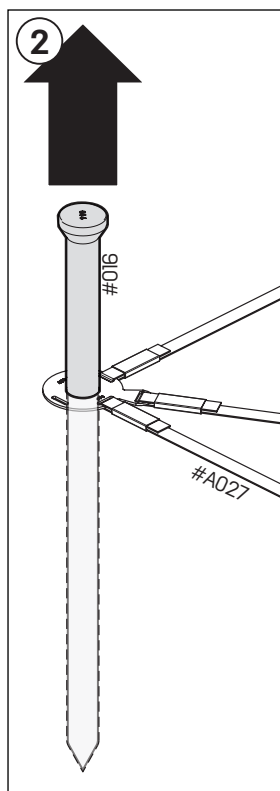
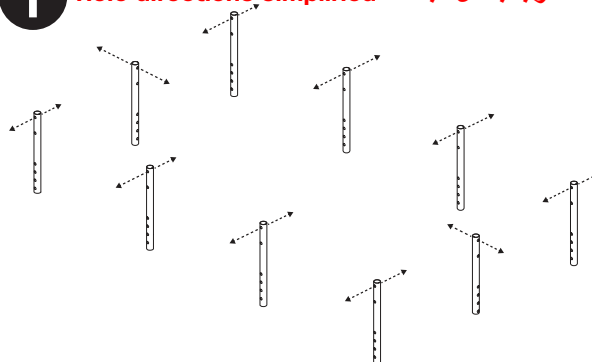
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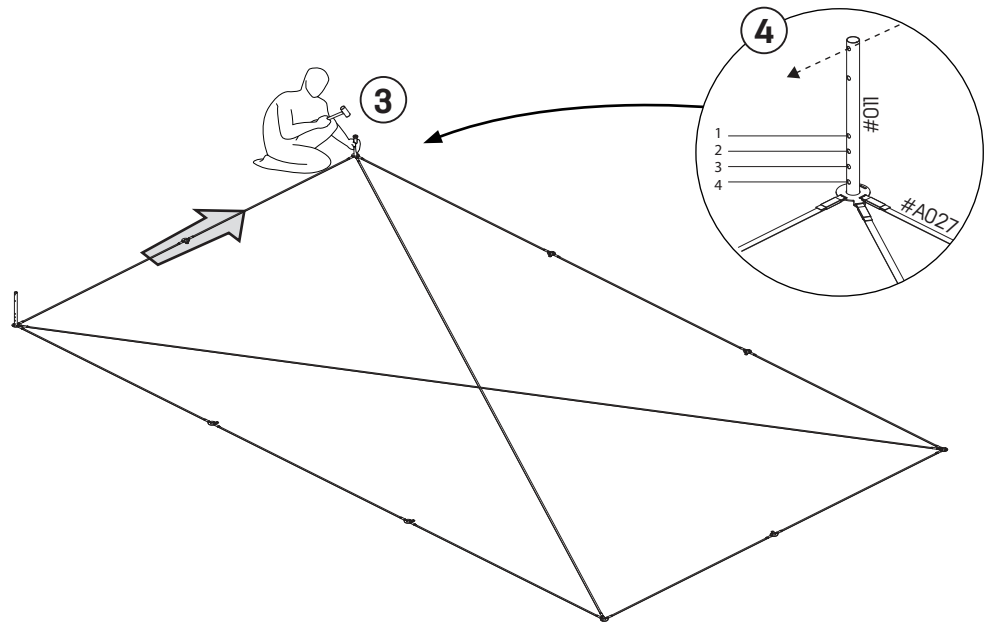
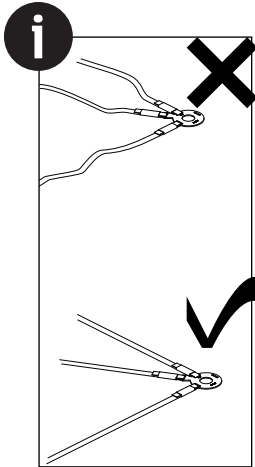
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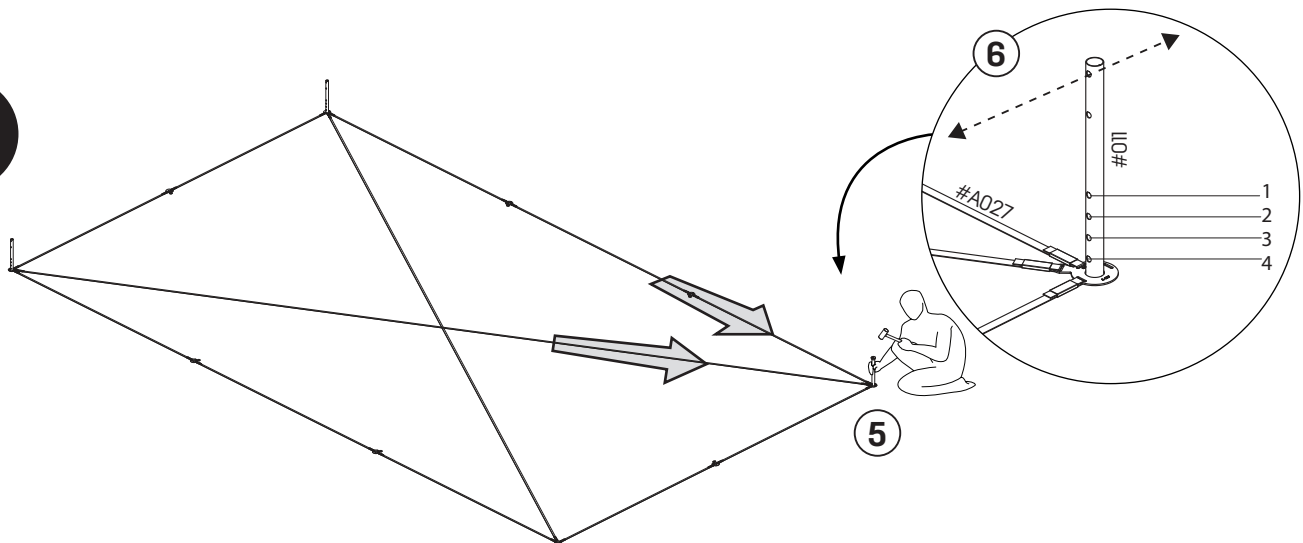
i Hole directions simplified اتجاه الثقوب بشكل مبسط



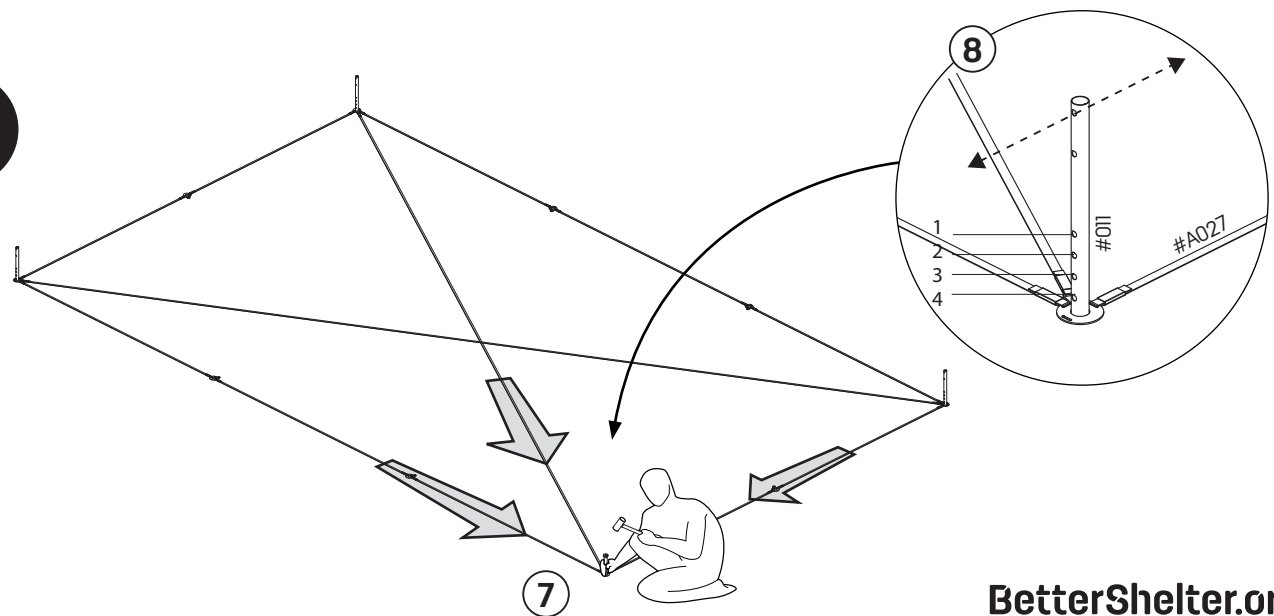
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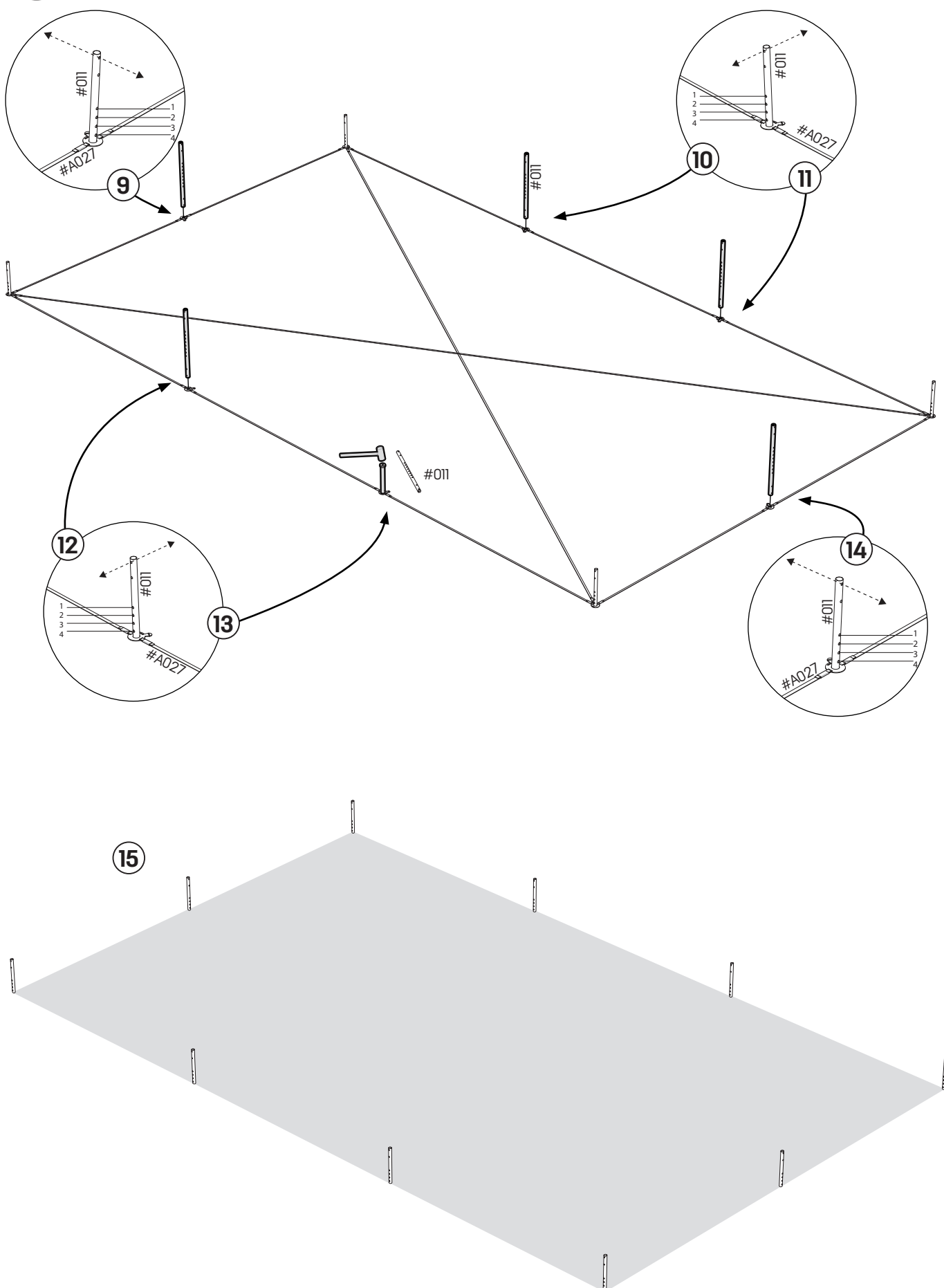
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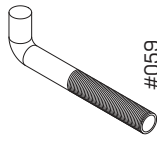
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Repeat Step 5

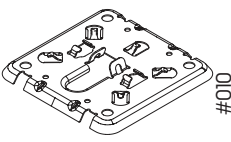
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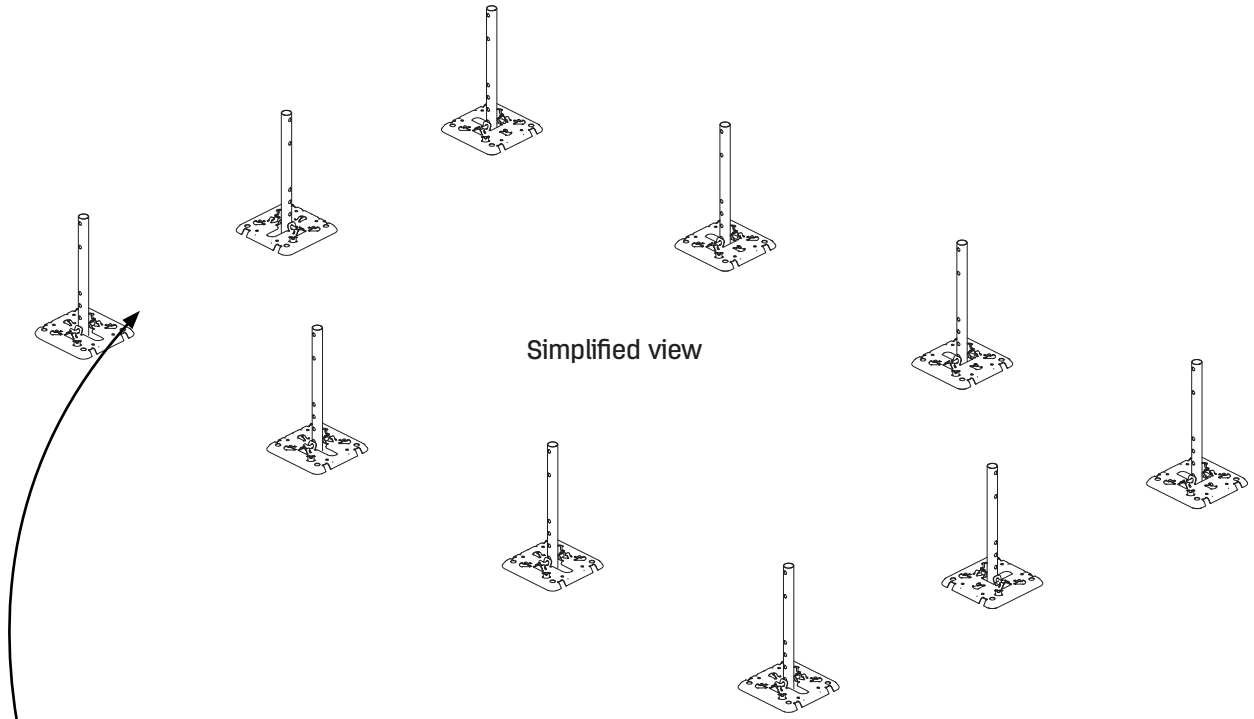


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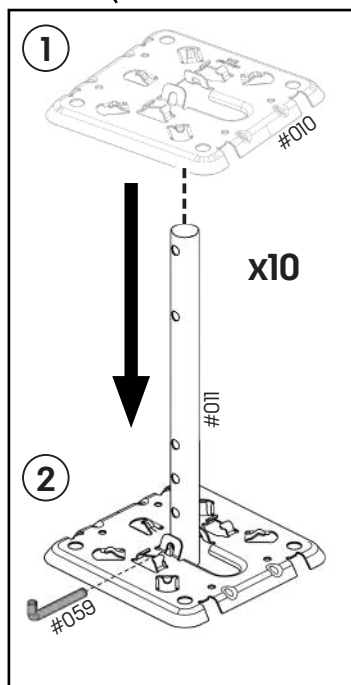
10x

10x

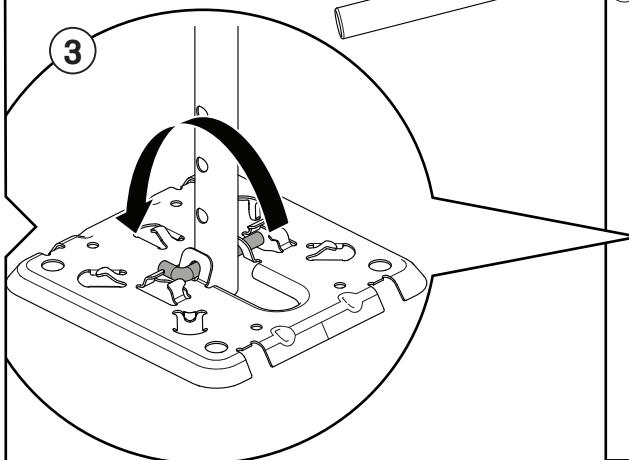


Simplified view

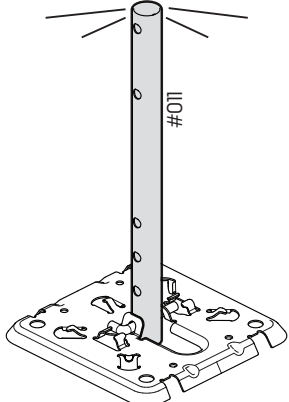
تأكد من أن البراغي تربط
الصفحة الأرضية مع الماسورة الأرضية
مجموعهم 10



Make sure L-bolt
connects ground
plate with ground
pipe. 10 in total



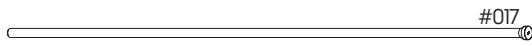
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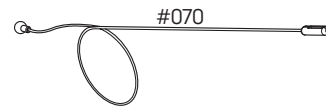
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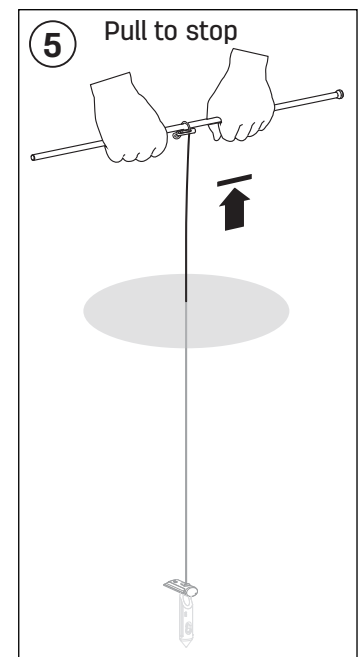
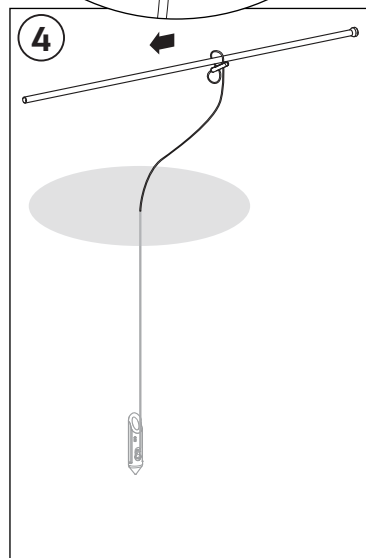
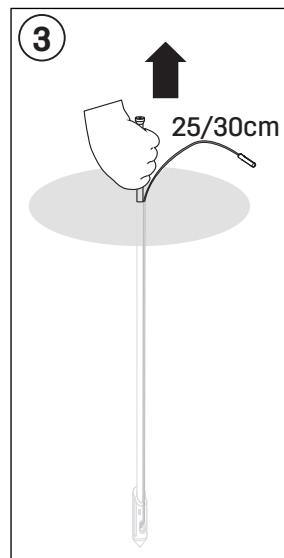
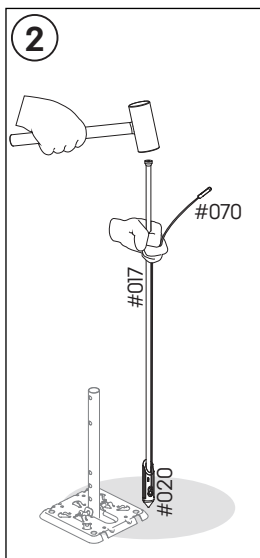
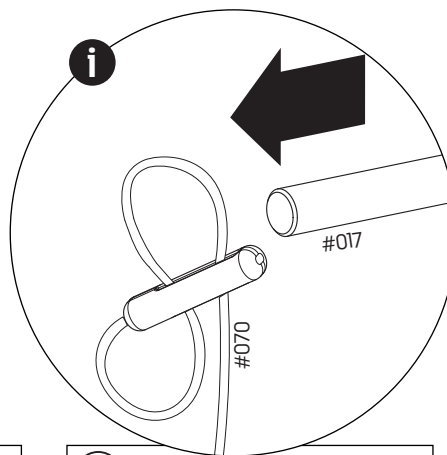
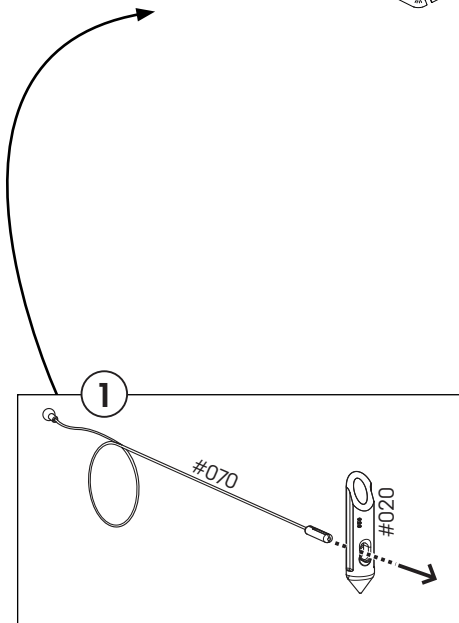
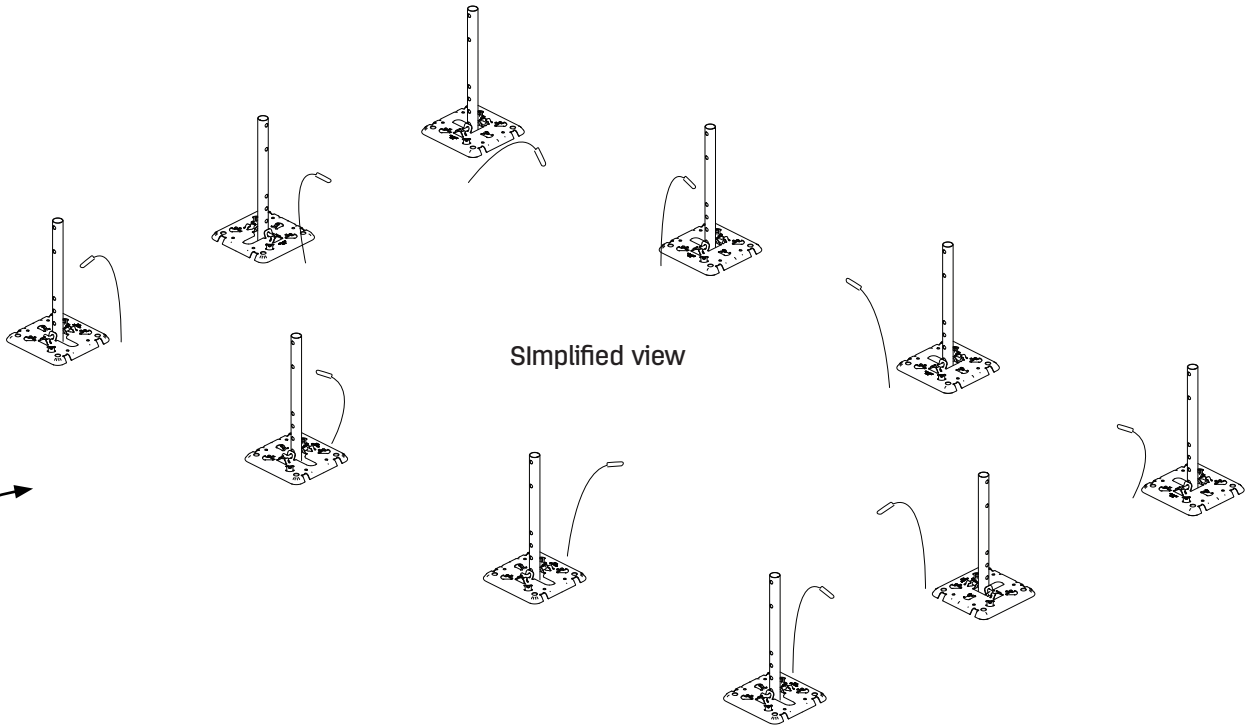
1x



10x

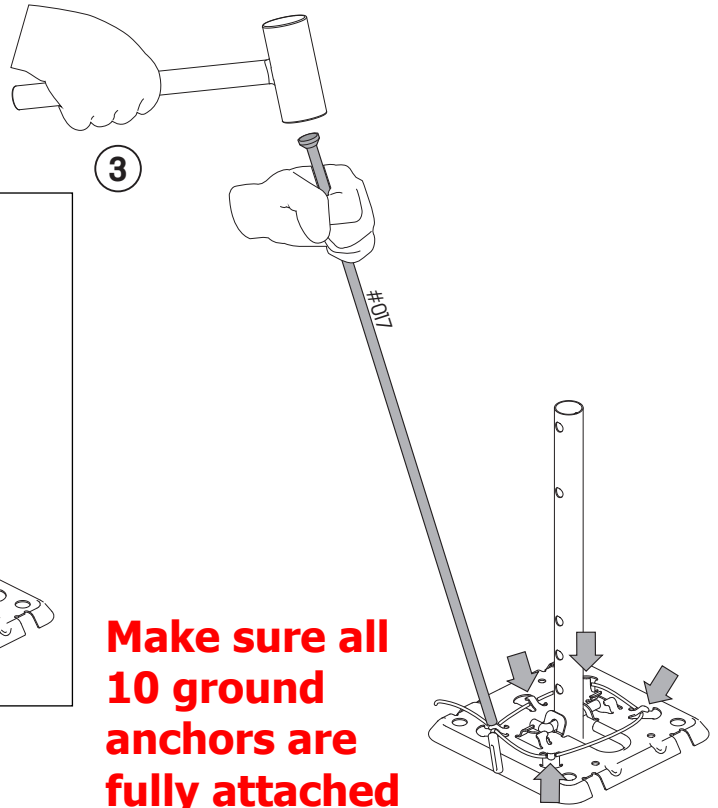
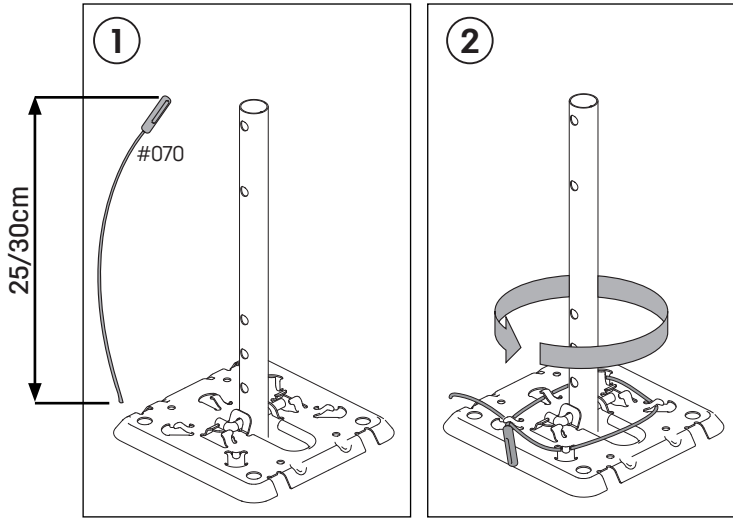


10x



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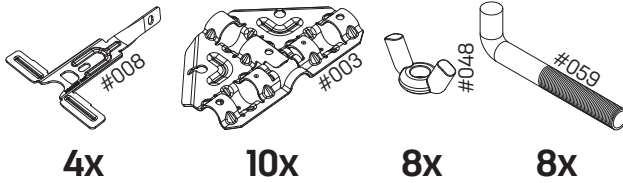
12 x10



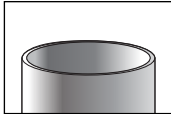
Make sure all 10 ground anchors are fully attached to each ground plate.

تأكد من توصيل جميع المراسي الأرضية العشرة بالكامل بكل صفيحة أرضية

13

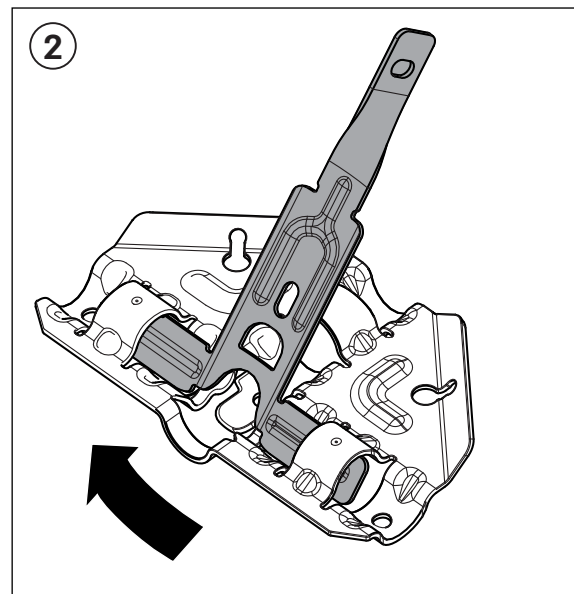
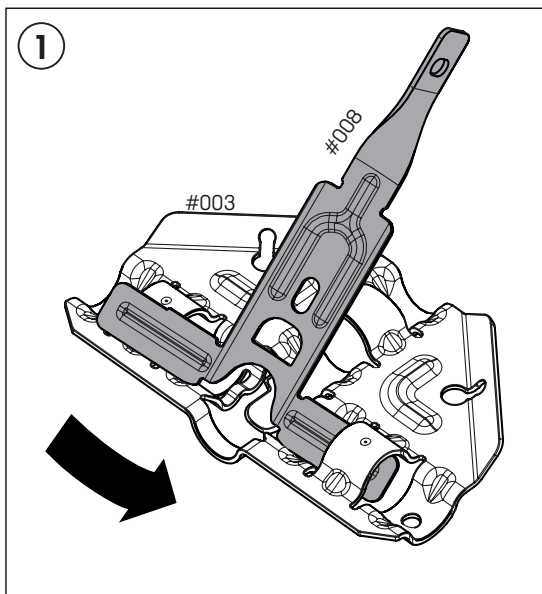


Steel

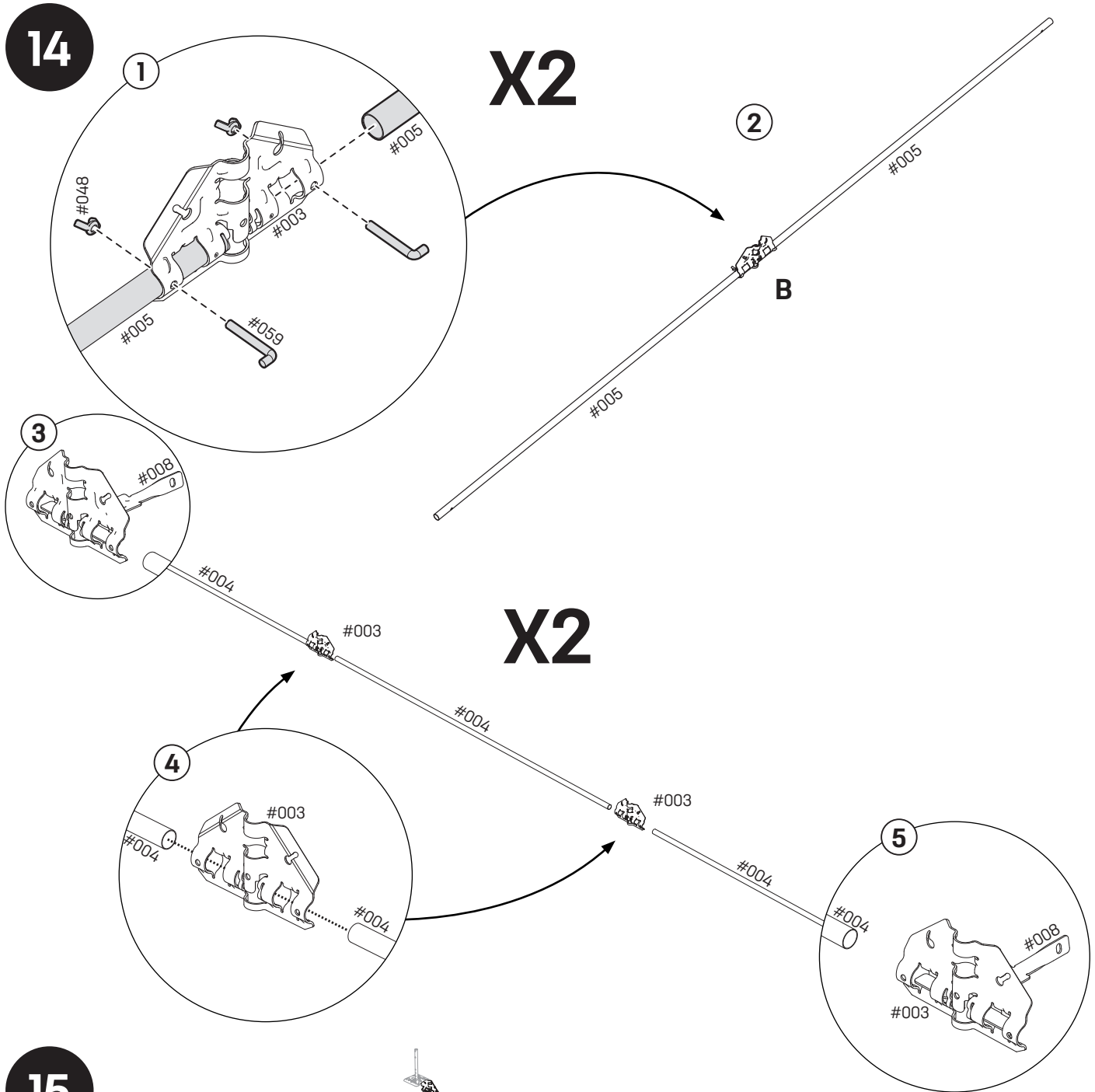


4x #005 (149cm)

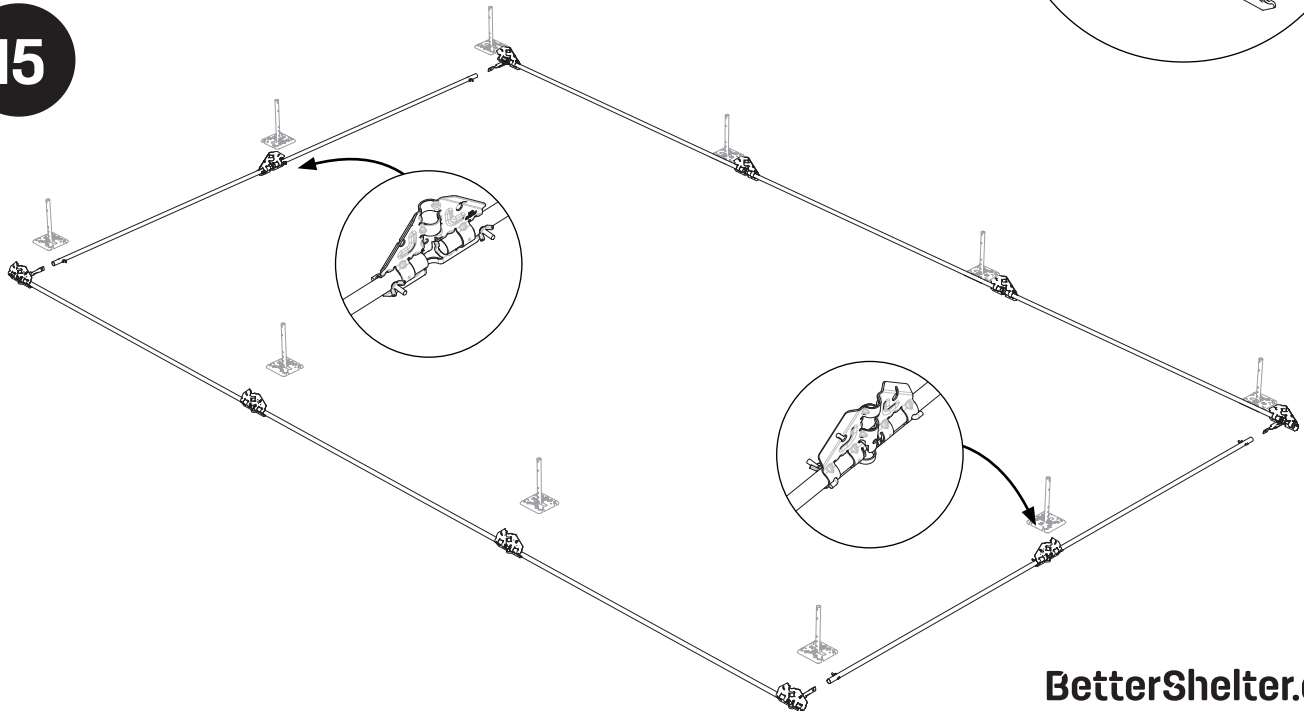
6x #004 (180cm)



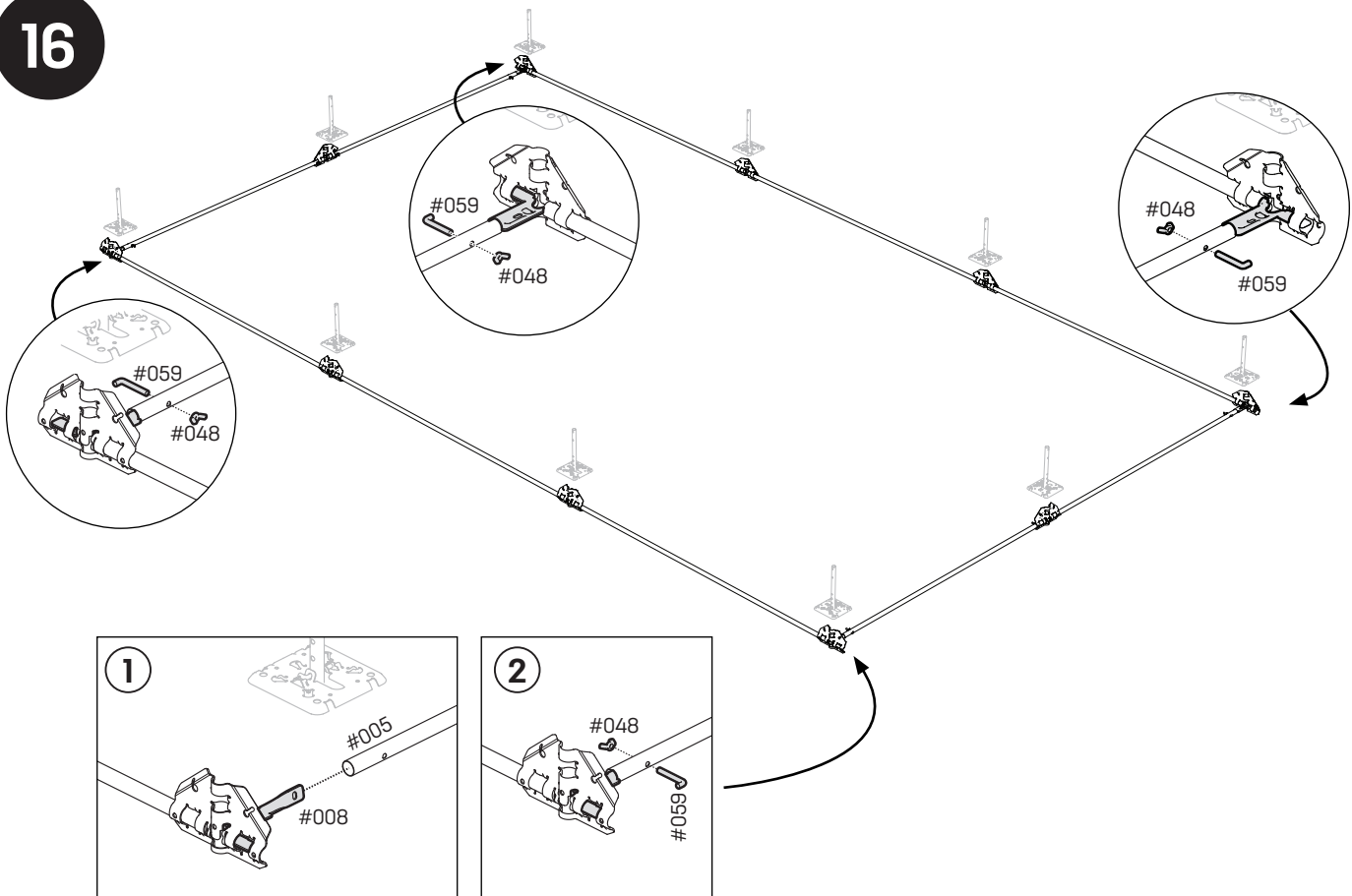
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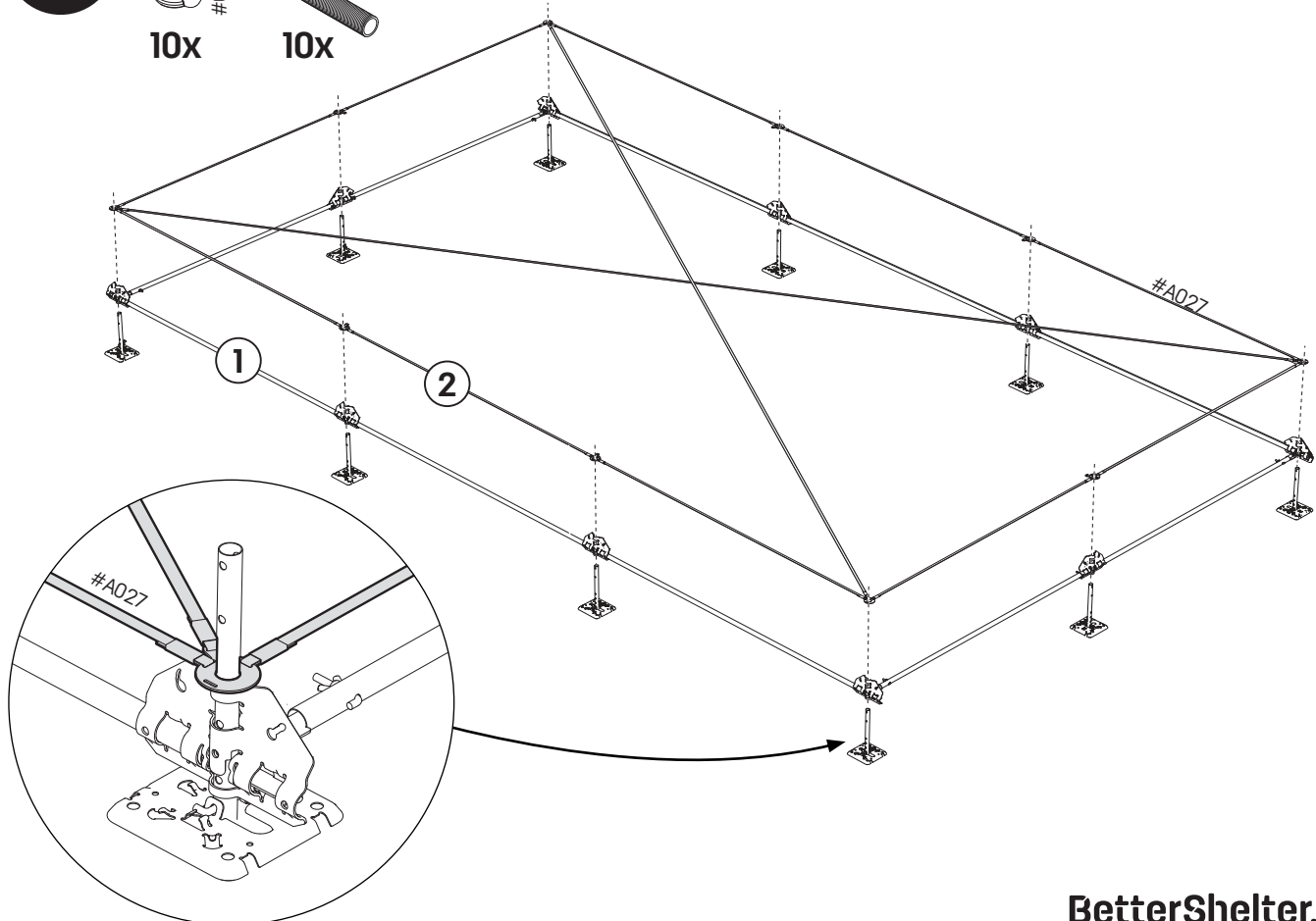
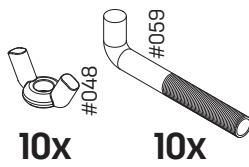
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16

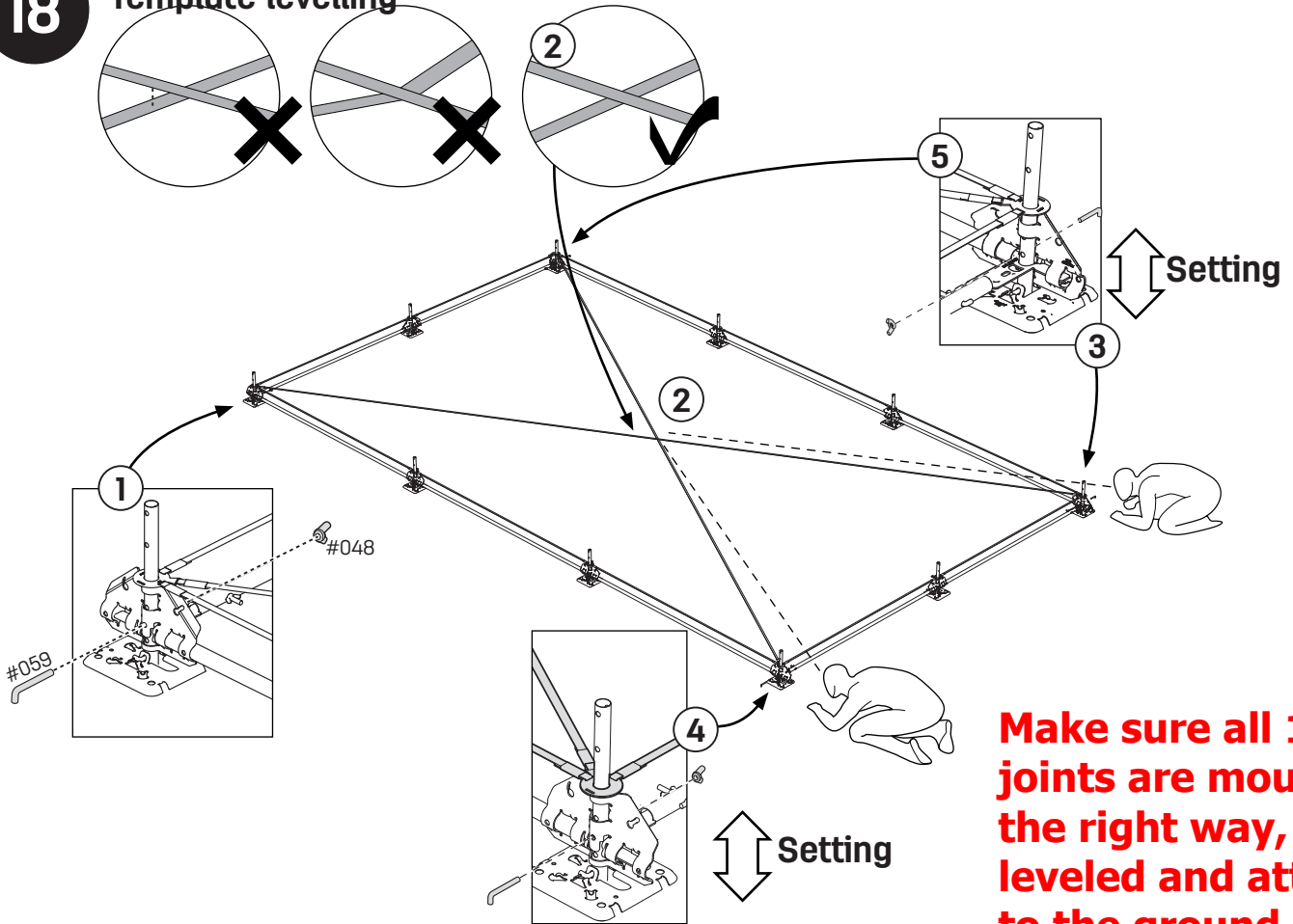


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18

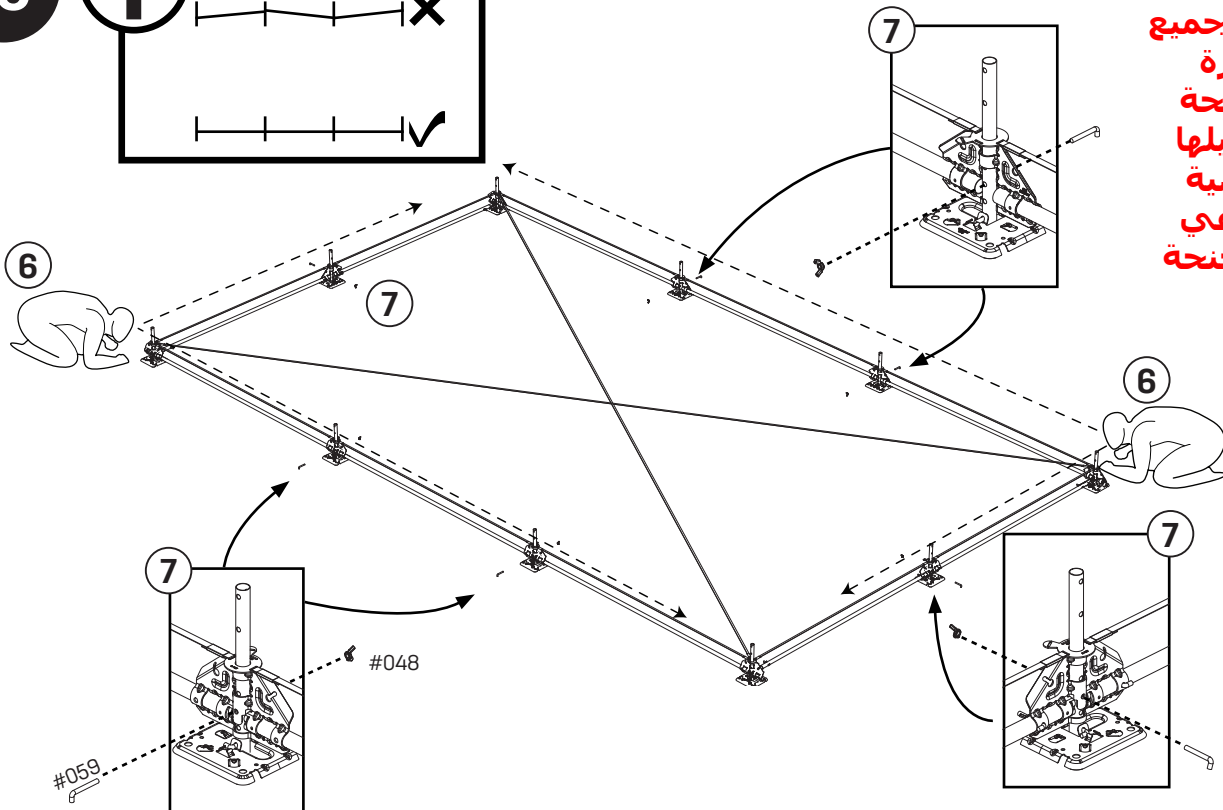
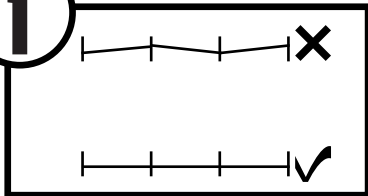
Template levelling



Make sure all 10 joints are mounted the right way, leveled and attached to the ground pipes with L-bolts and wing nuts.

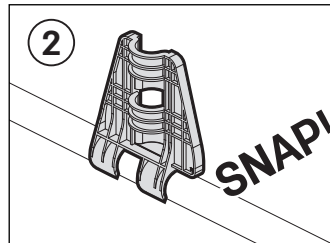
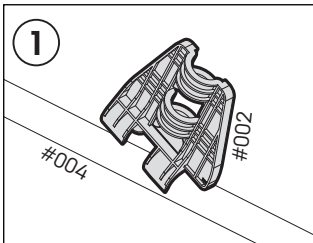
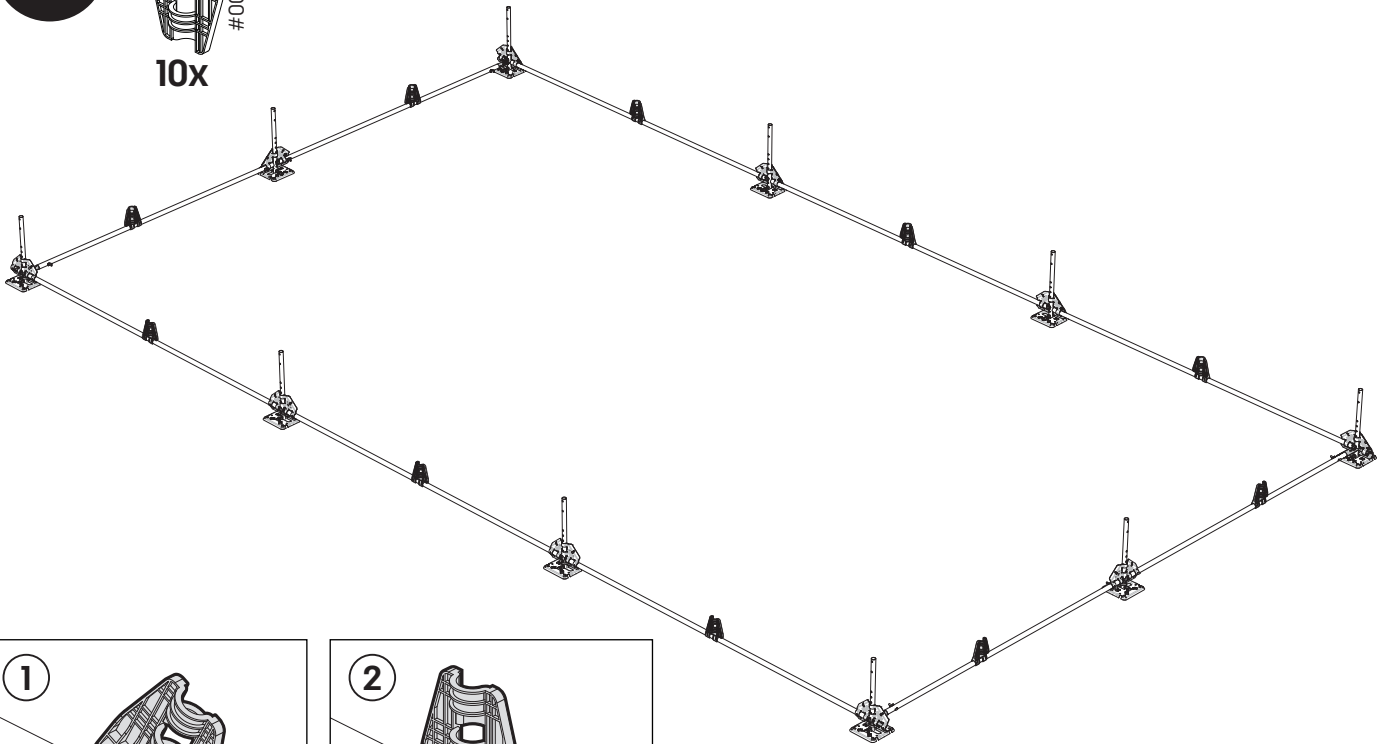
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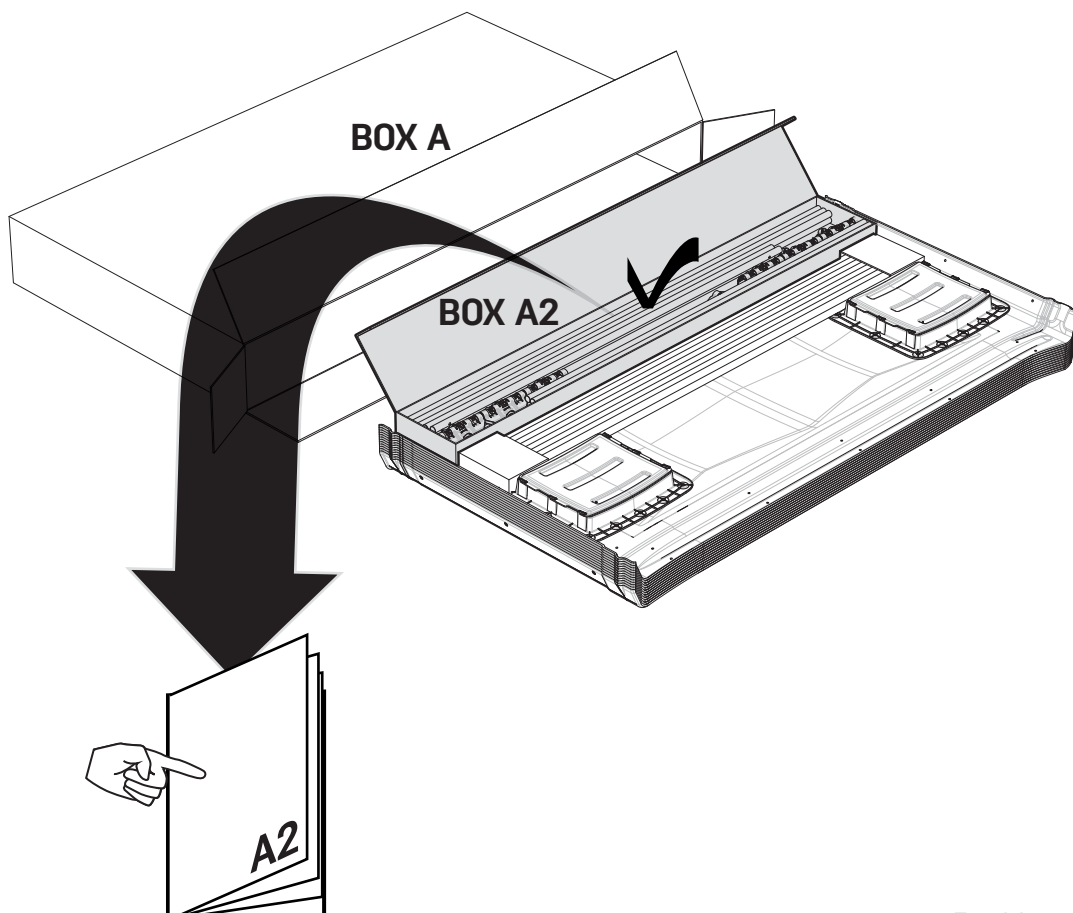


تأكد من تثبيت جميع الوصلات العشرة بالطريقة الصحيحة وتسويتها وتوصيلها بالمواسير الأرضية باستخدام البراغي والصواميل المجنحة

20



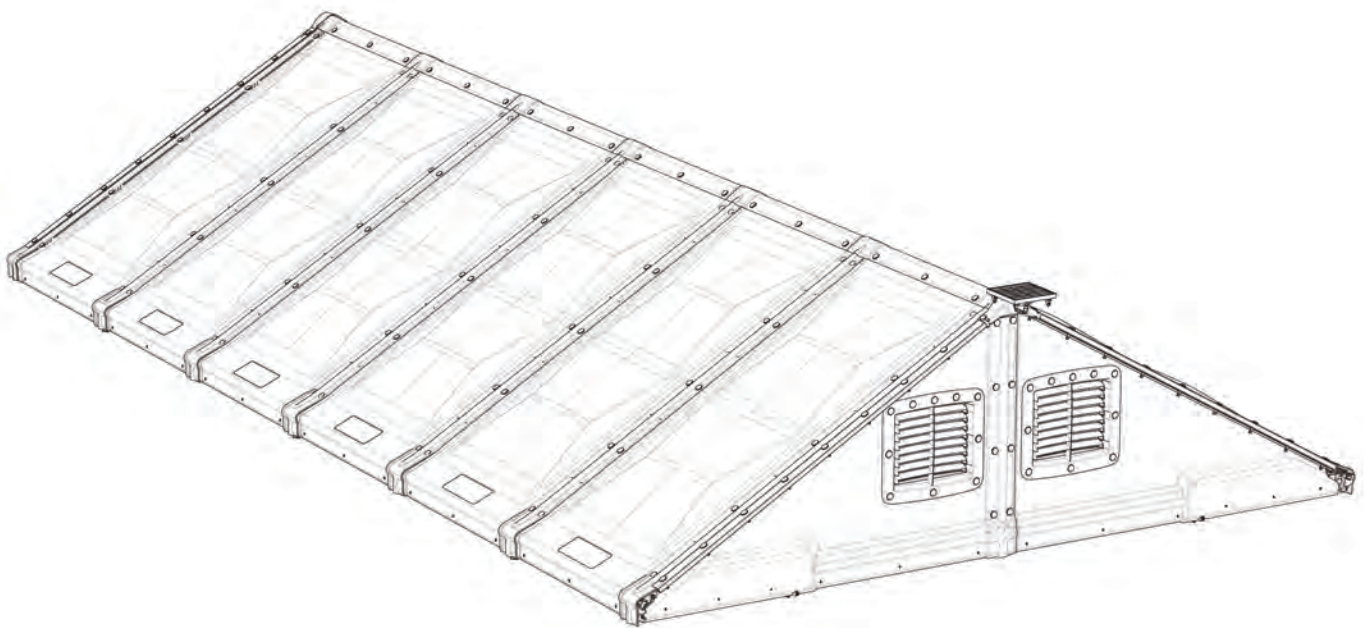
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Better Shelter A2 _ Roof Assembly Manual

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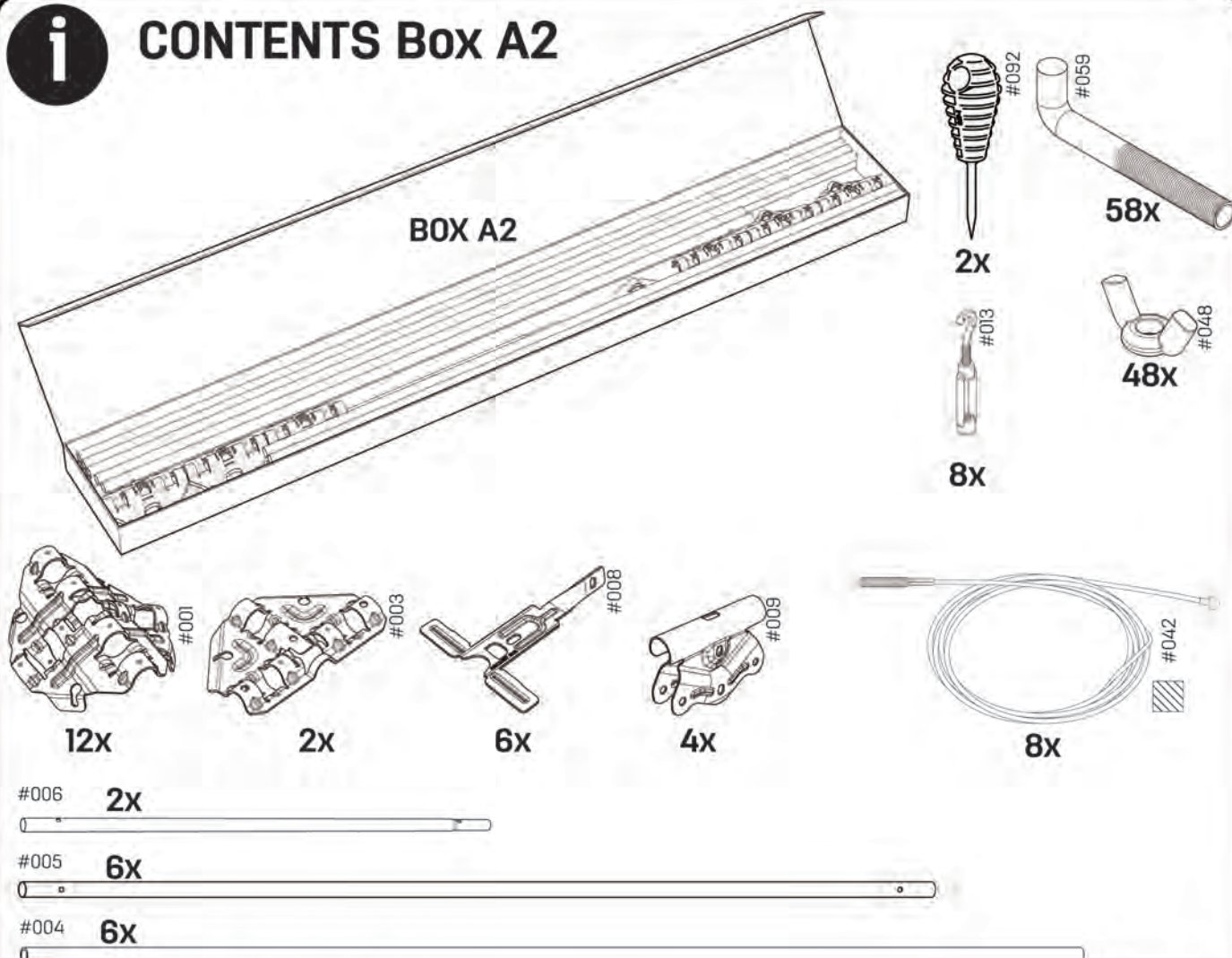
Manual de Montaje
Manuel de Montage
Montageanleitung
Manuale di Montaggio



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CONTENTS Box A2



A Box Main + A1

#004 17x



22x

Legend

1 2

Main steps of assembly

1 2 3 4

Sequence of assembly



Insertion path

2x

Number of parts in step or total

#004

Part ID number

X2

Number of repetitions



Movement direction



Active part



Information



Detail placement

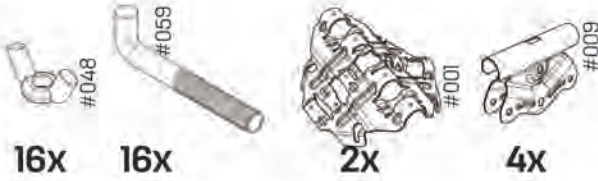


Rotate part or move to opposite part of shelter



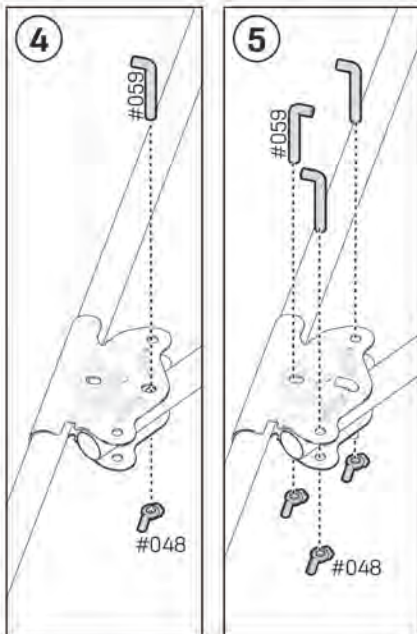
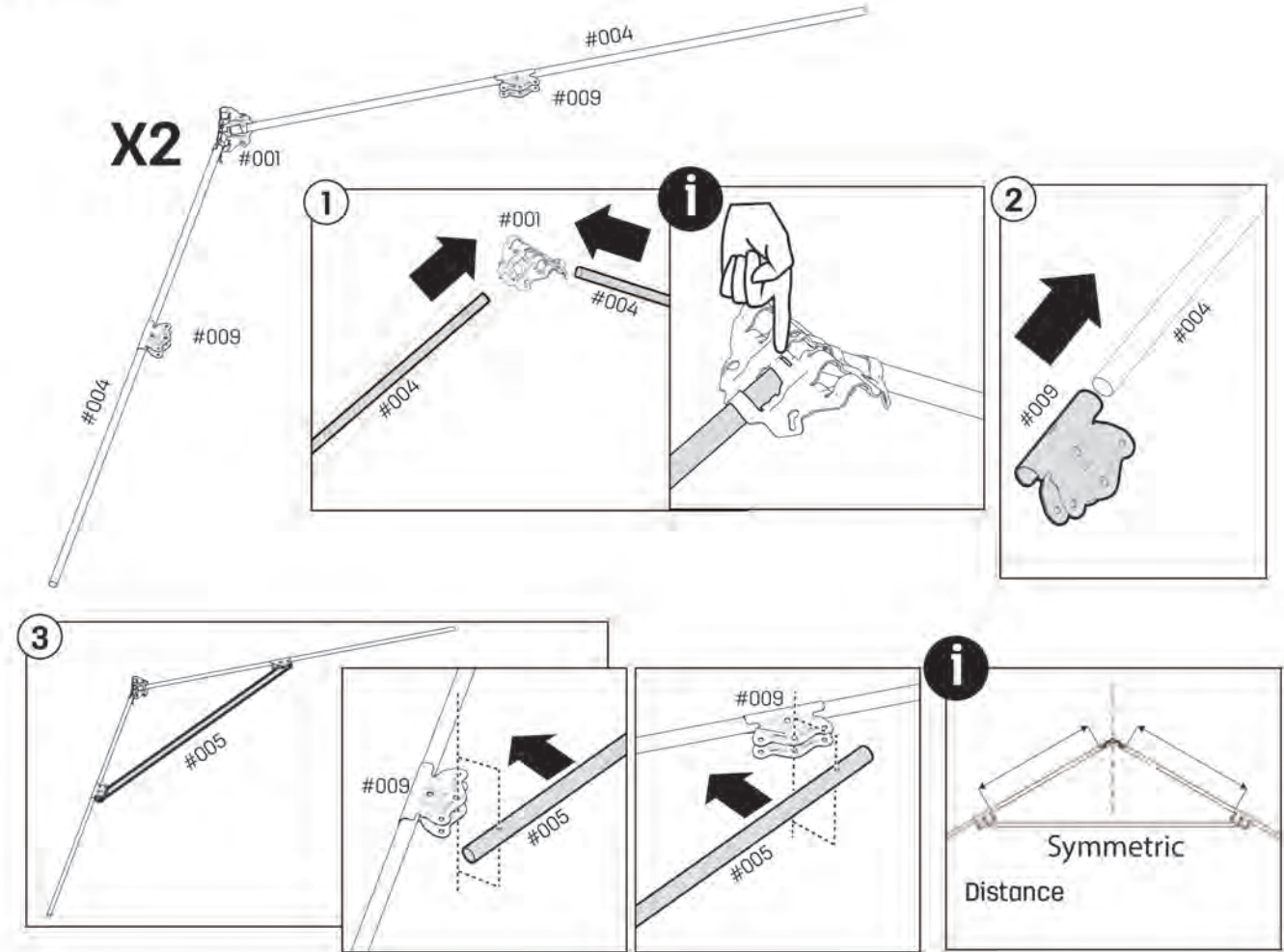
Important detail or position

22

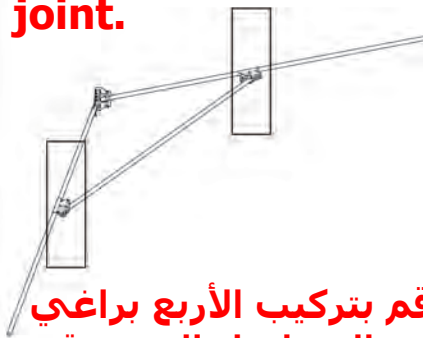


4x #004

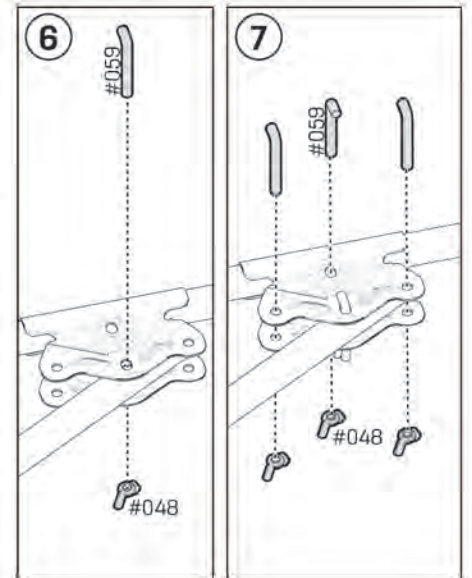
2x #005



**Attach 4 L-bolts
with wing nuts in
each roof truss
joint.**



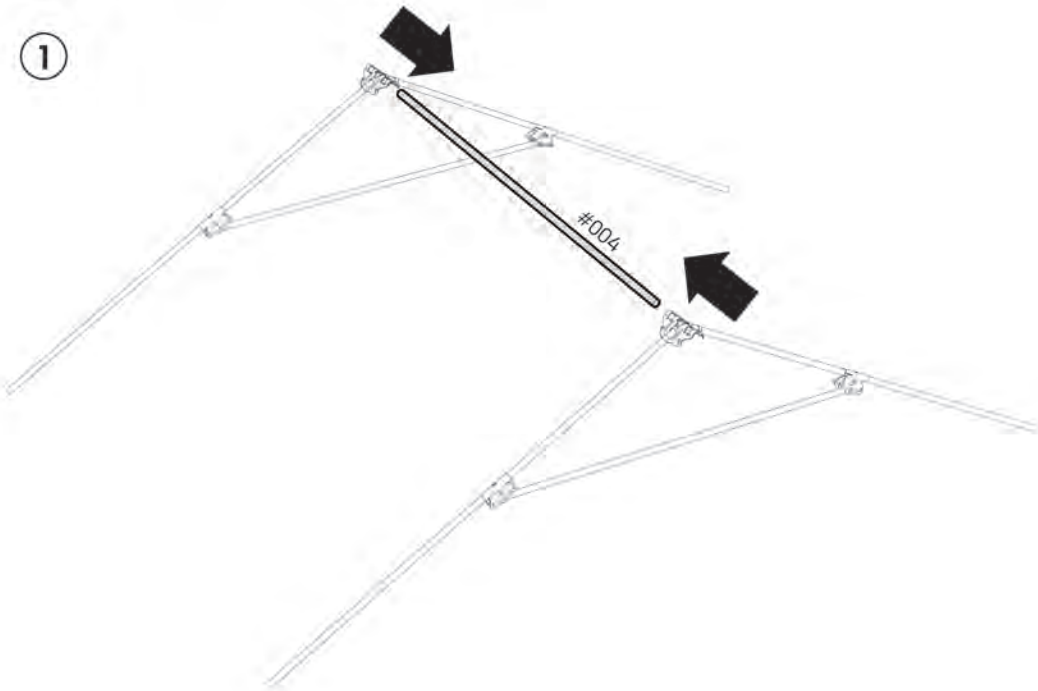
**قم بتركيب الأربع براغي
مع الصواميل المجنحة
في كل مفاصل جمالون
السقف**



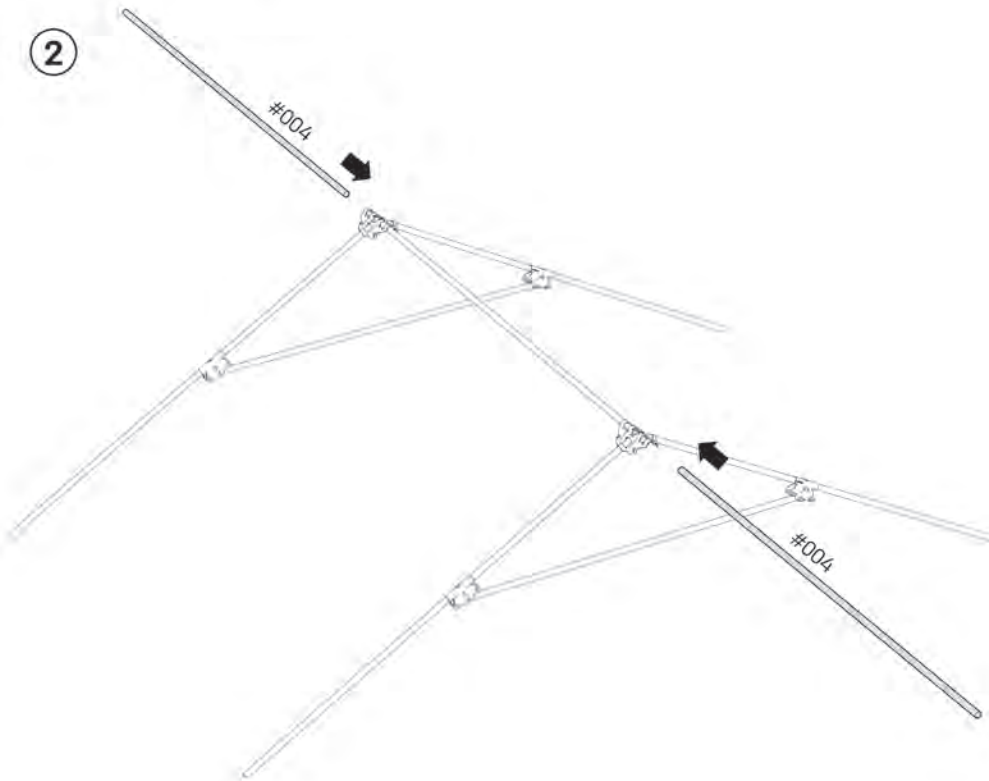
23

3x #004

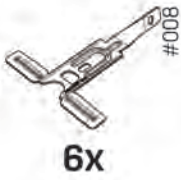
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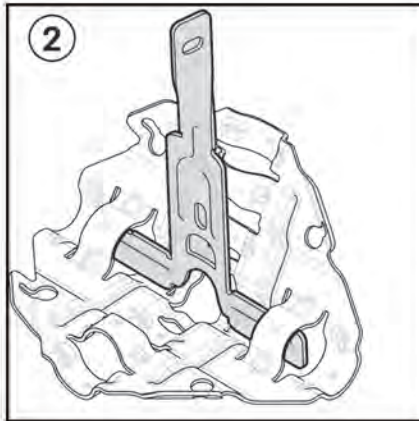
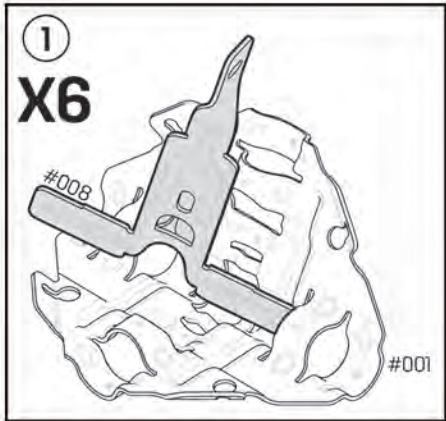
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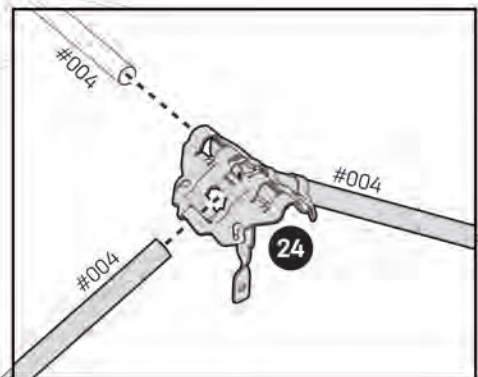
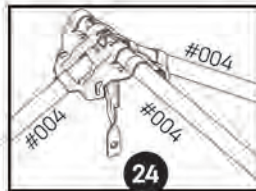
24



4X #004



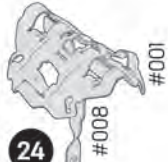
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26



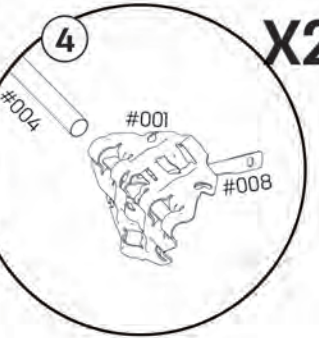
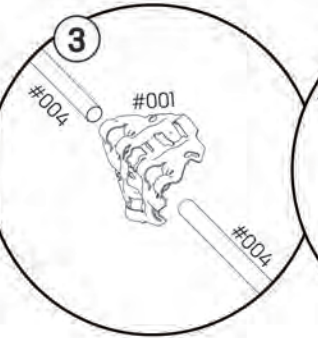
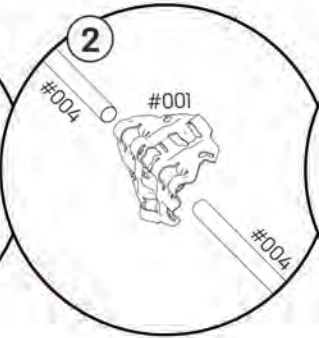
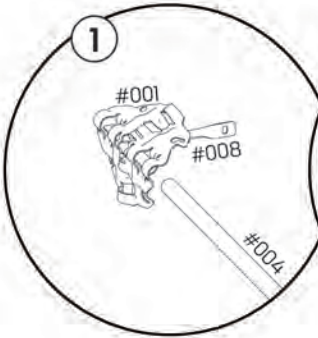
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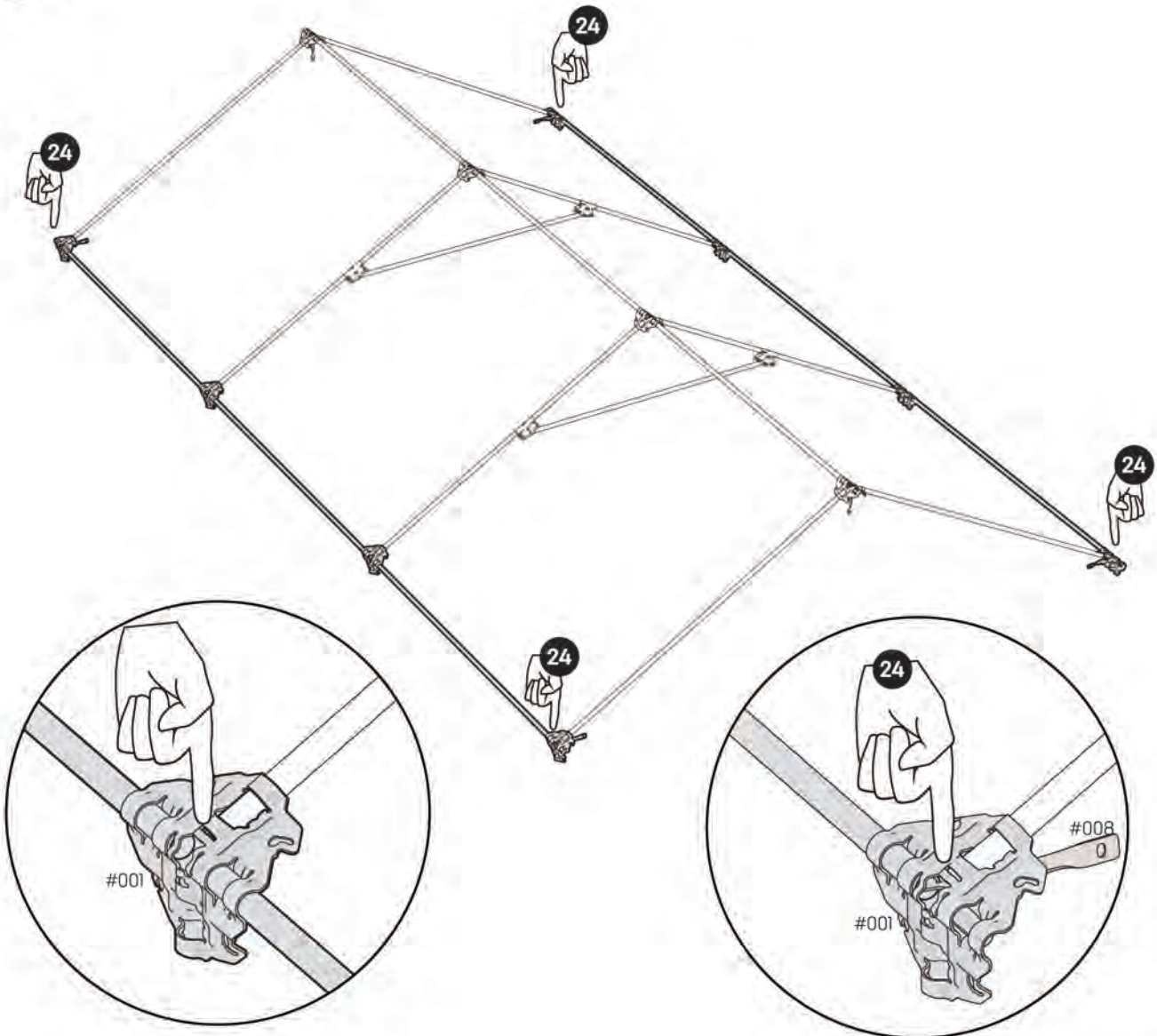
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6x #004

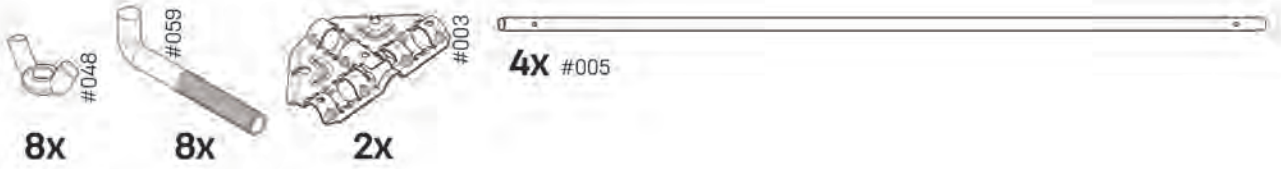


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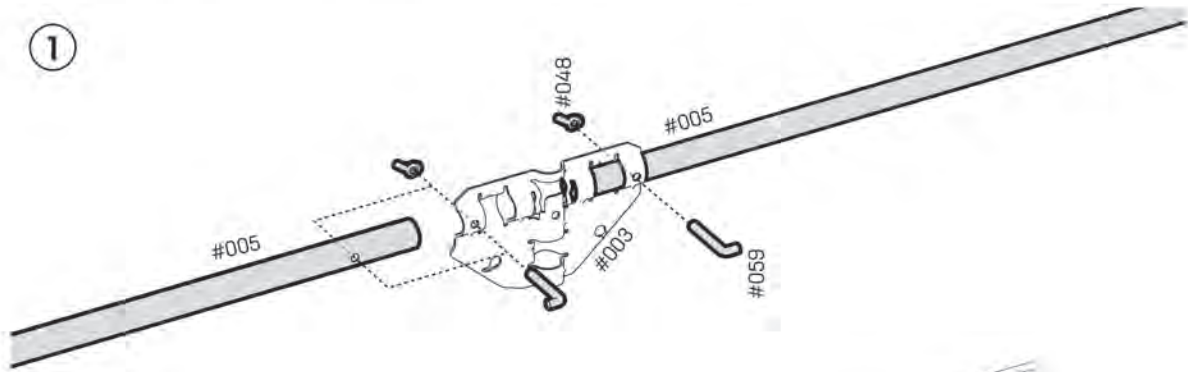
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28



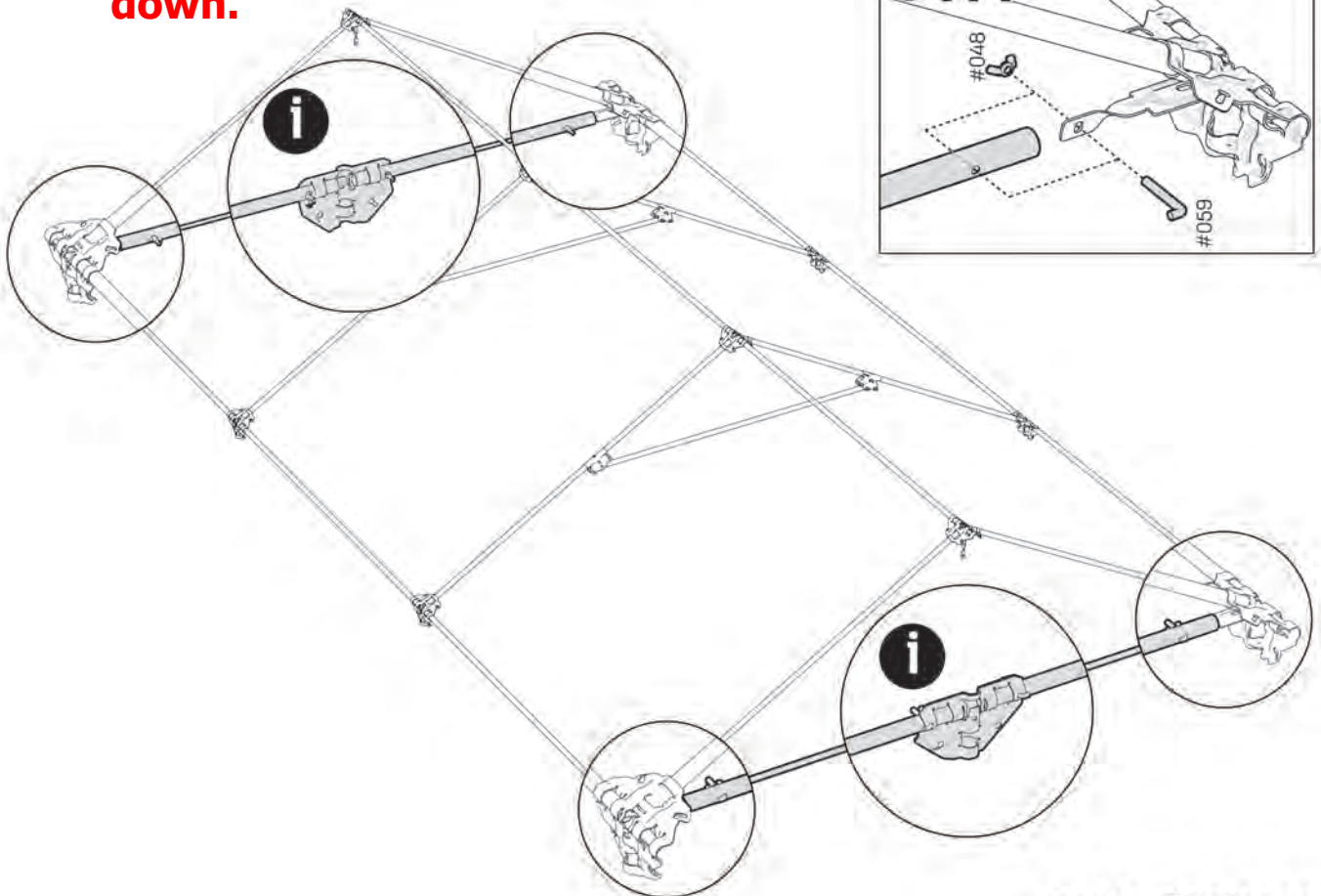
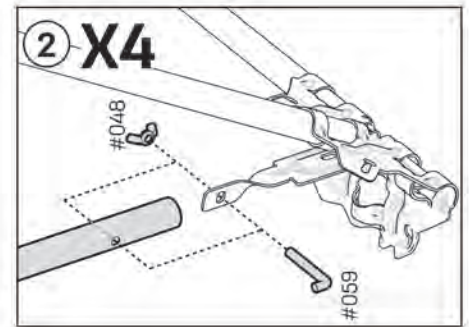
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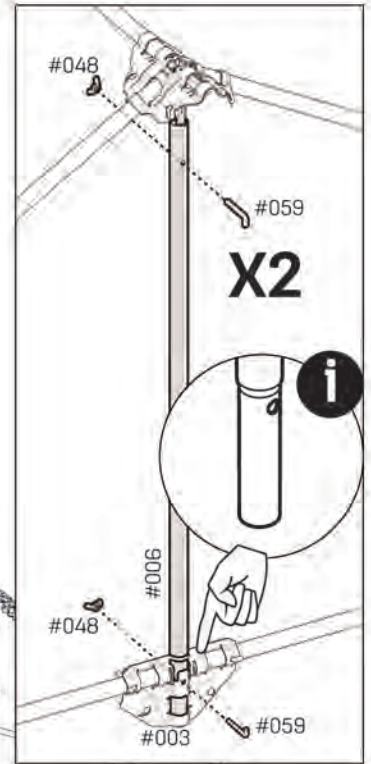
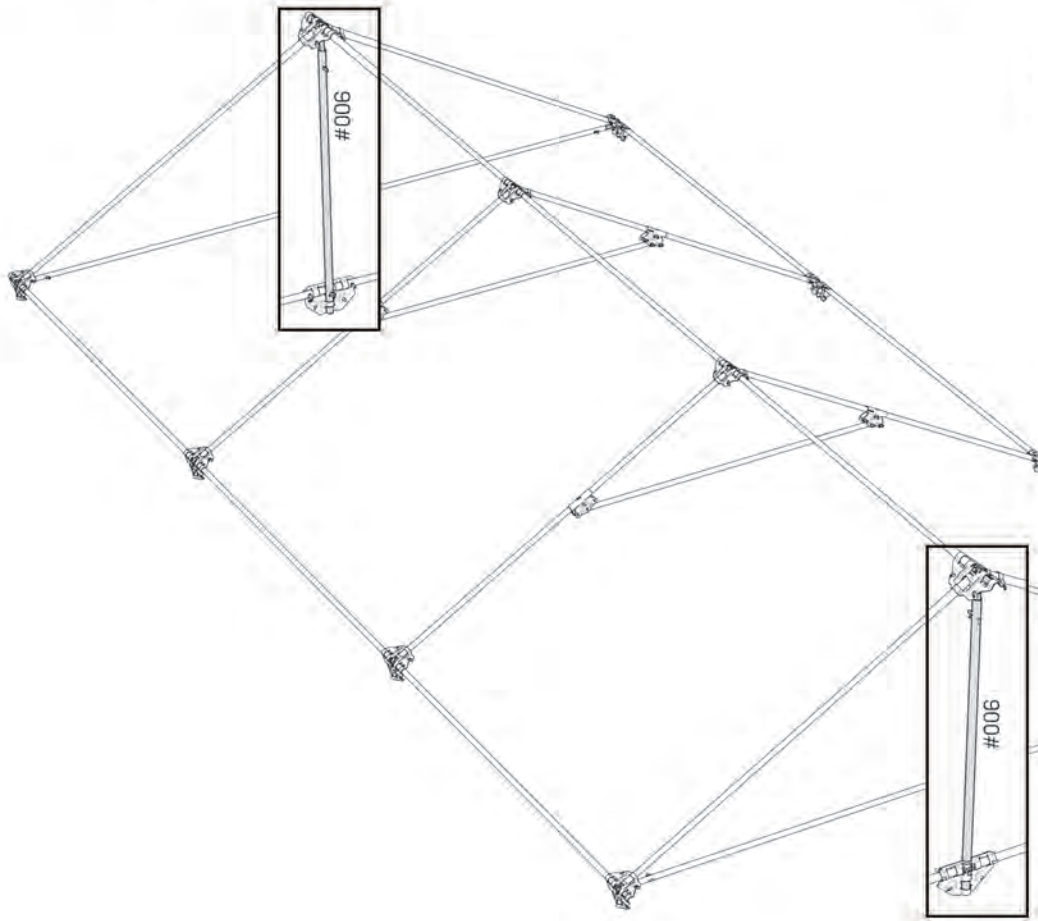
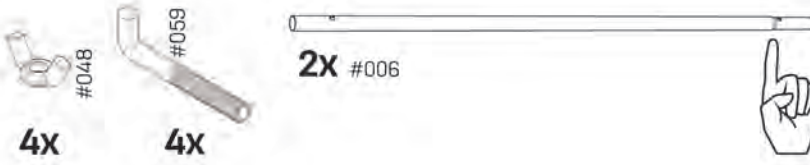
X2

تأكد من أن المفصل المركزي
مركب بالاتجاه الصحيح. الجانب
المدبب لأسفل

Make sure the centre joint is
mounted with the correct
orientation. Pointy side
down.



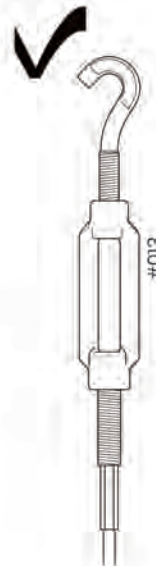
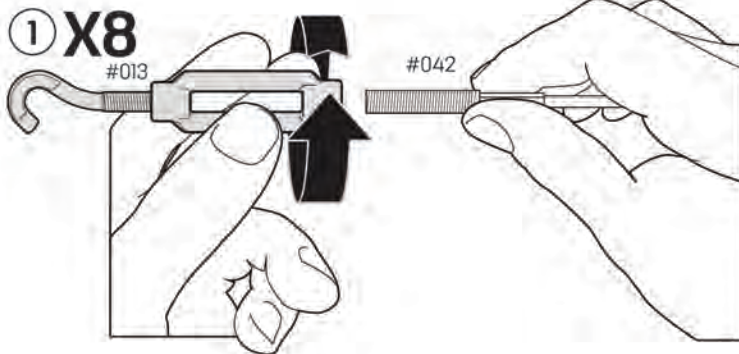
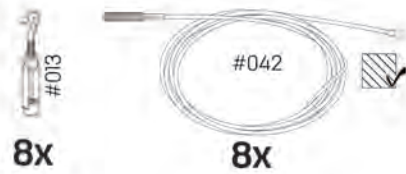
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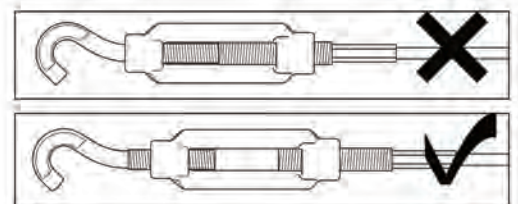
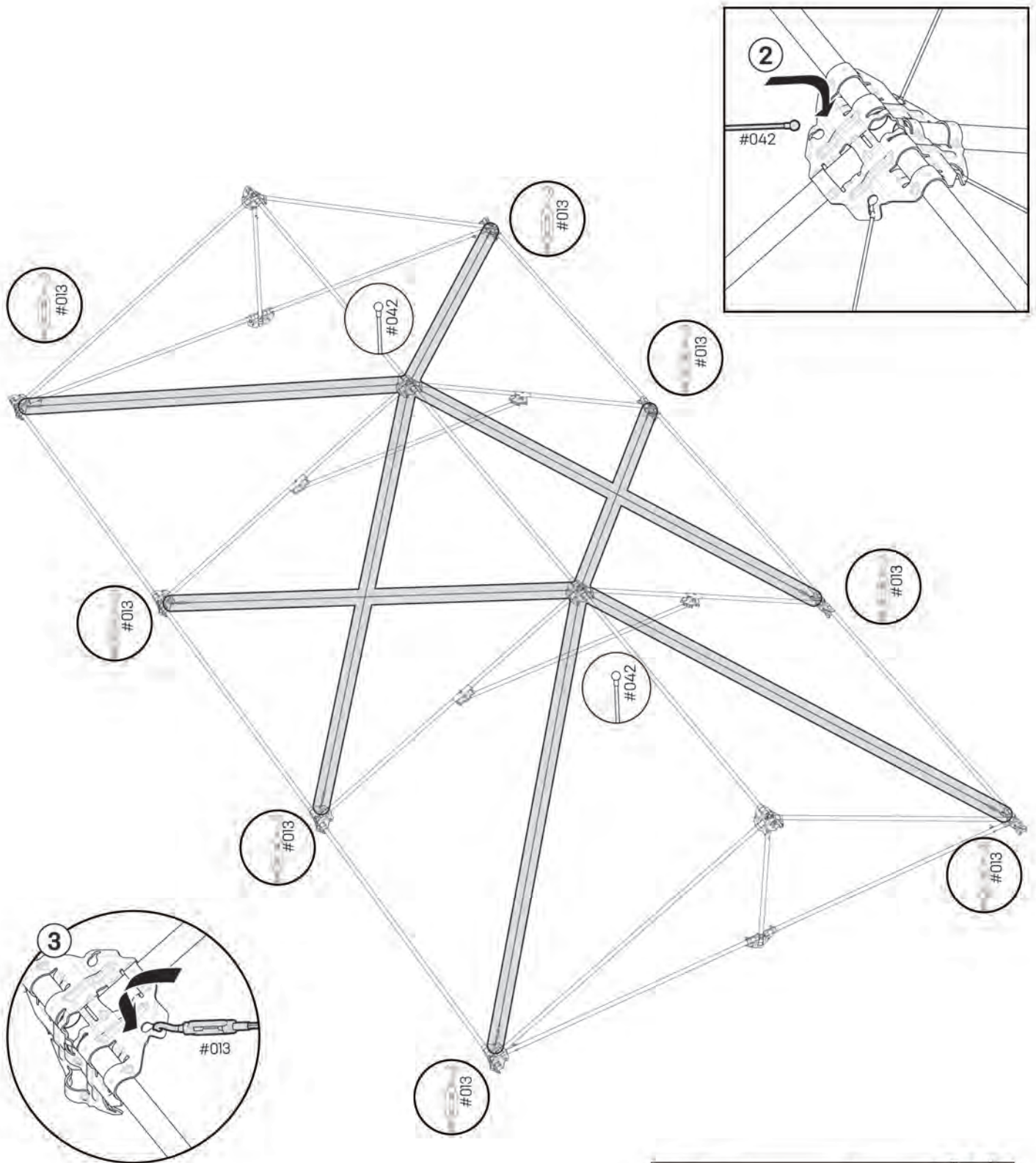


Make sure L-bolts are inserted with wing nuts.

تأكد من إدخال البراغي مع الصواميل المجنحة

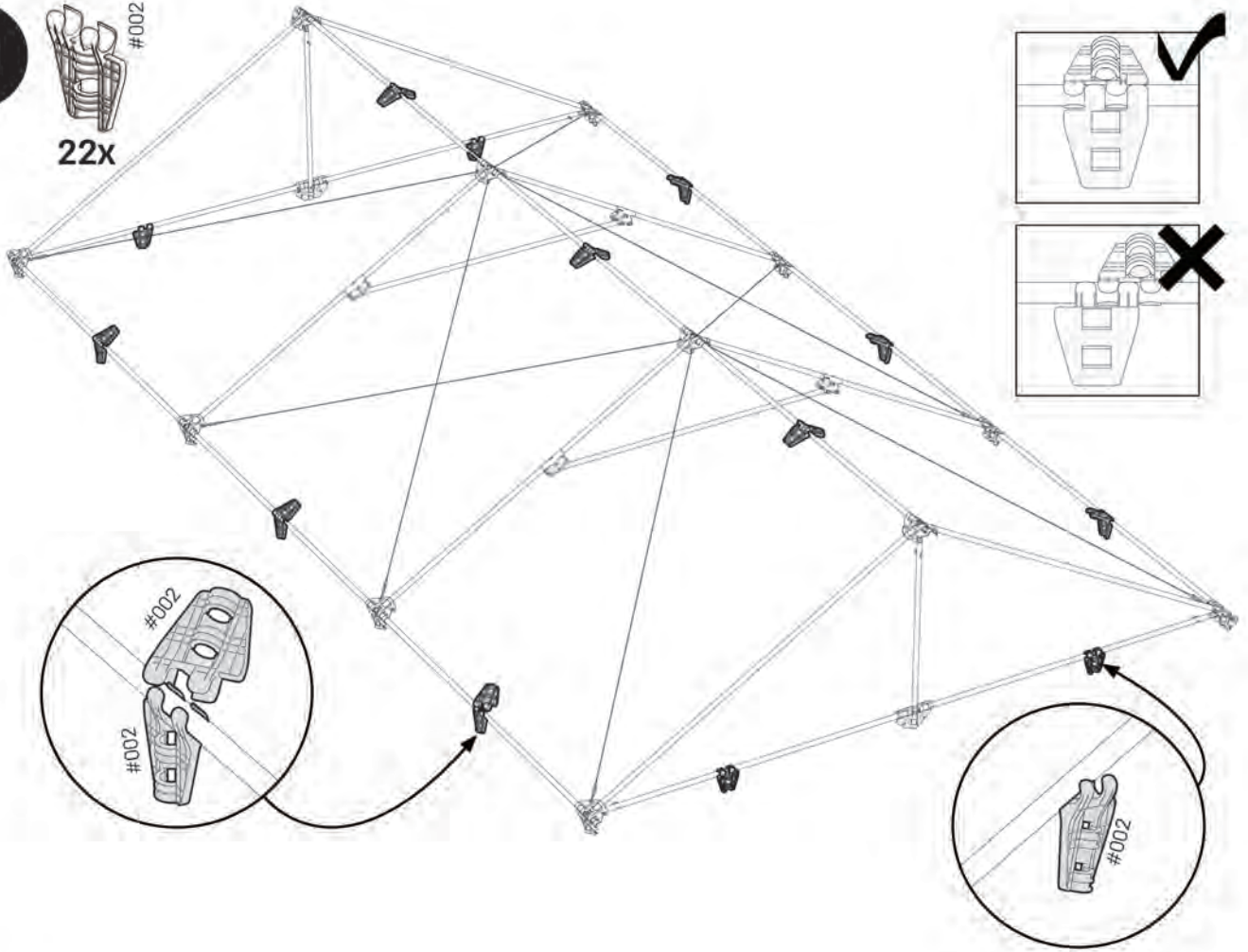
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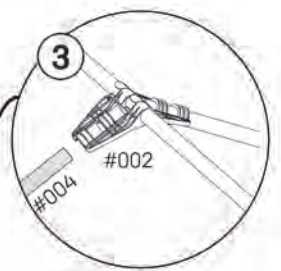
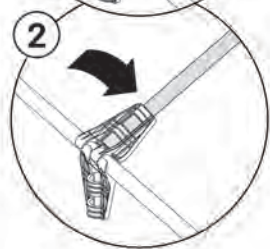
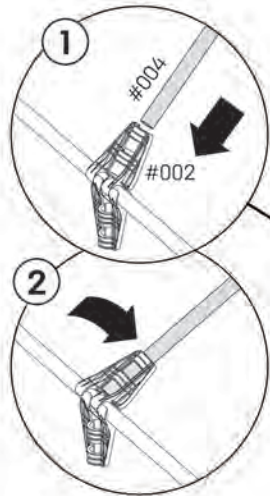
i Do not tension fully, just reduce slack evenly across structure.

31



32

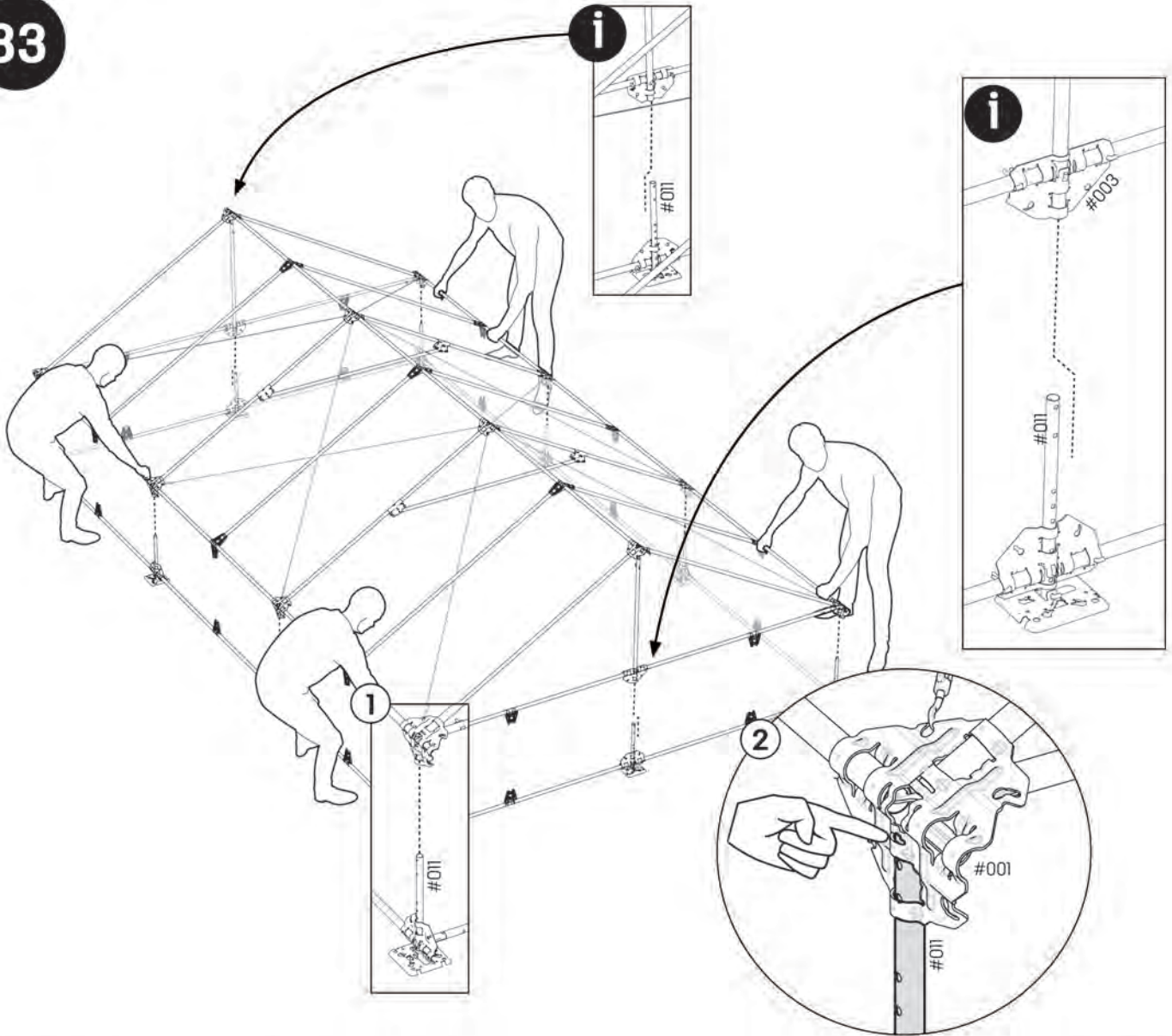
6x #004



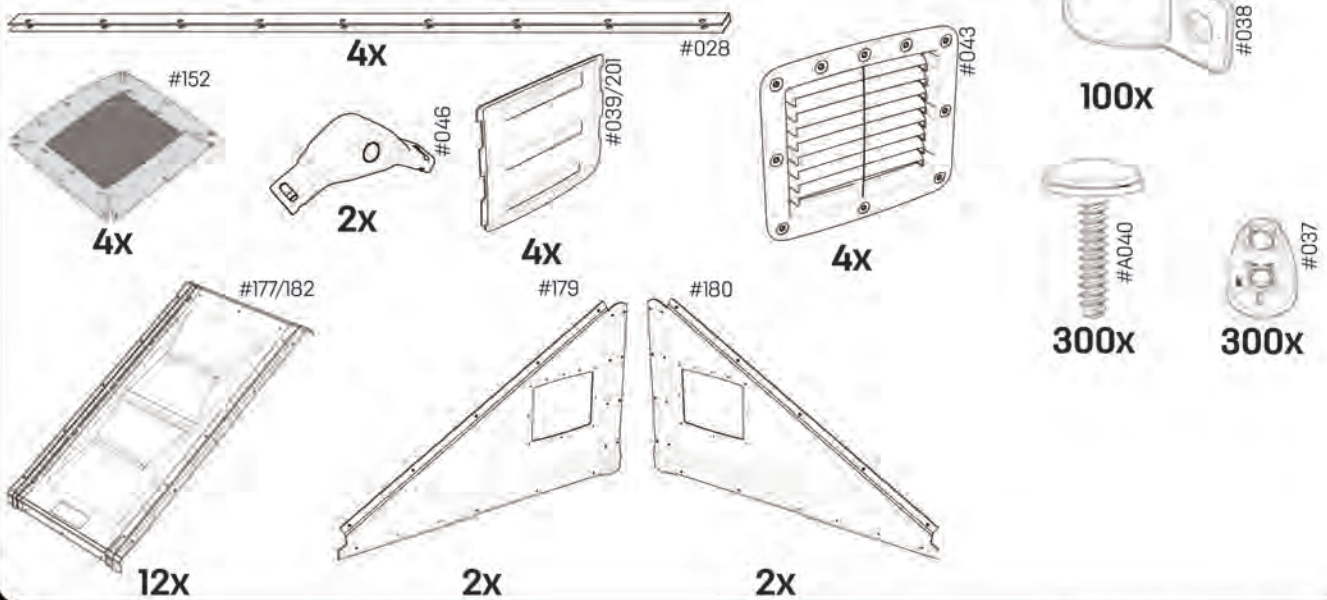
Pipes should be over the wires.

يجب أن تكون المواسير فوق الأسلاك

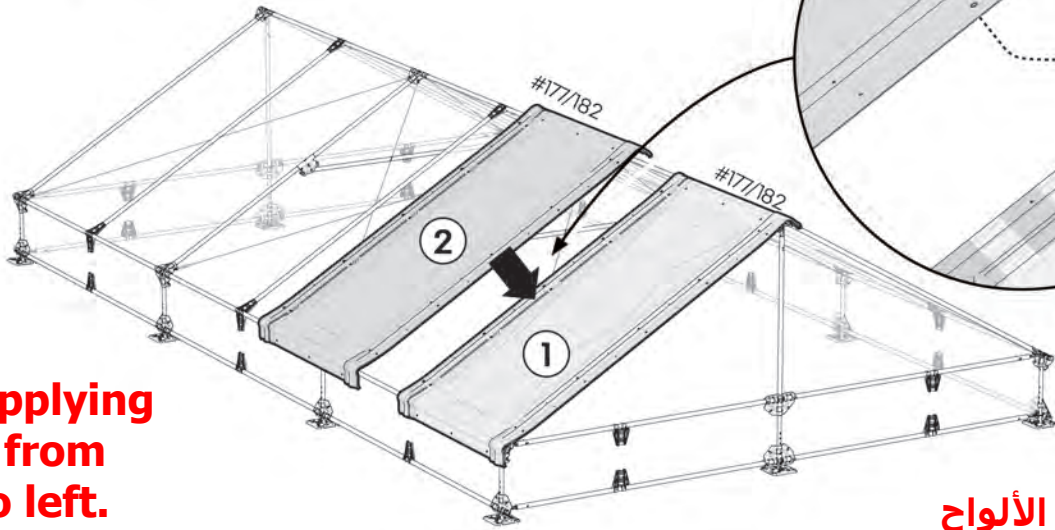
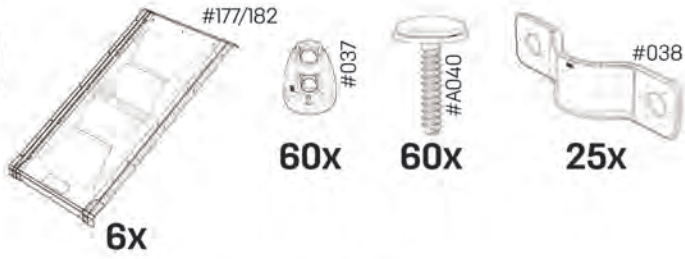
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CONTENTS Box A

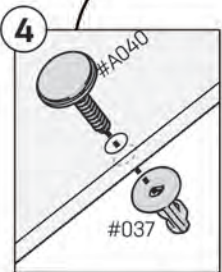
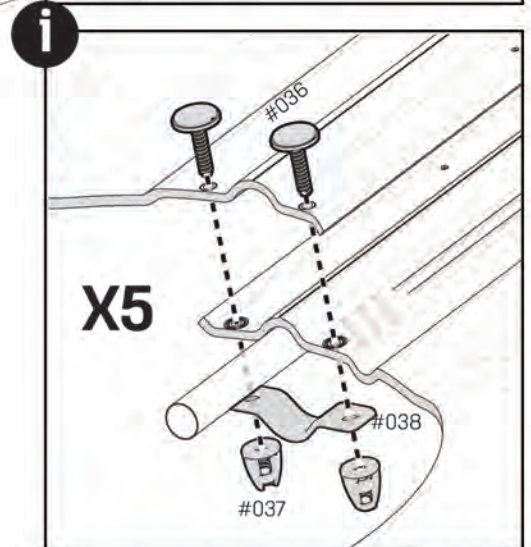
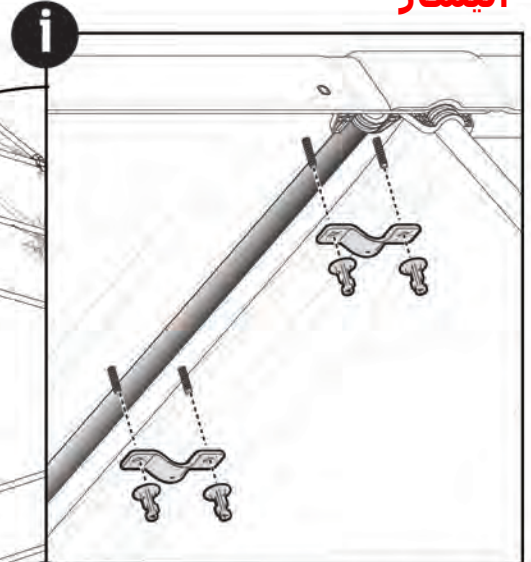
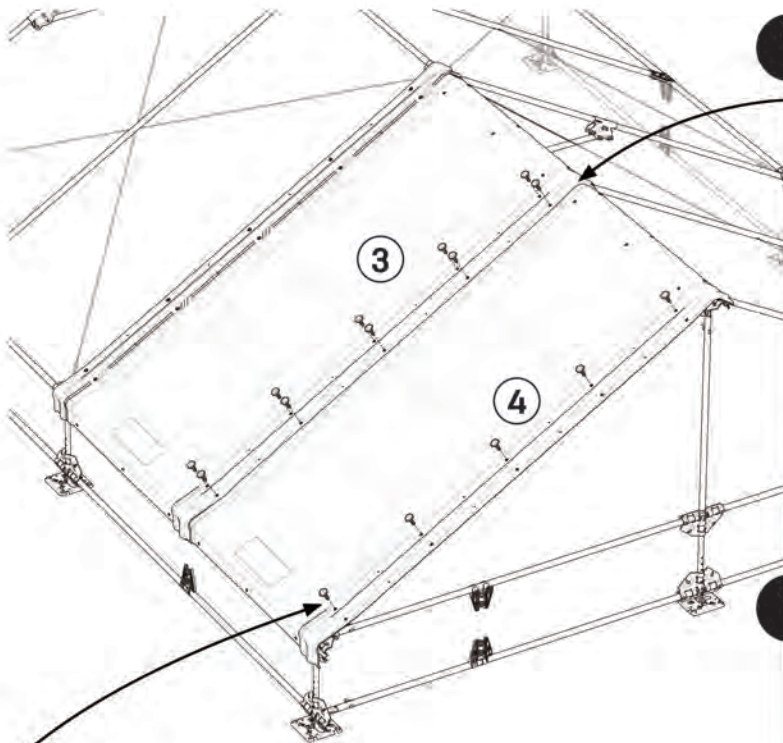


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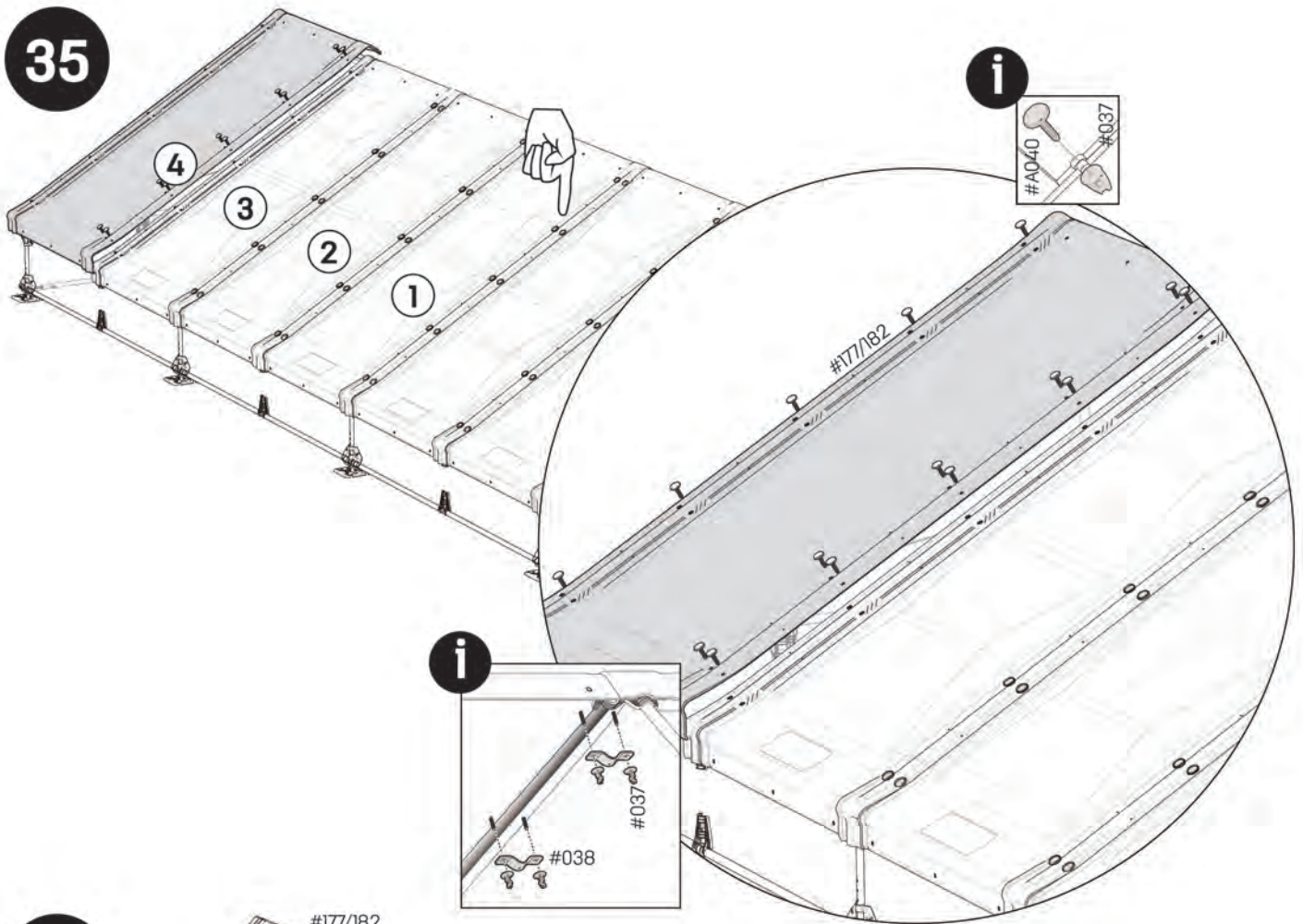


Start applying
panels from
right to left.

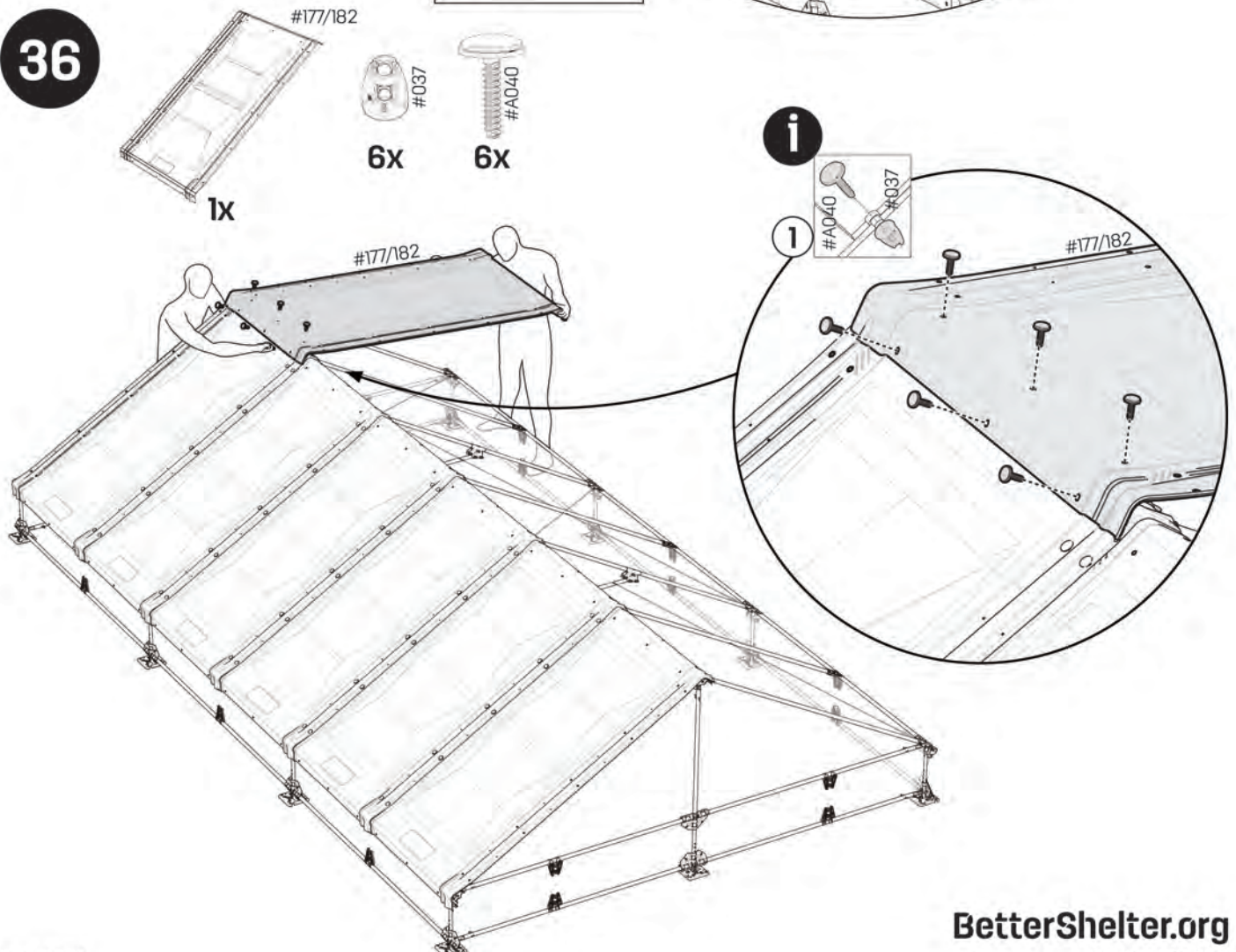
ابدأ بتركيب الألواح
من اليمين إلى
اليسار



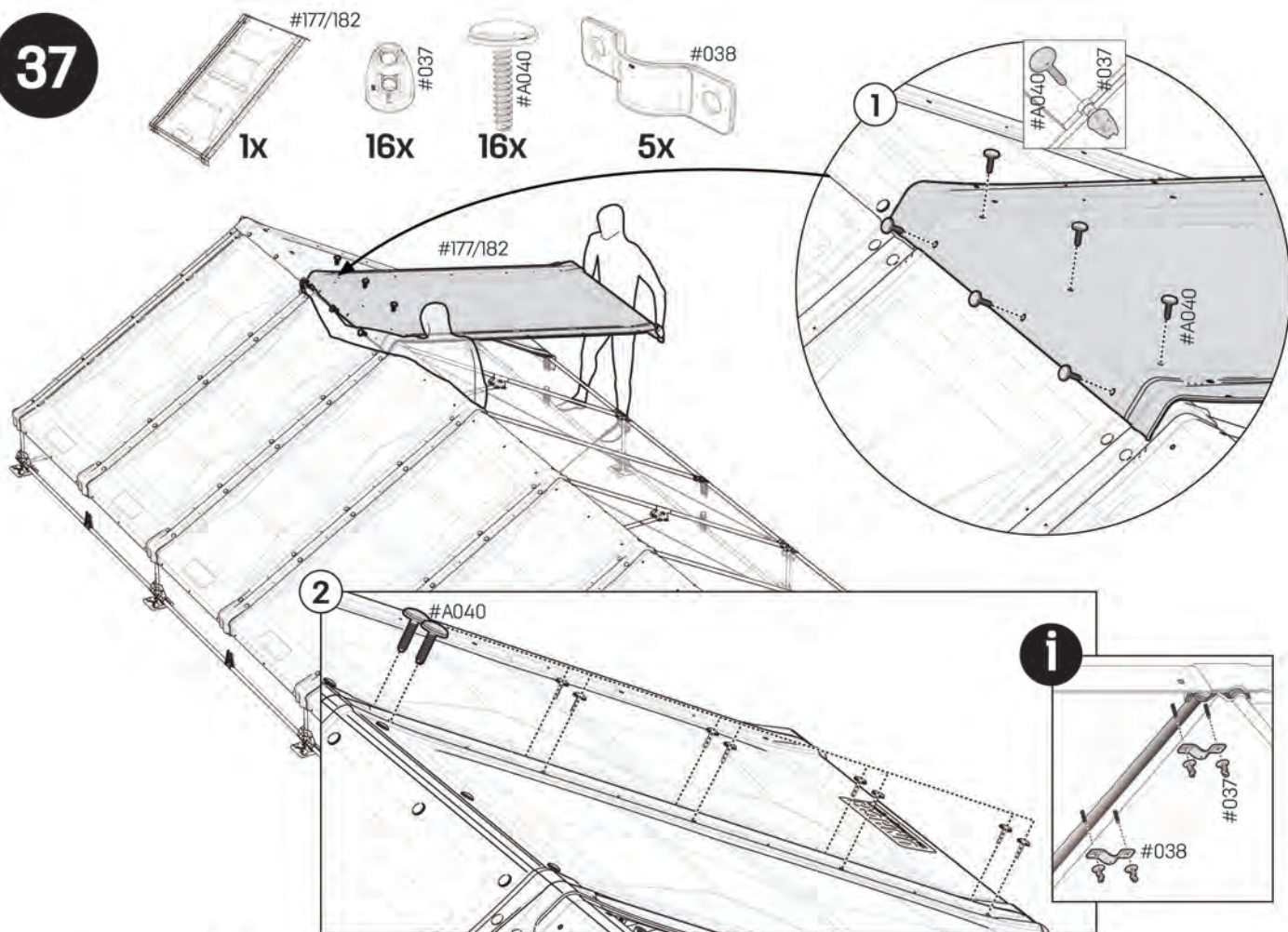
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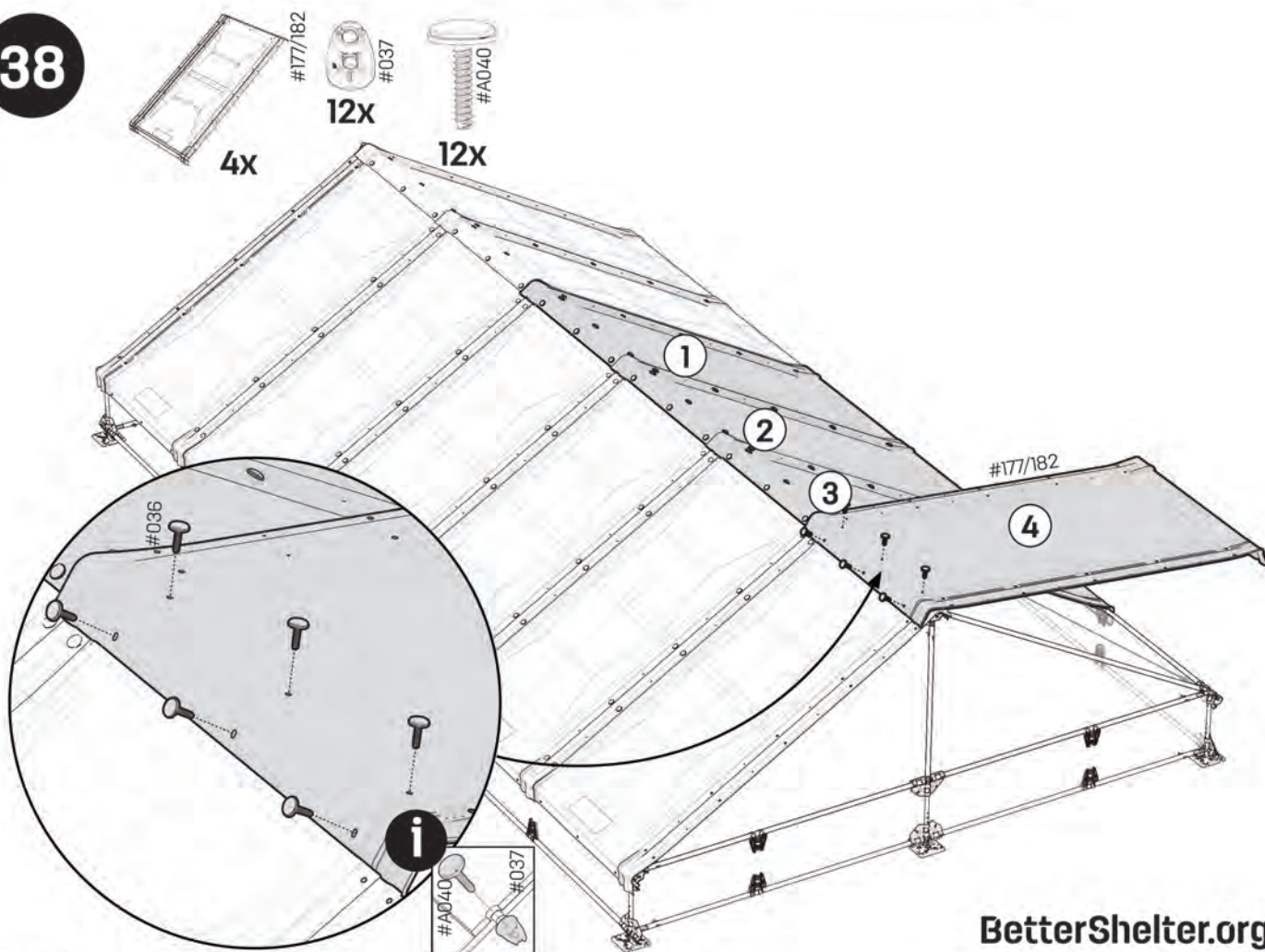
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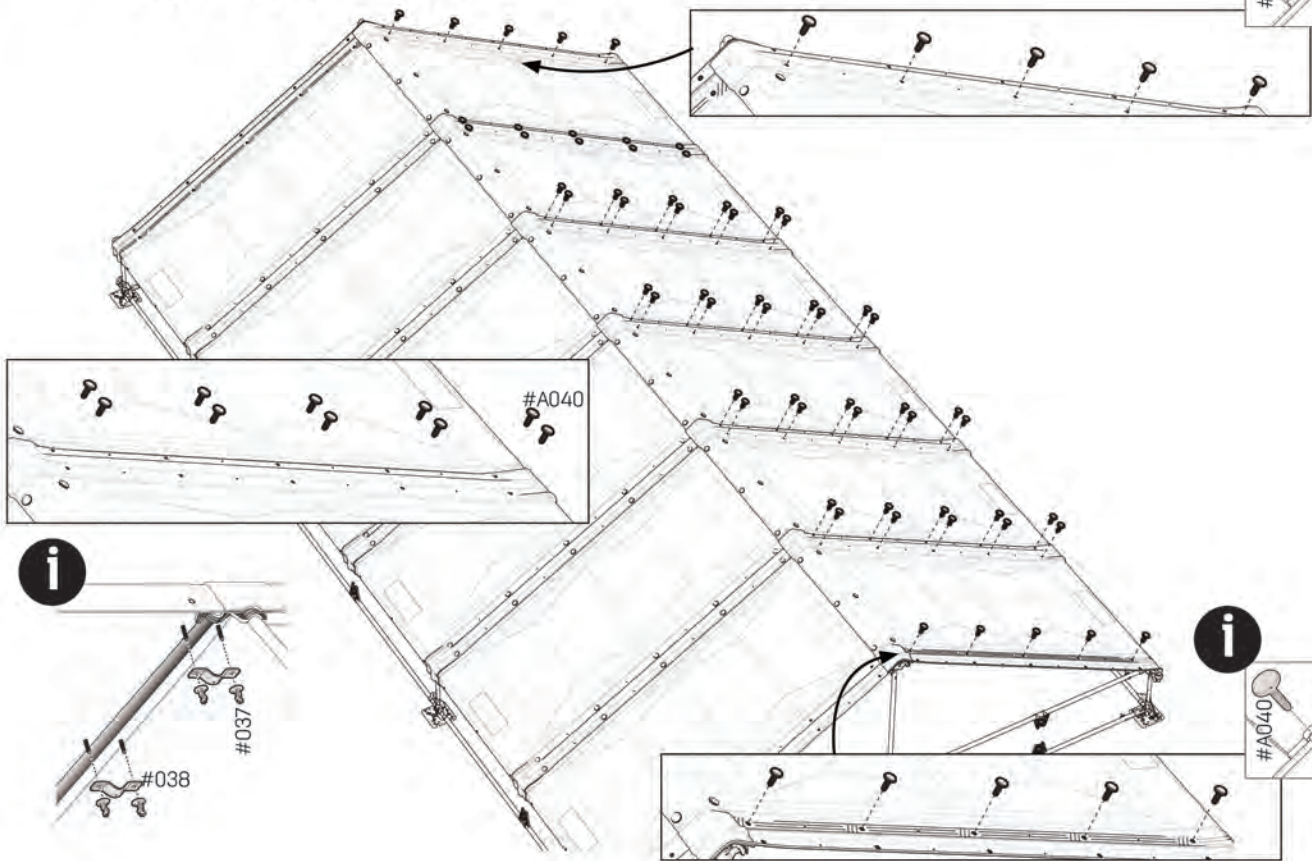
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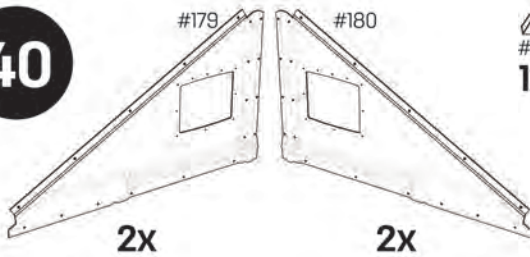
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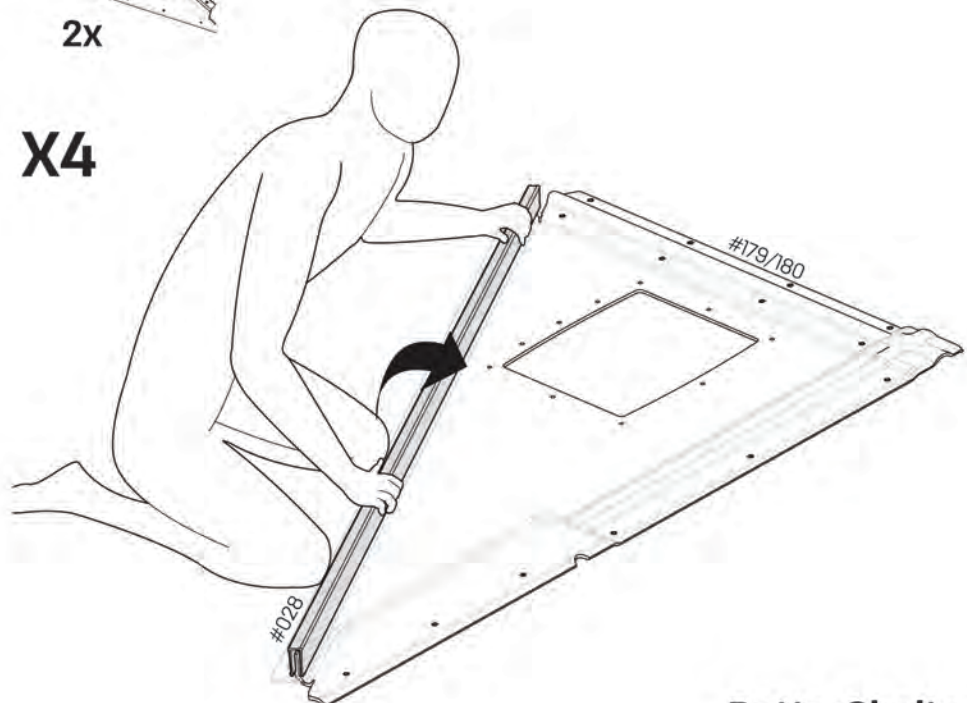
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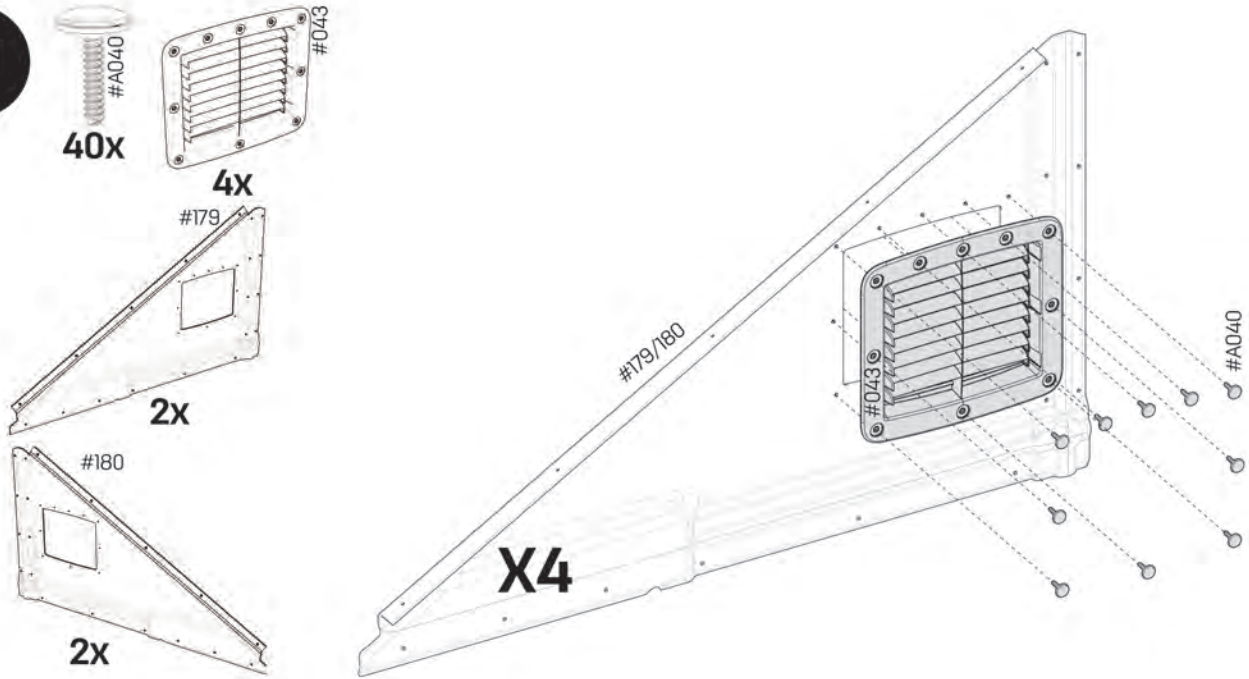
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X4



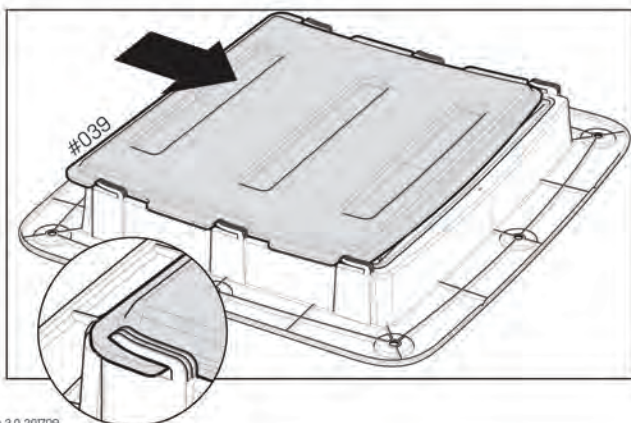
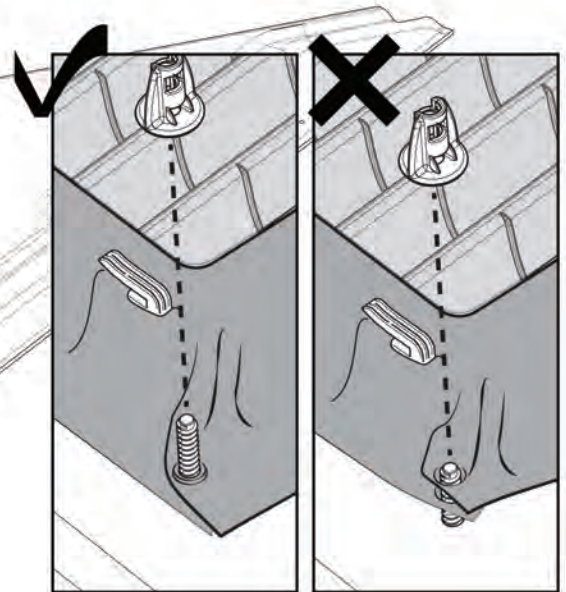
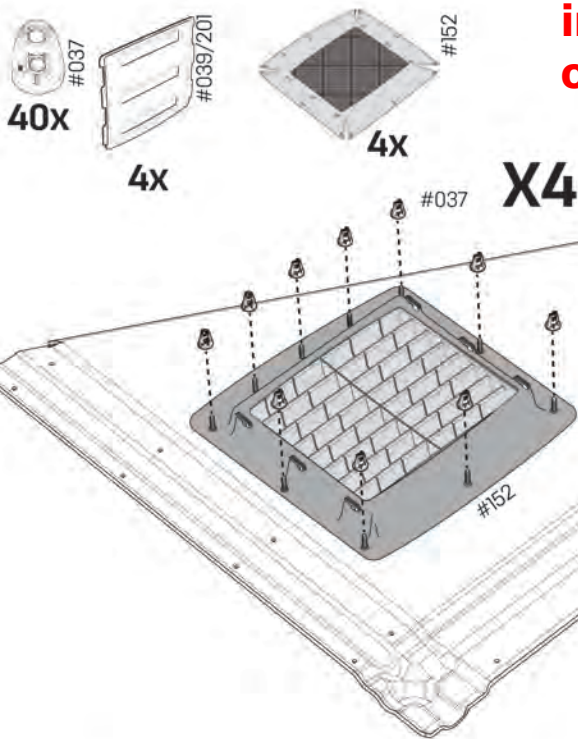
41



قم بدفع نسيج الناموسية بالكامل فوق
البراغي حتى لا يتشابك القماش وتكون
فتحة التهوية مقاومة للمطر

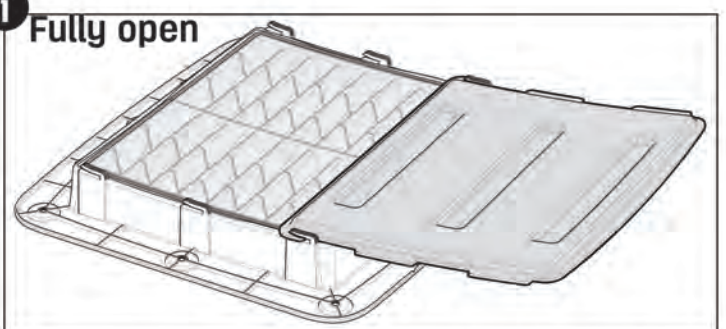
Push the fabric of the mosquito net
all the way over the bolt so that
the fabric does not get tangled up
in the thread and the ventilation
opening is rain proof.

42



i

Fully open



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43



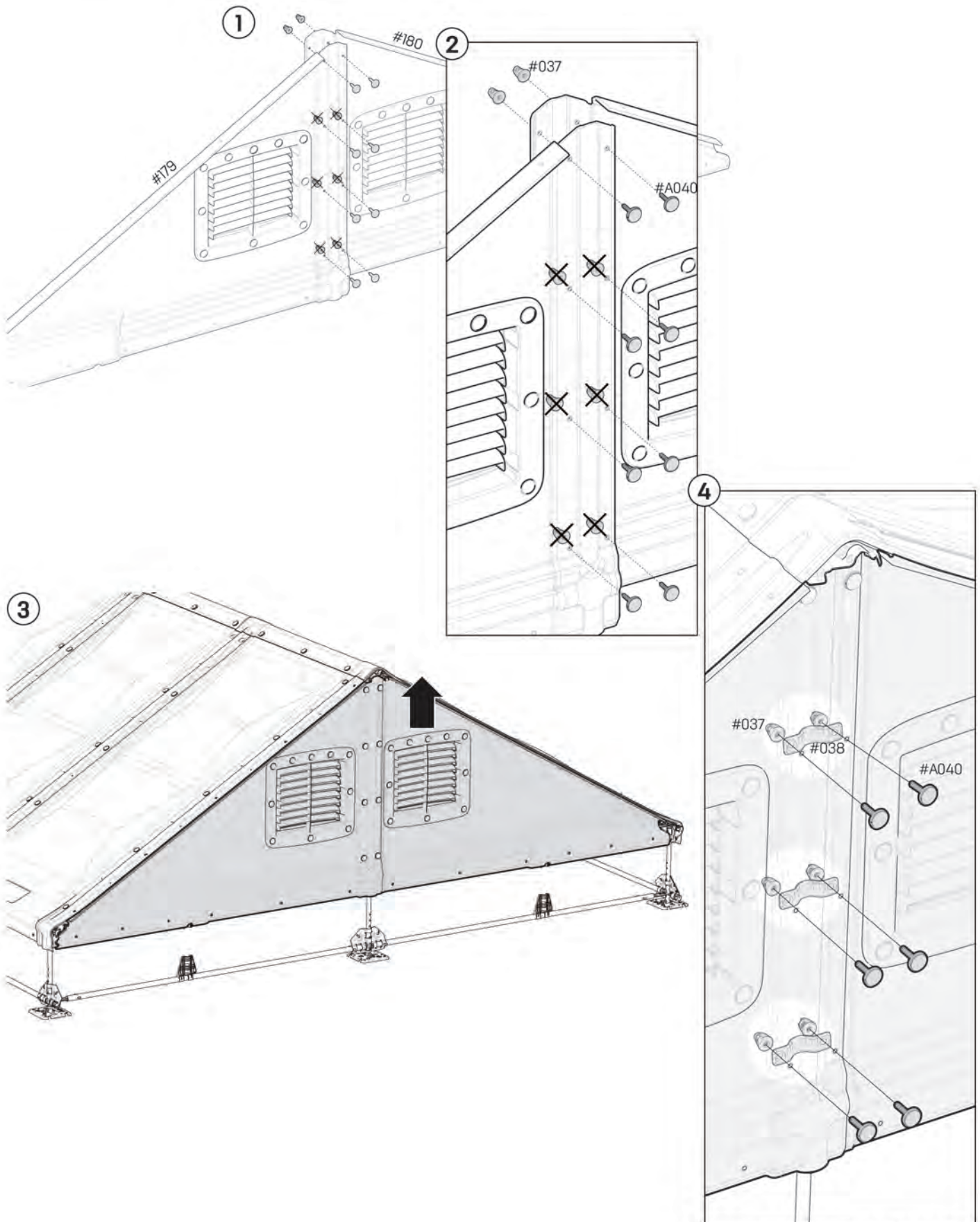
8x



8x



3x

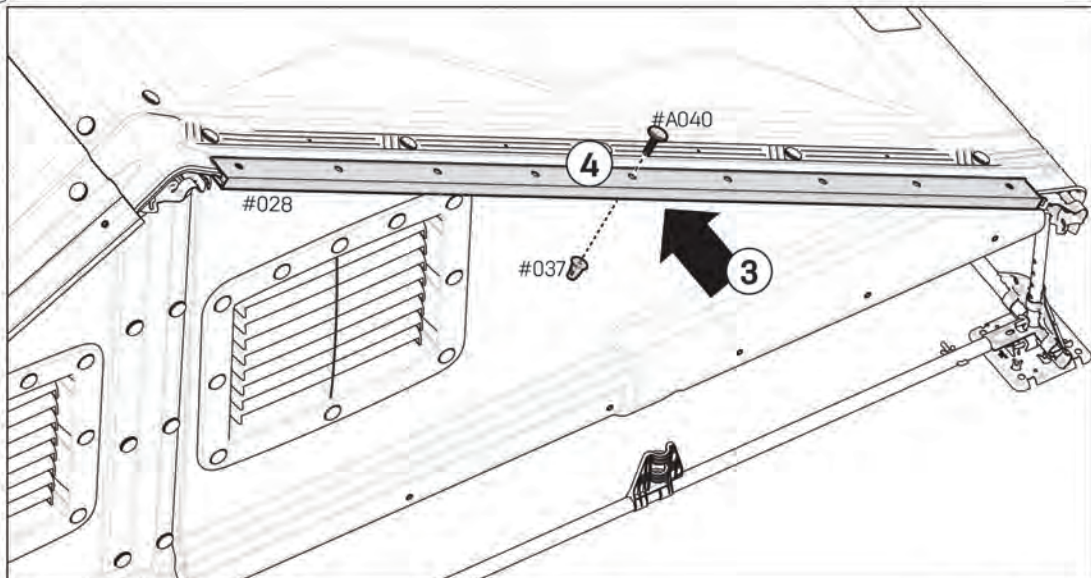
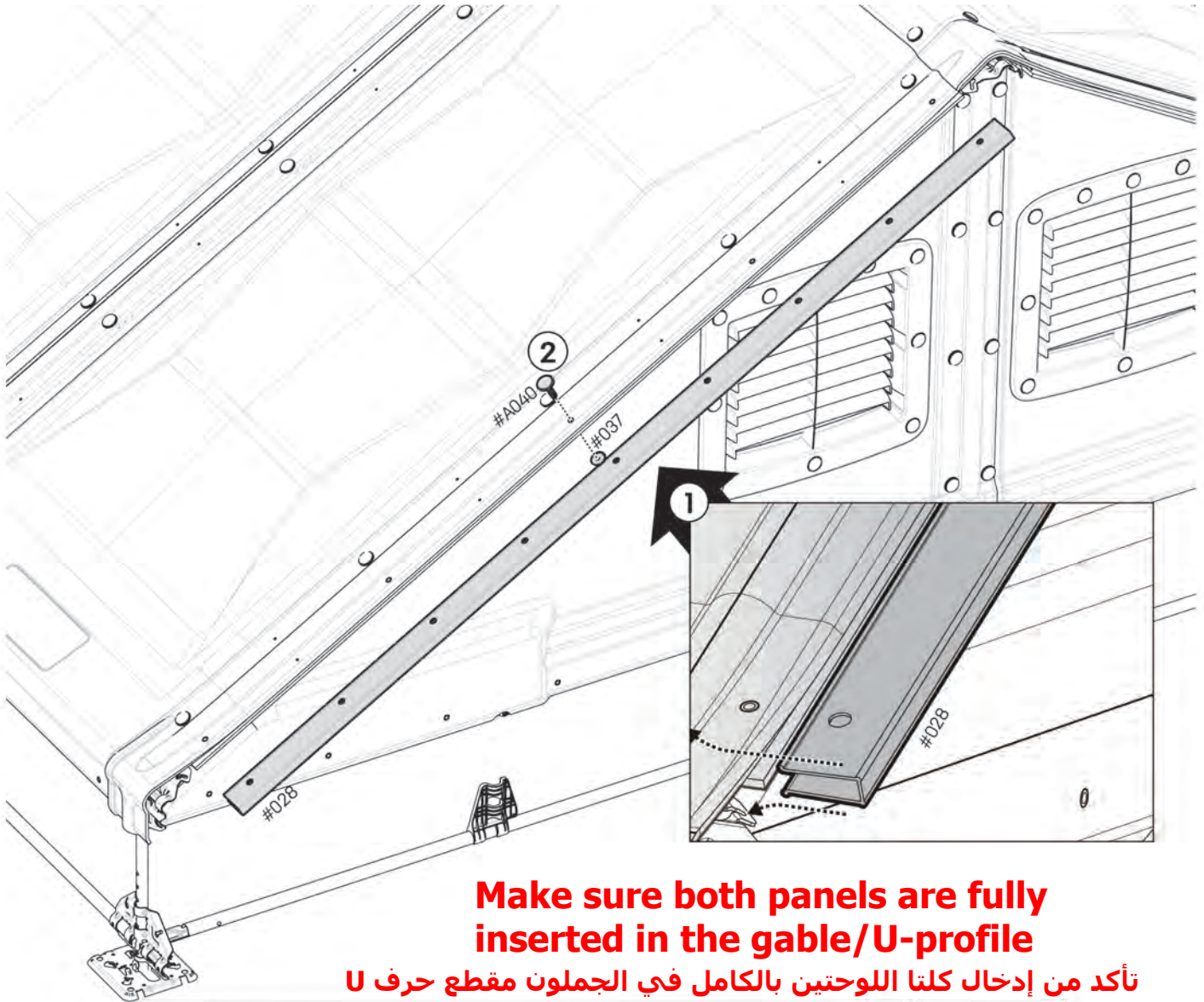


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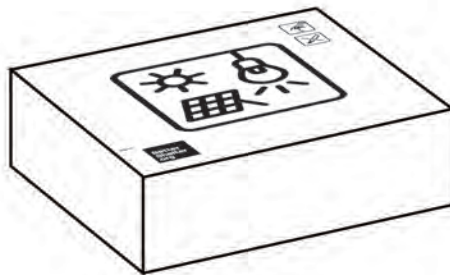
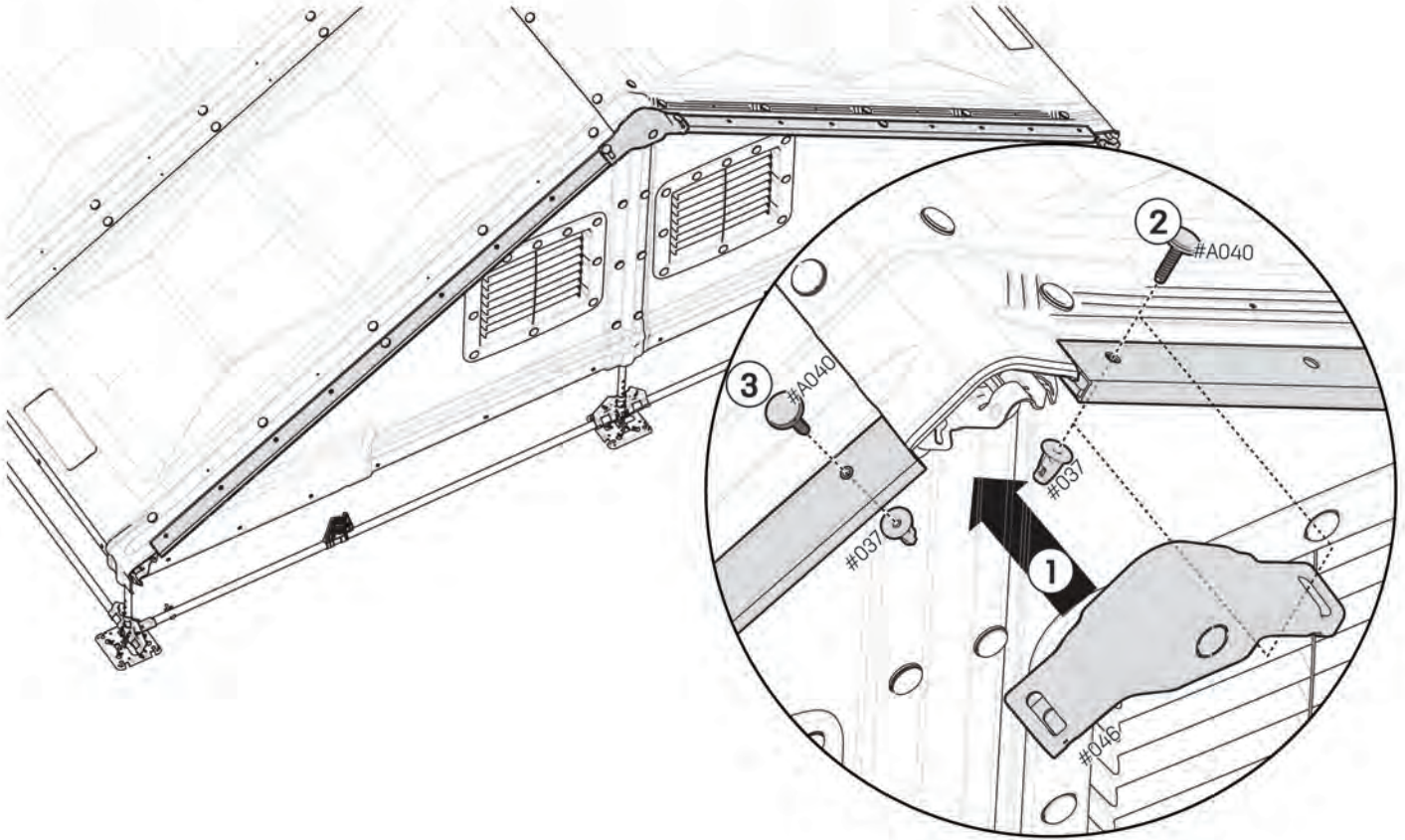
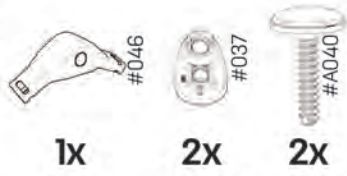
#028
2x#037
2x#A040
2x

2x

2x



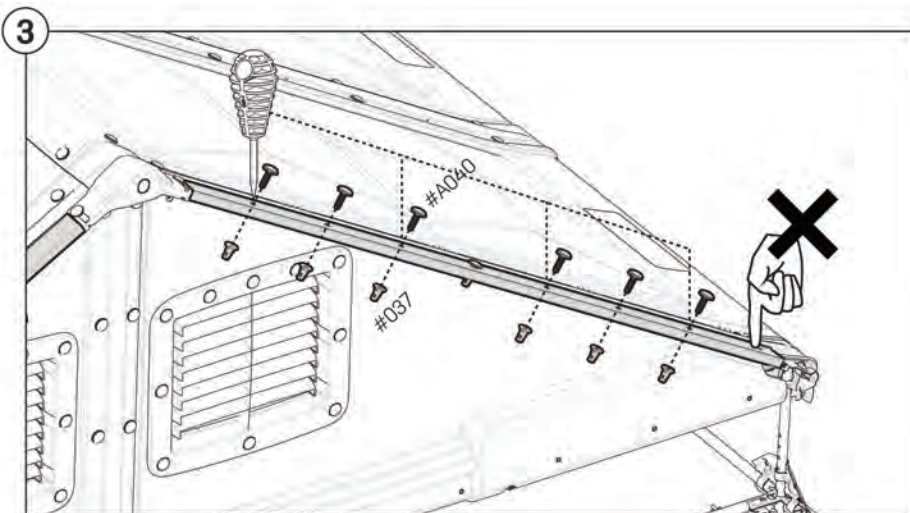
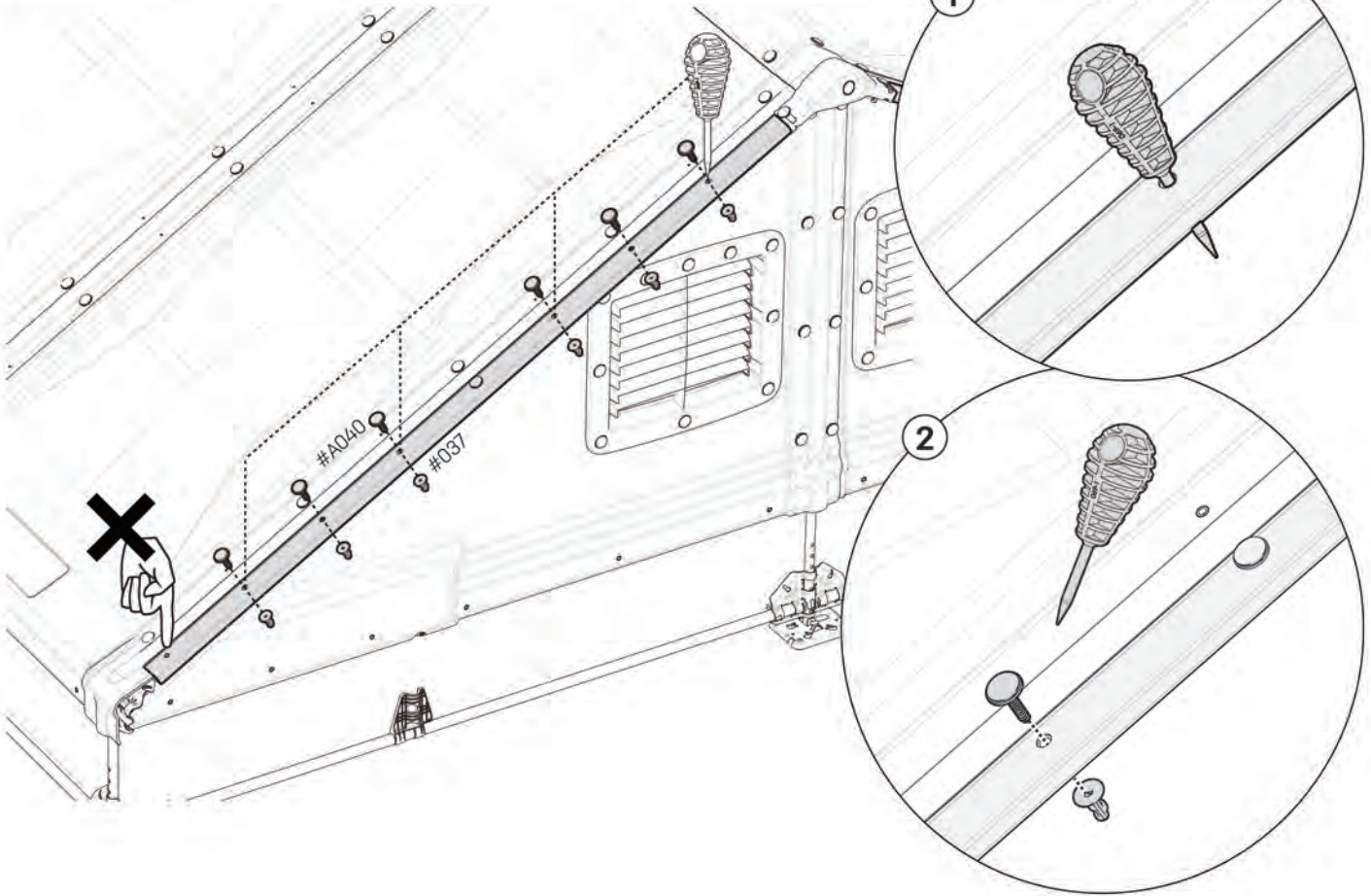
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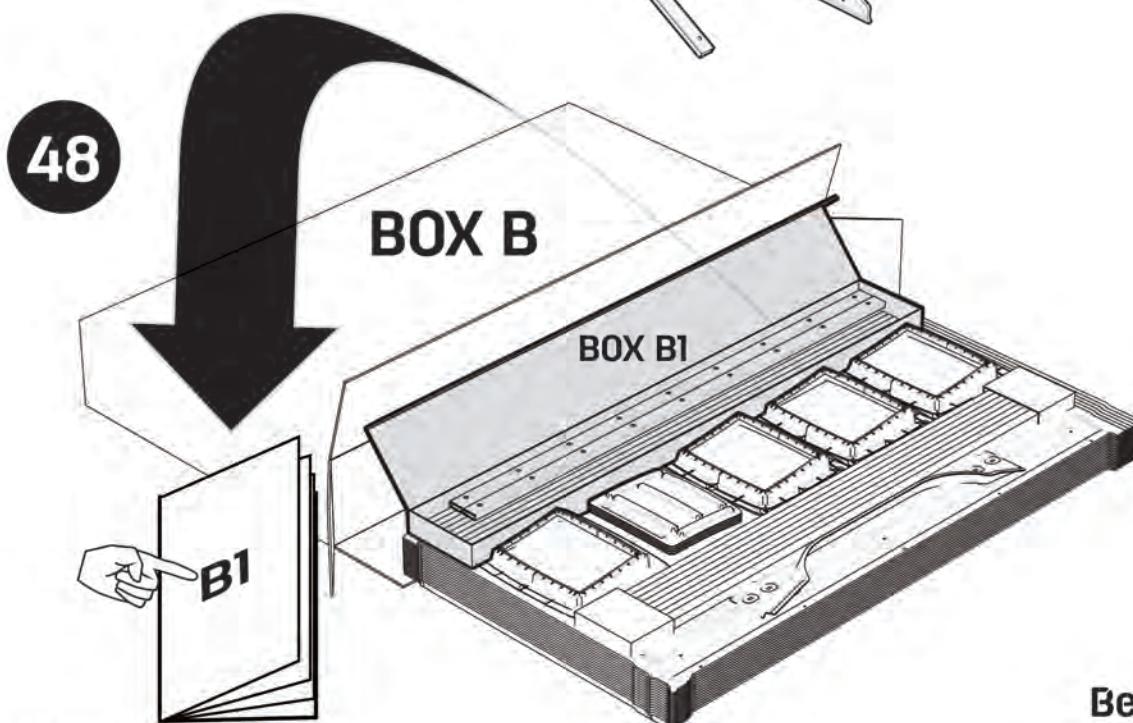
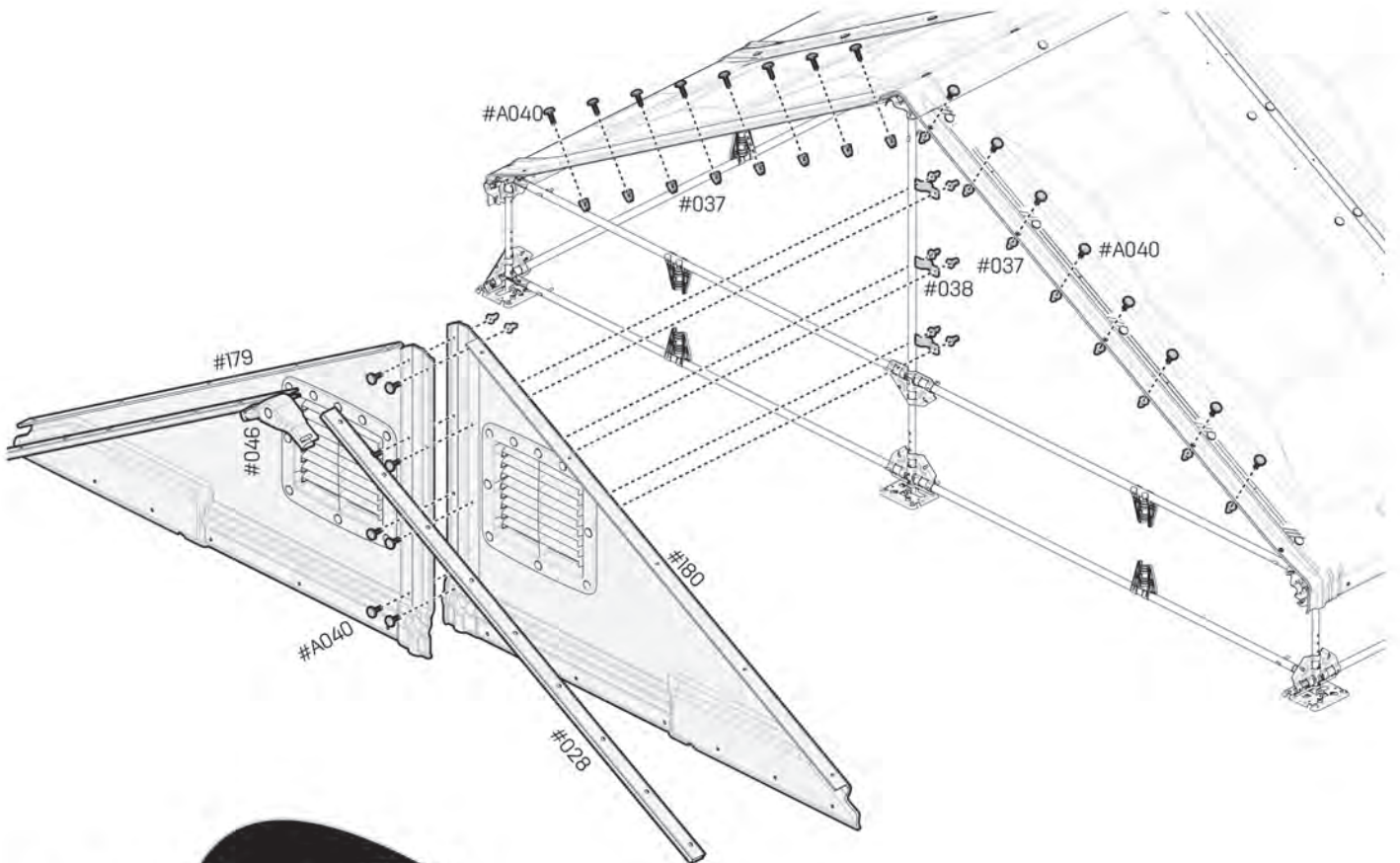
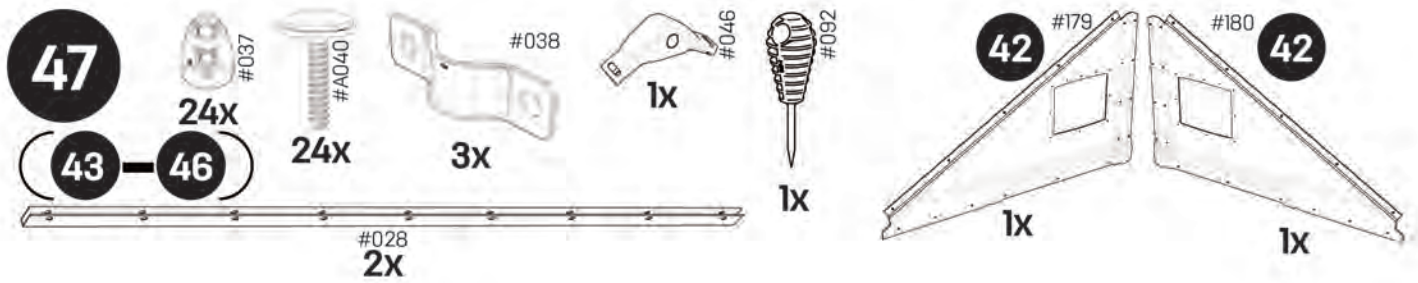


PV Panel Kit



46





Better Shelter

(194)

PV System

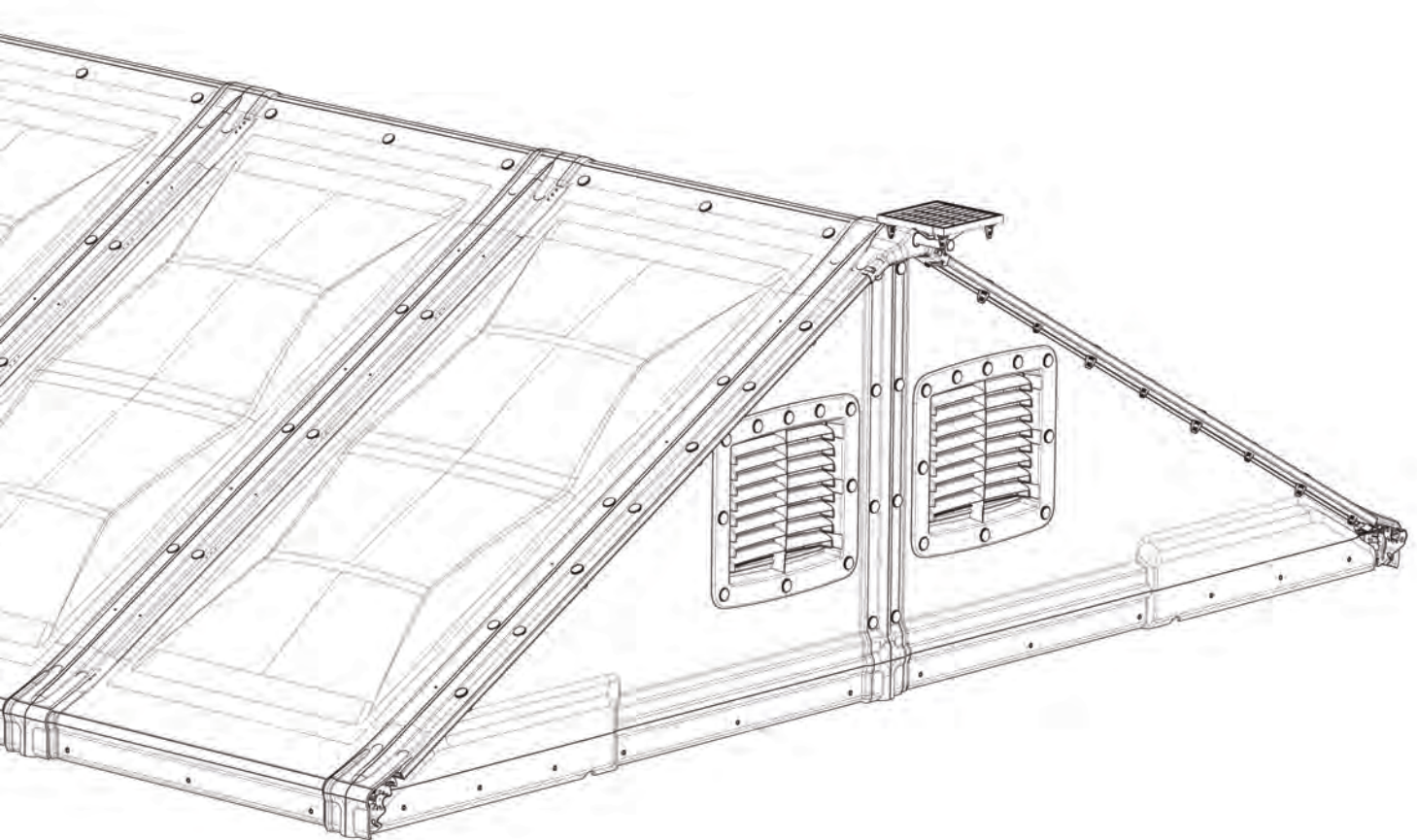
Assembly Manual

Manual de Montaje

Manuel de Montage

Montageanleitung

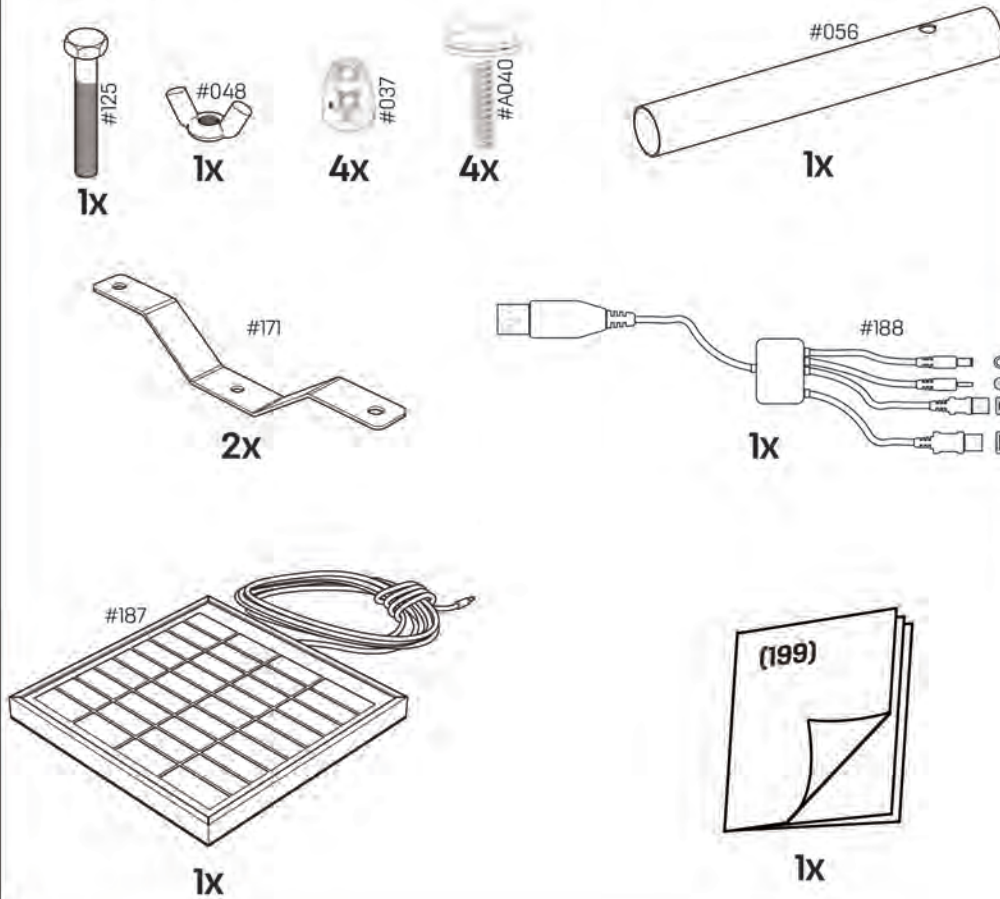
Manuale di Montaggio



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Shelter
.org**



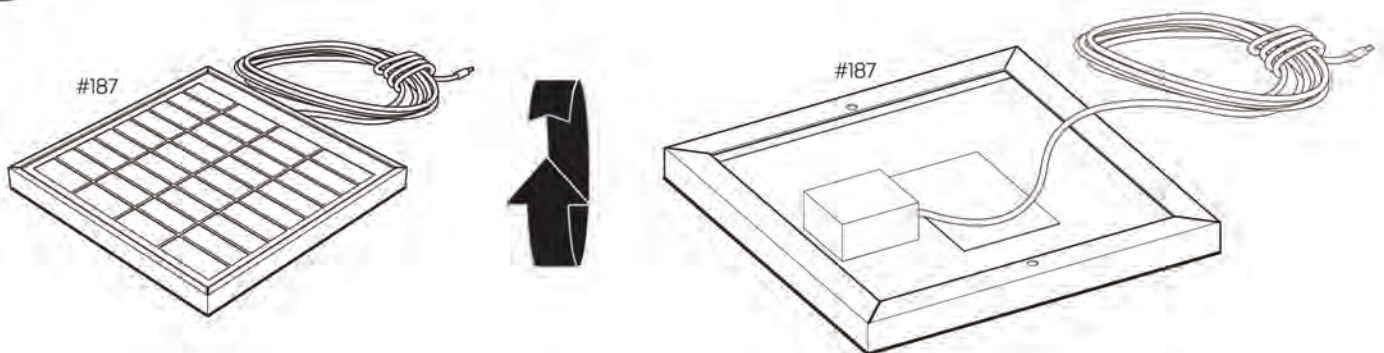
CONTENTS PV Panel System



CONTENTS PV Lamp (Box B)

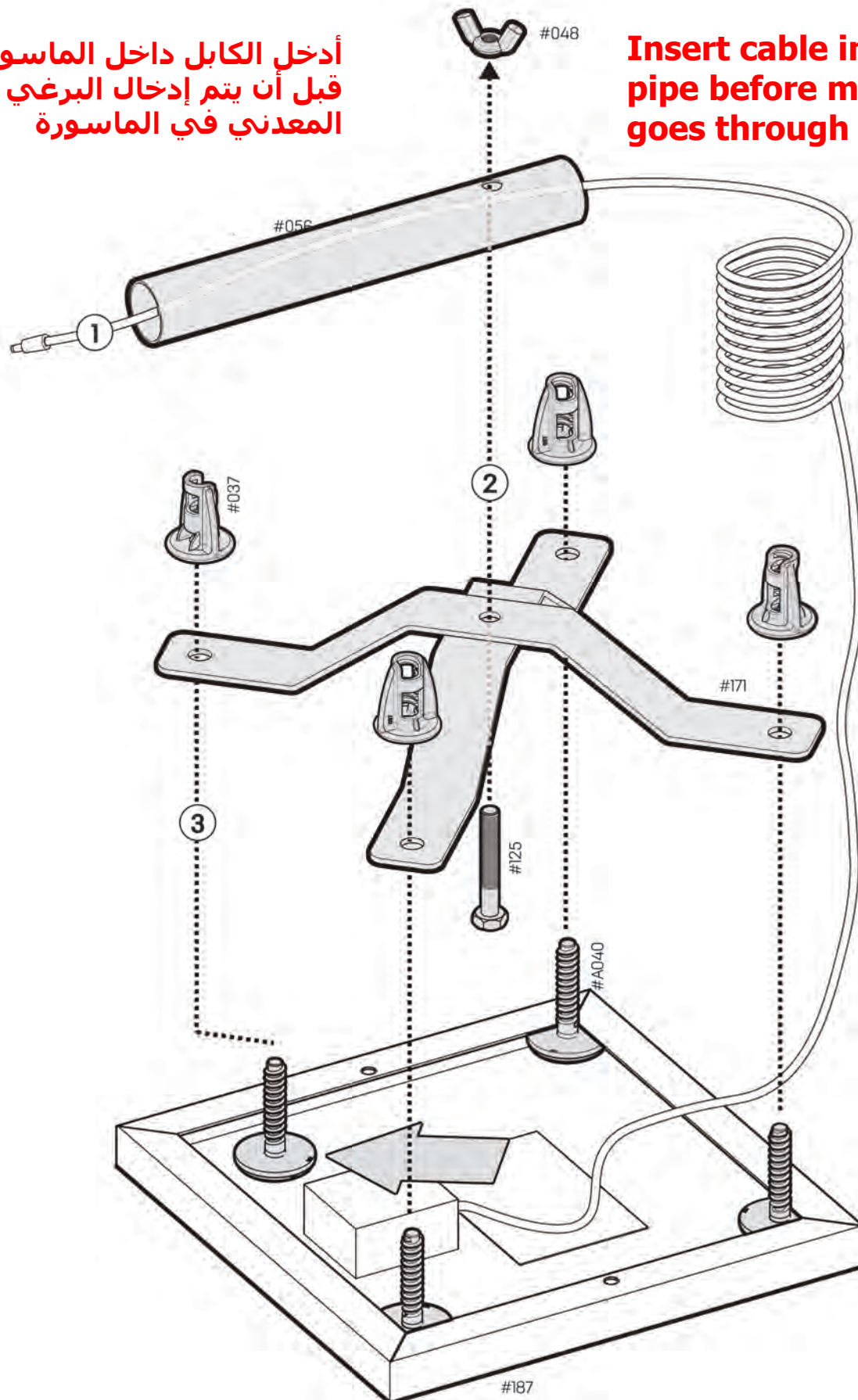


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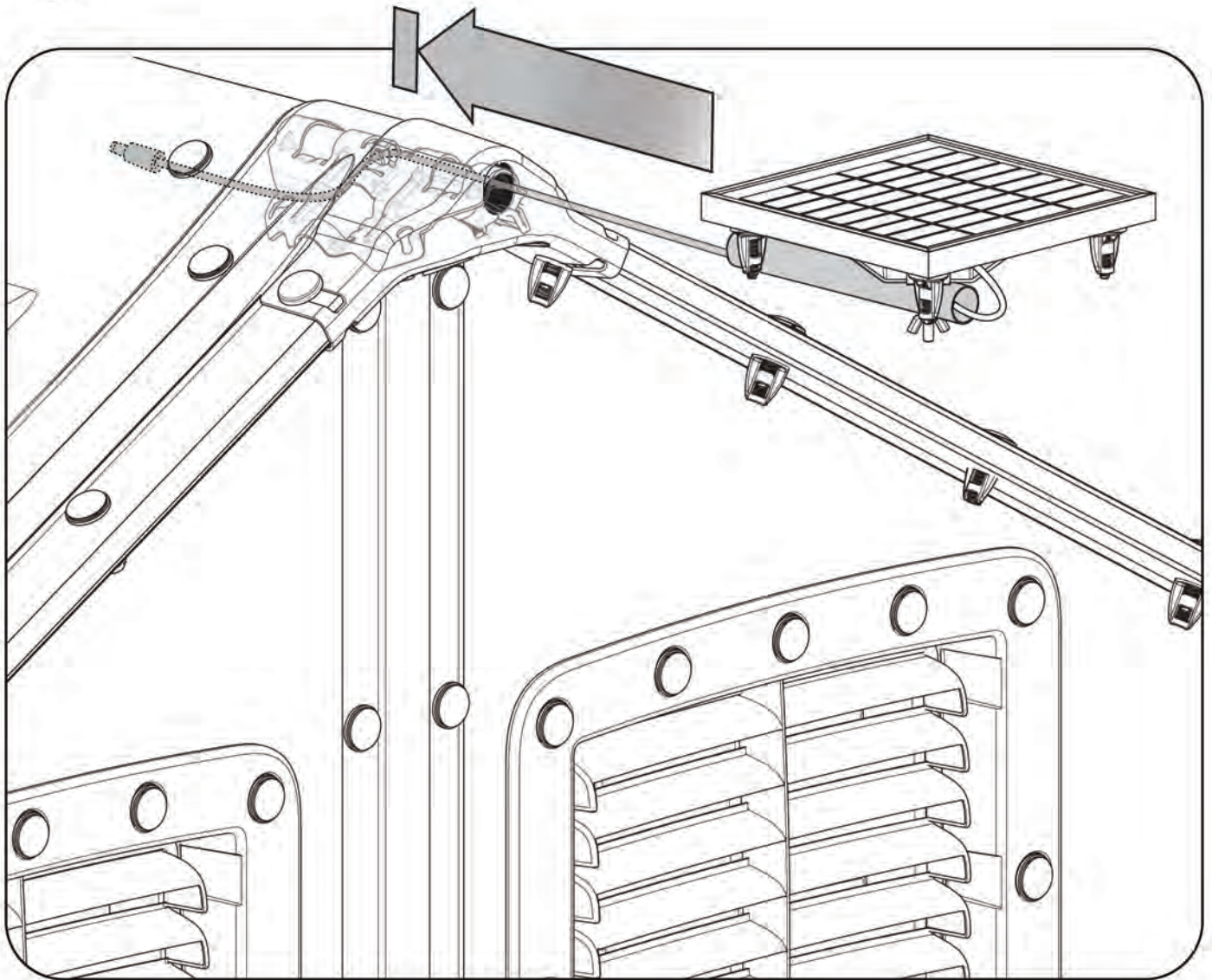


**أدخل الكابل داخل الماسورة
قبل أن يتم إدخال البرغي
المعدني في الماسورة**

Insert cable inside the pipe before metal bolt goes through the pipe.



3



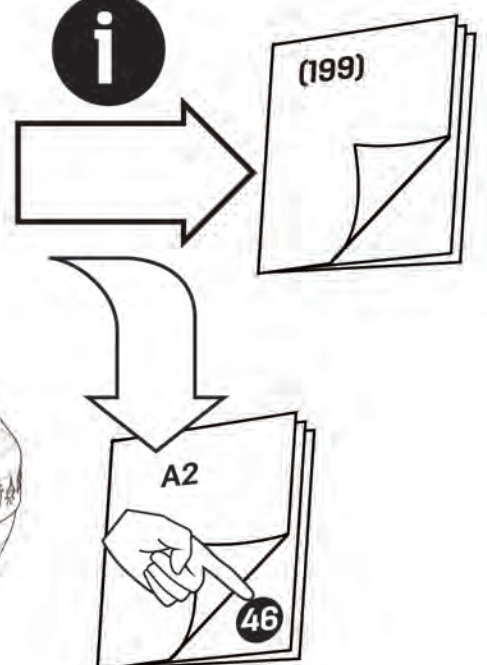
4



5



i

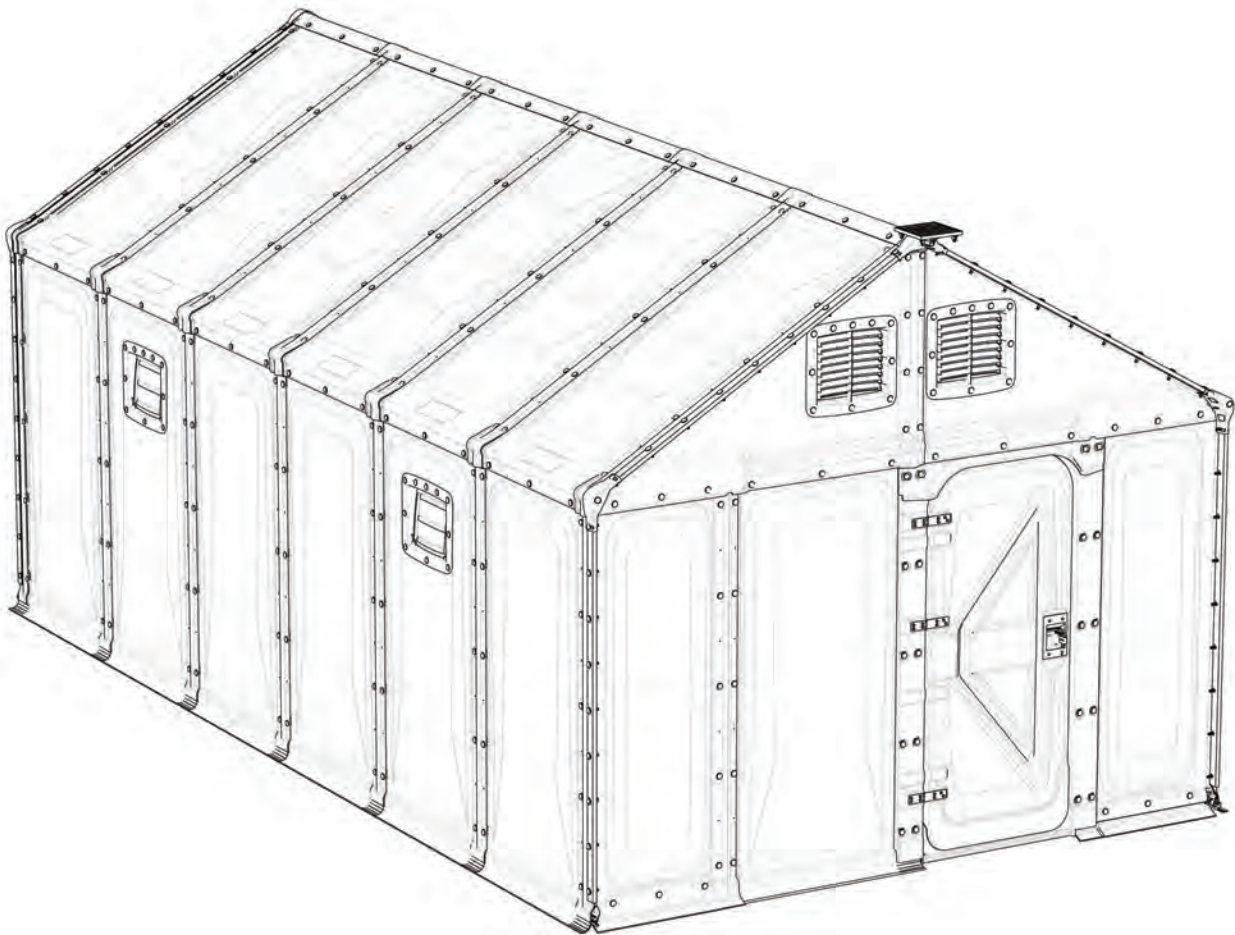


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Better Shelter B _ Walls Assembly Manual

(197)

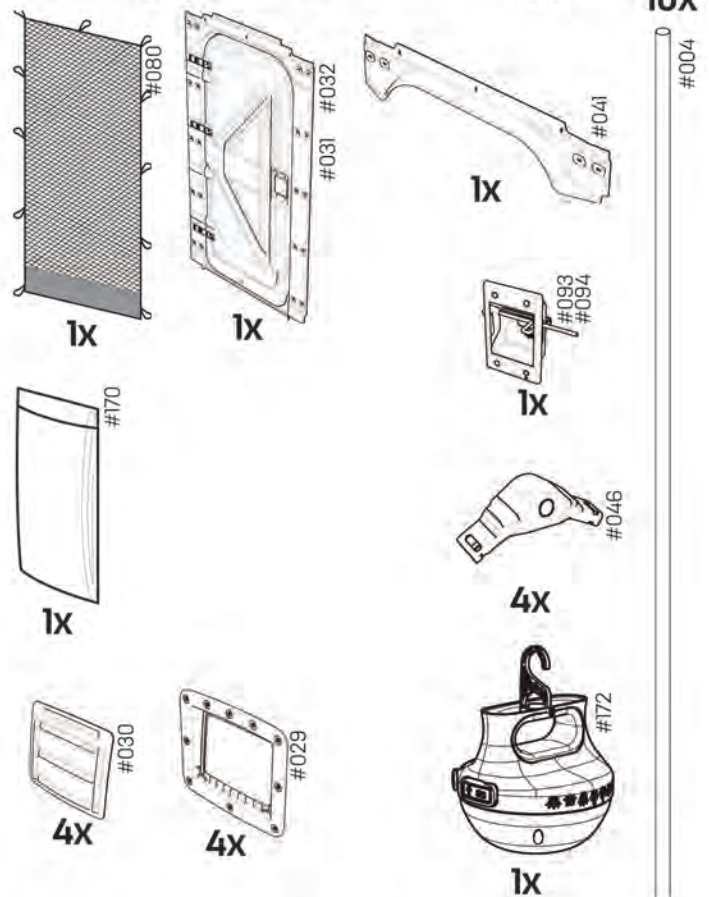
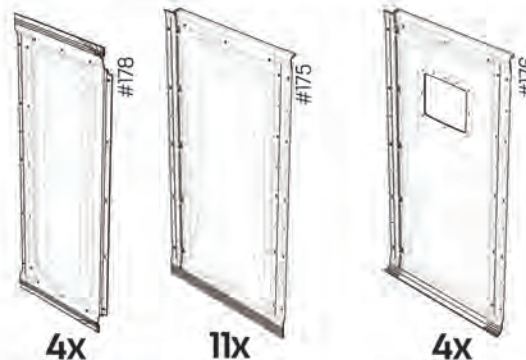
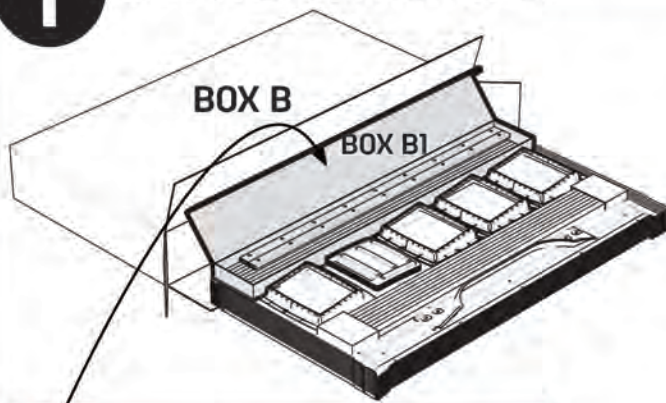
Manual de Montaje
Manuel de Montage
Montageanleitung
Manuale di Montaggio



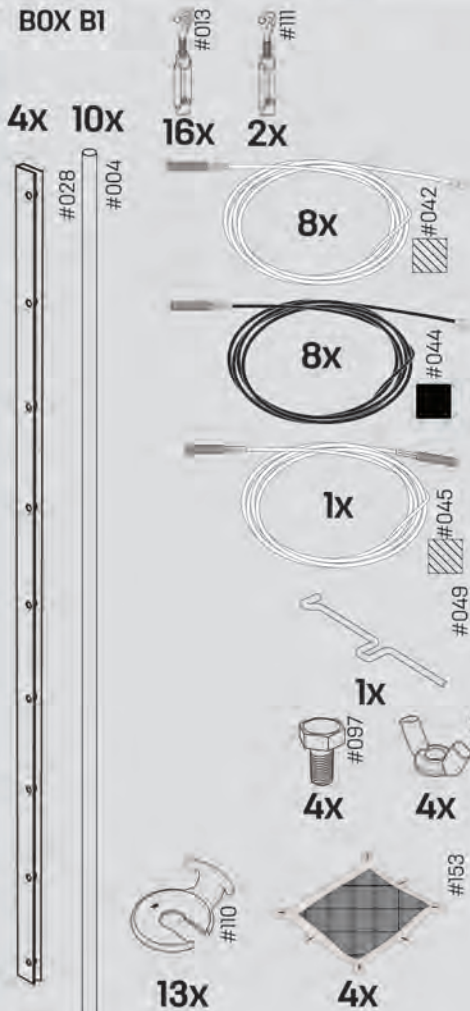
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.org**



CONTENTS Box B



BOX B1



Legend

1 2

Main steps of assembly

1 2 3 4

Sequence of assembly



Insertion path

2x
#004

Number of parts in step or total
Part ID number

X2

Number of repetitions



Movement direction



Active part



Information



Detail placement



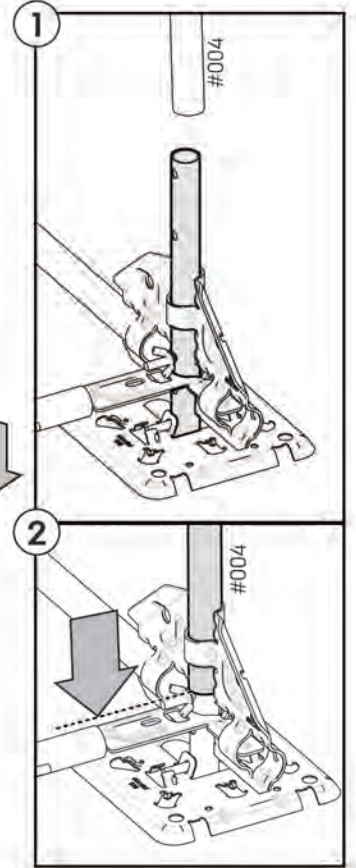
Rotate part or move to opposite part
of shelter



Important detail or position

49

10x #004



**Insert pipes all the way
until it stops against the
L-bolt**

**أدخل المواسير على طول
المسافة حتى تتوقف أمام
البرغي**

50



14x

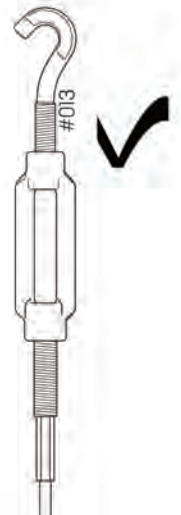
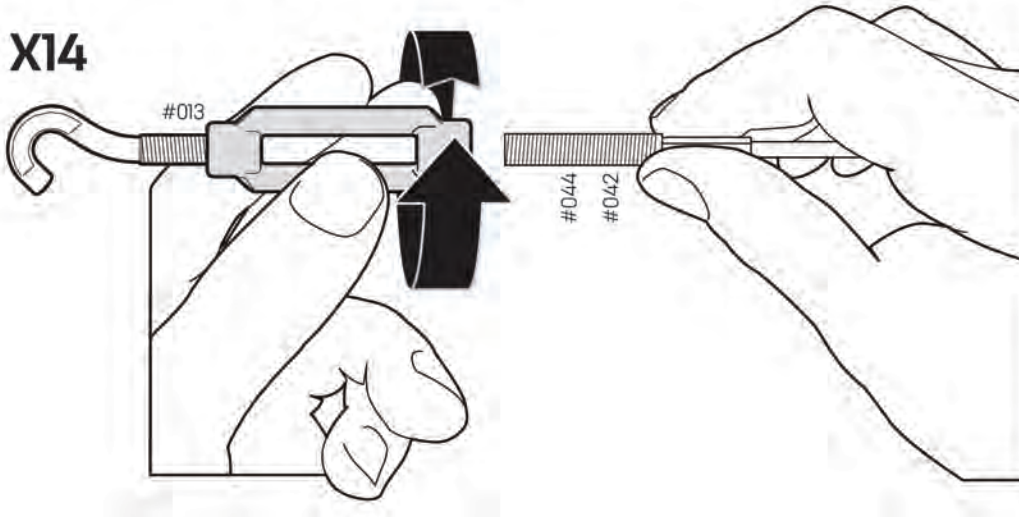


6x

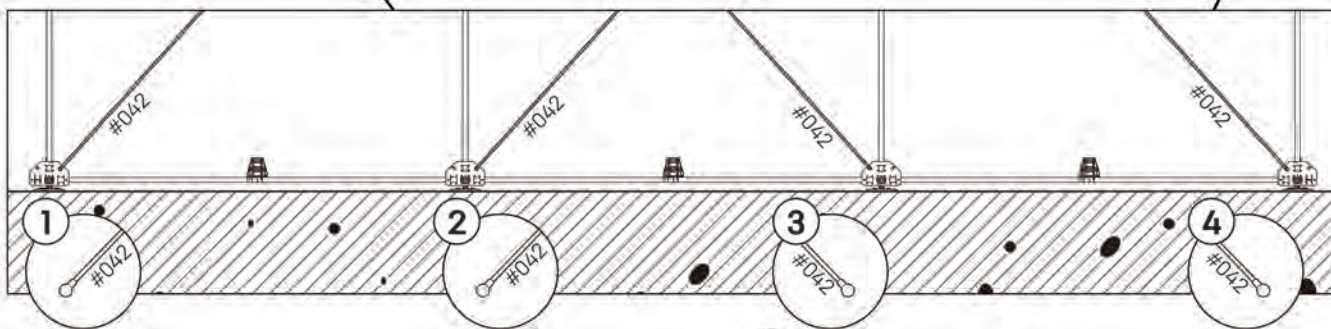
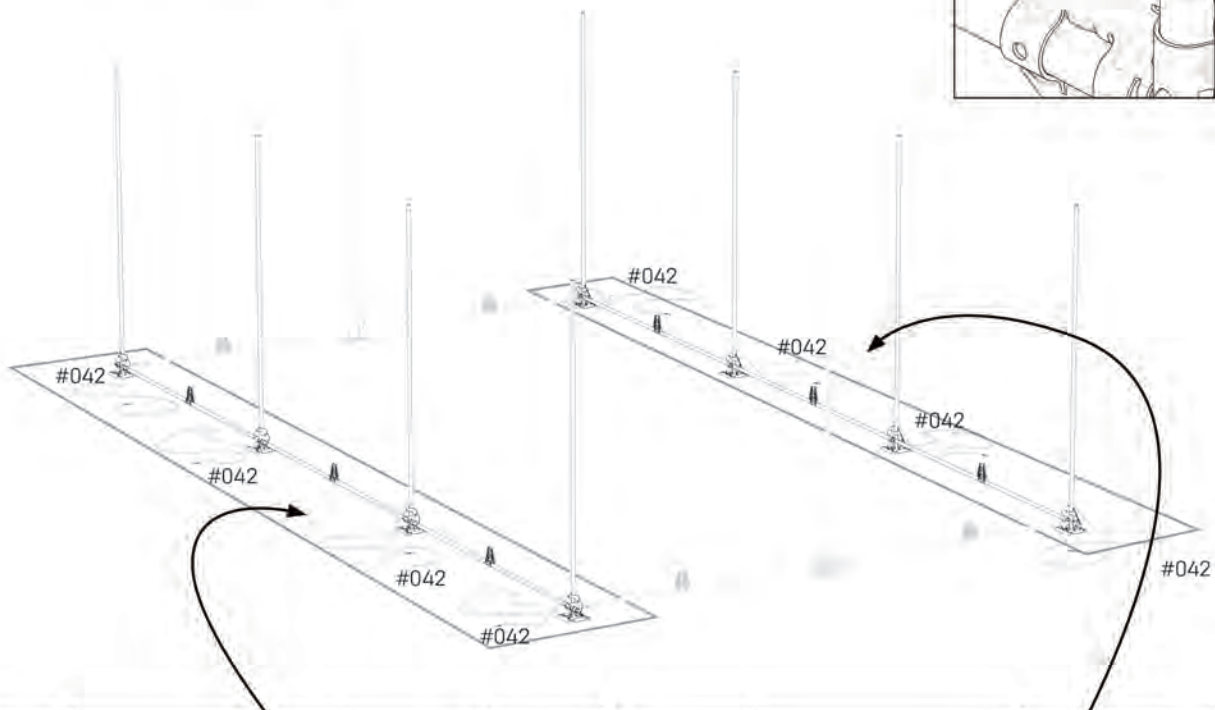
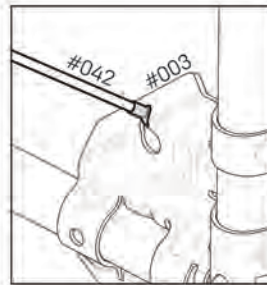


8x

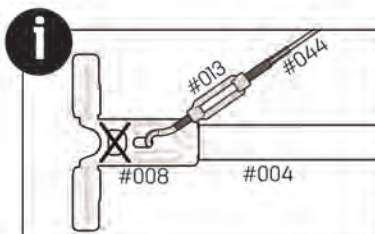
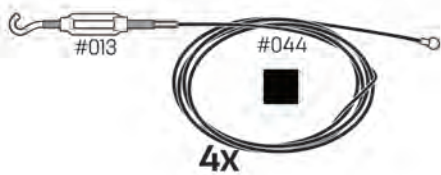
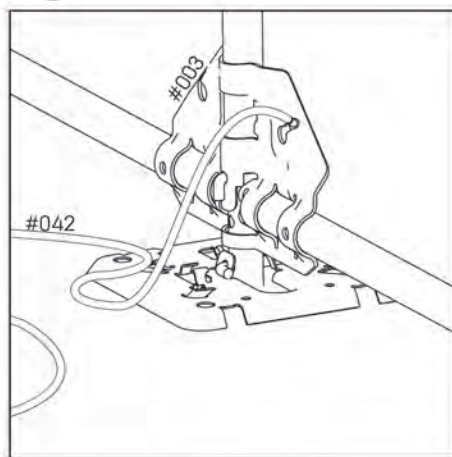
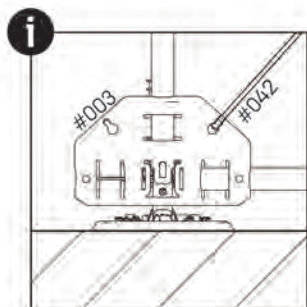
X14



51



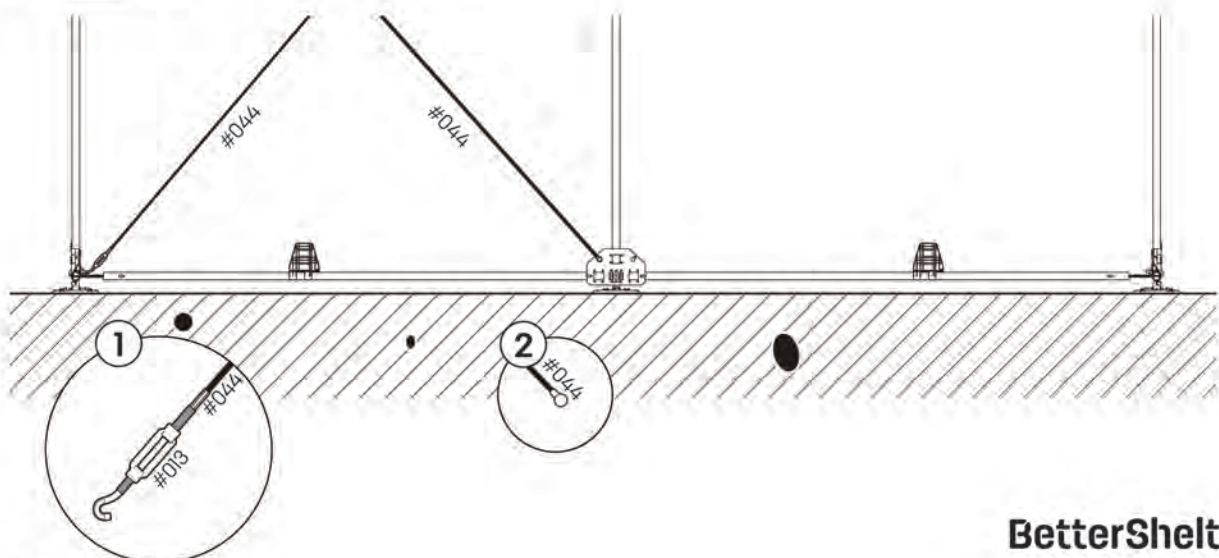
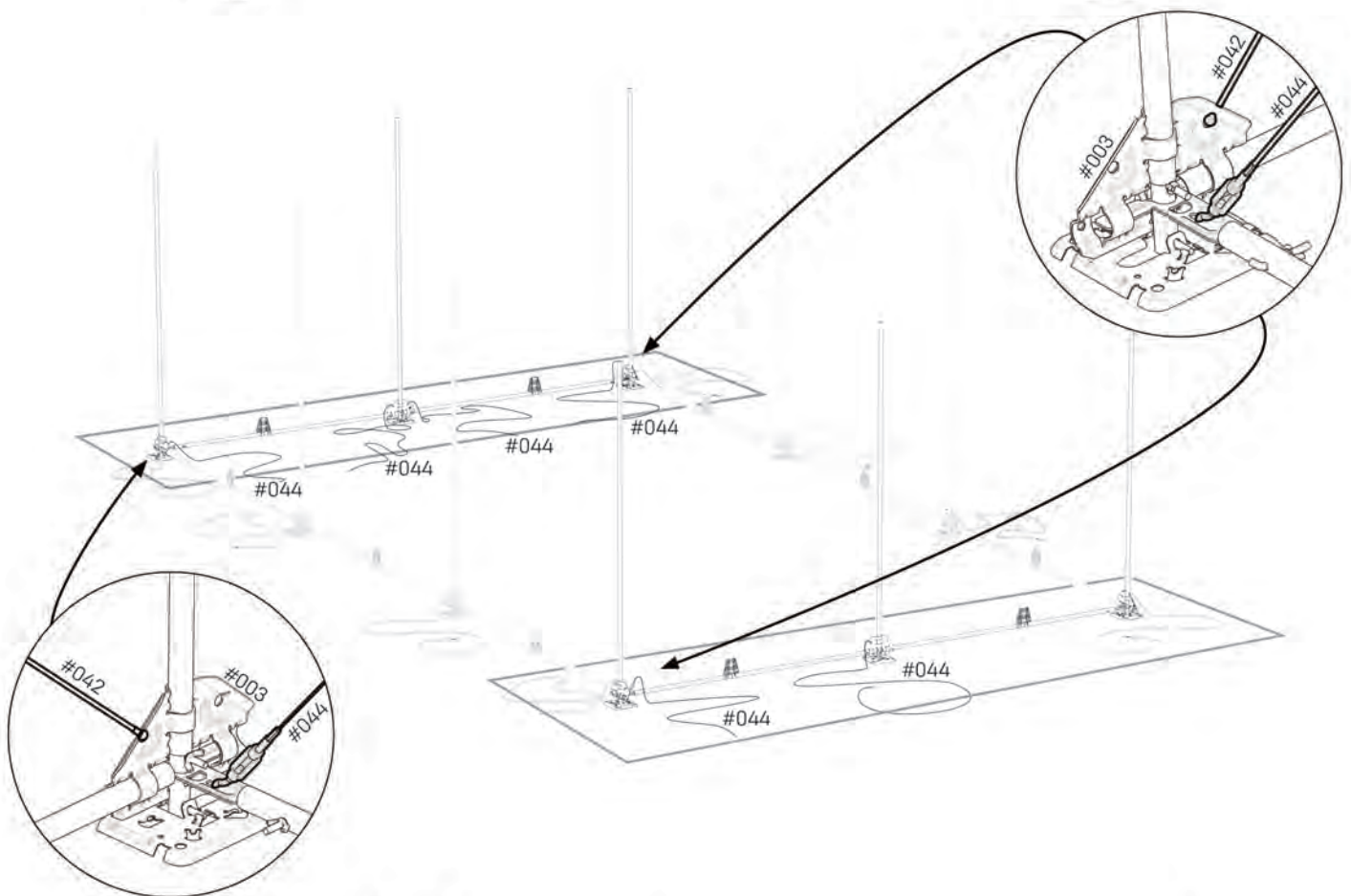
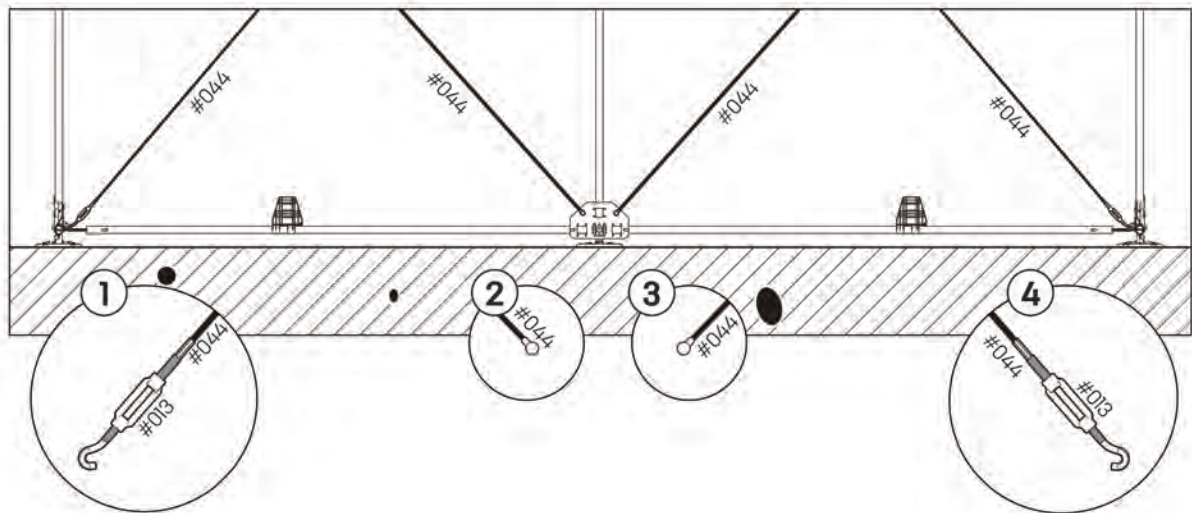
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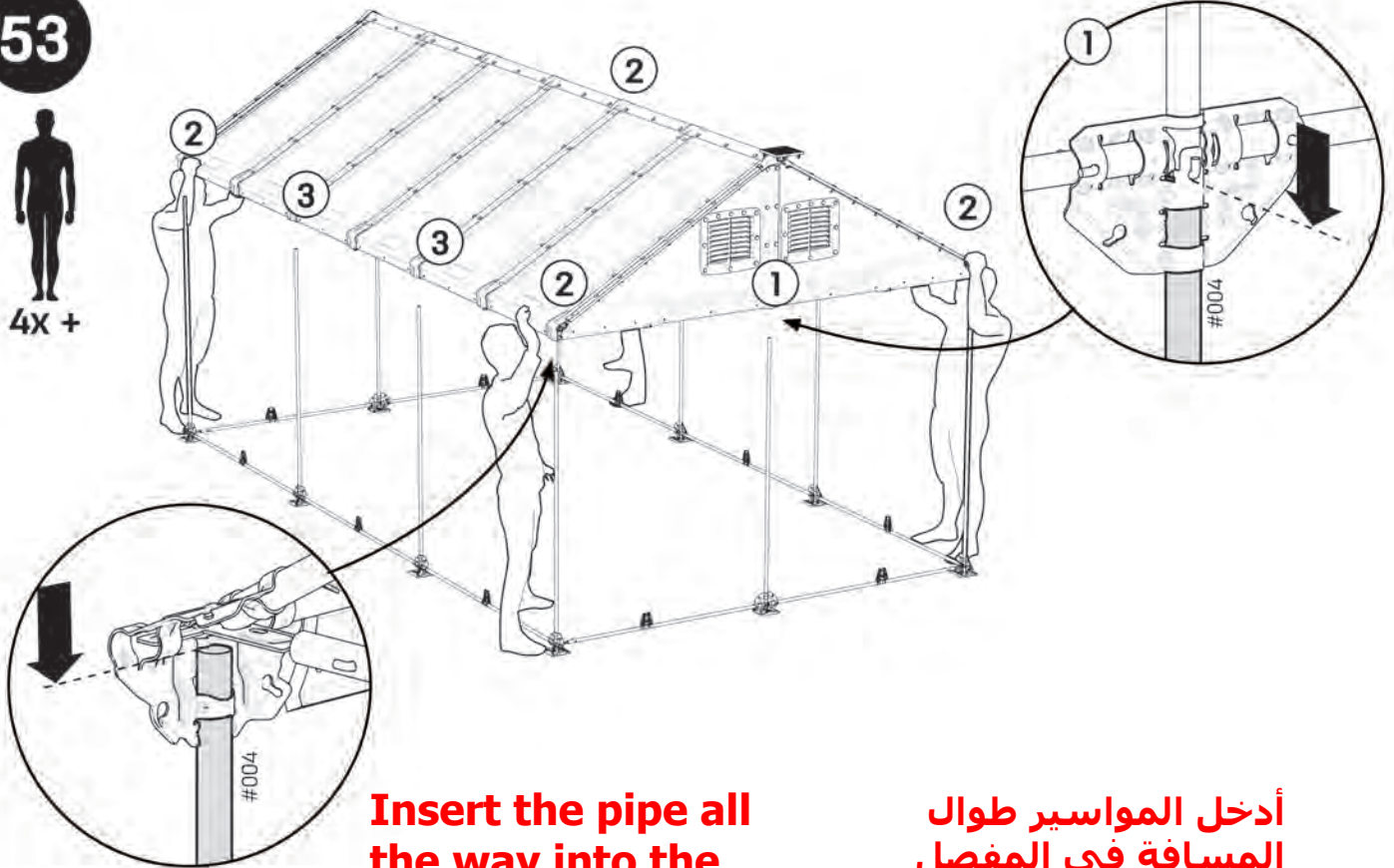
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Version 3.0 201709

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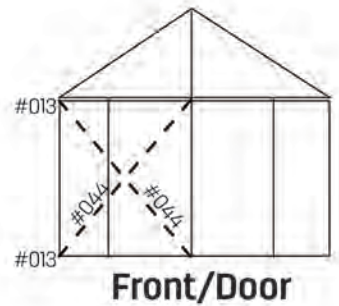
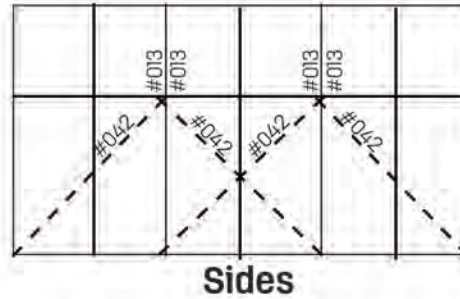
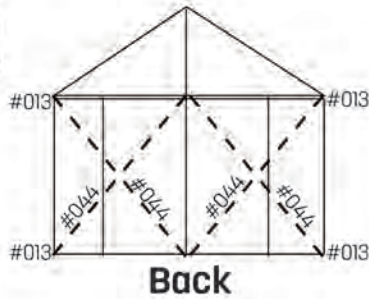
53



Insert the pipe all the way into the joint until the stop.

أدخل المواسير طوال المسافة في المفصل حتى التوقف

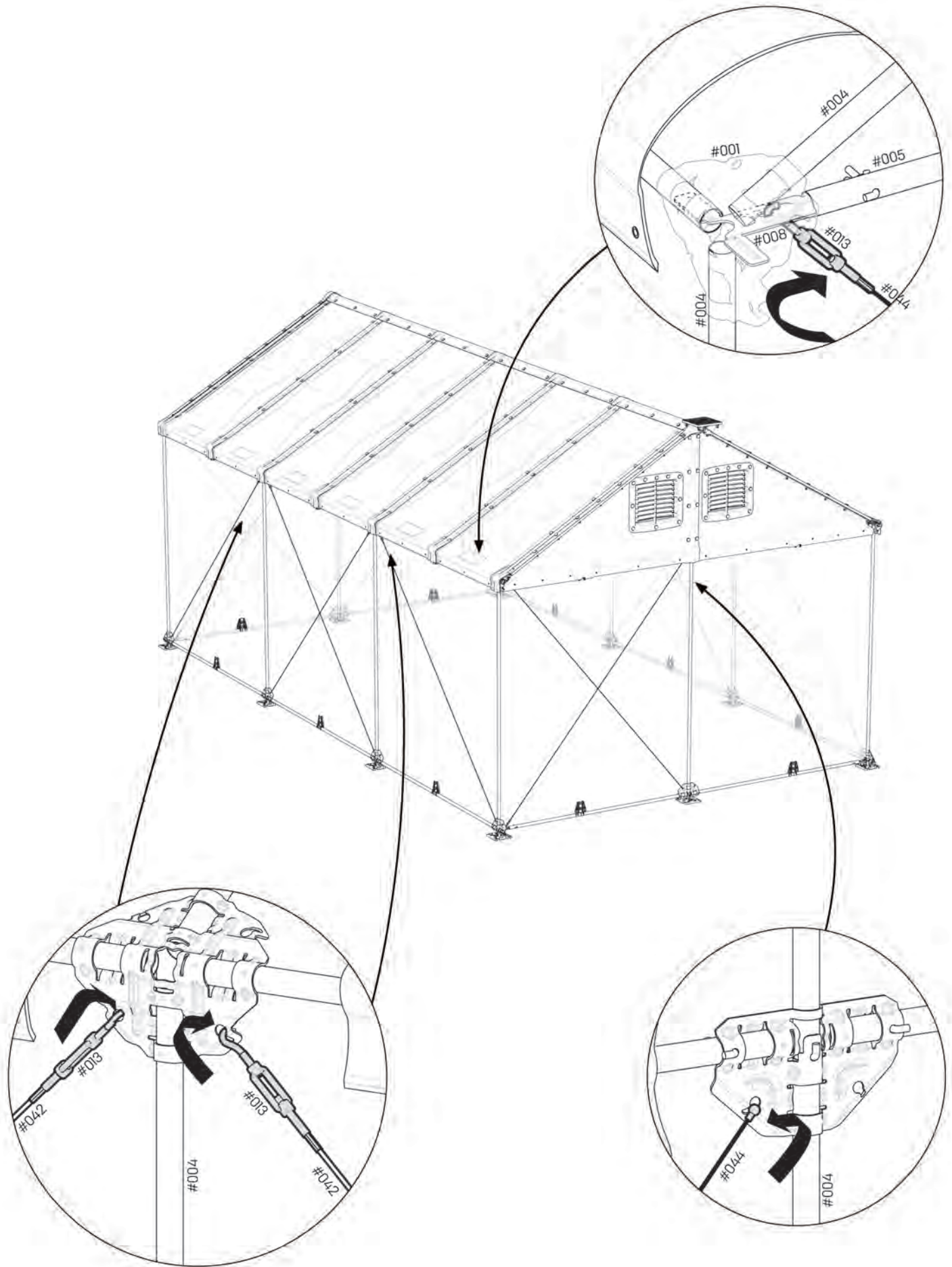
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i

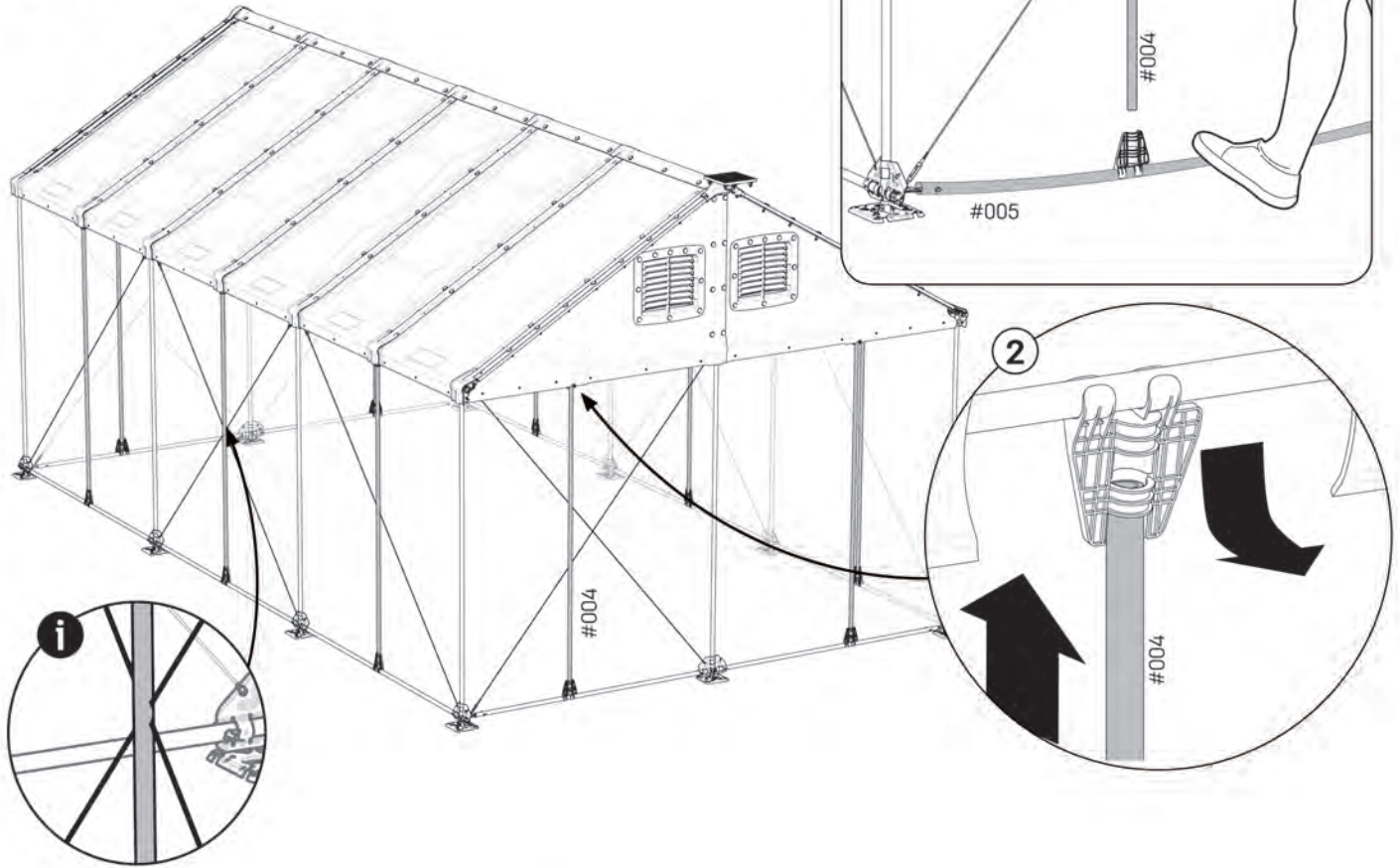


Do not tension fully, just reduce slack evenly across structure.

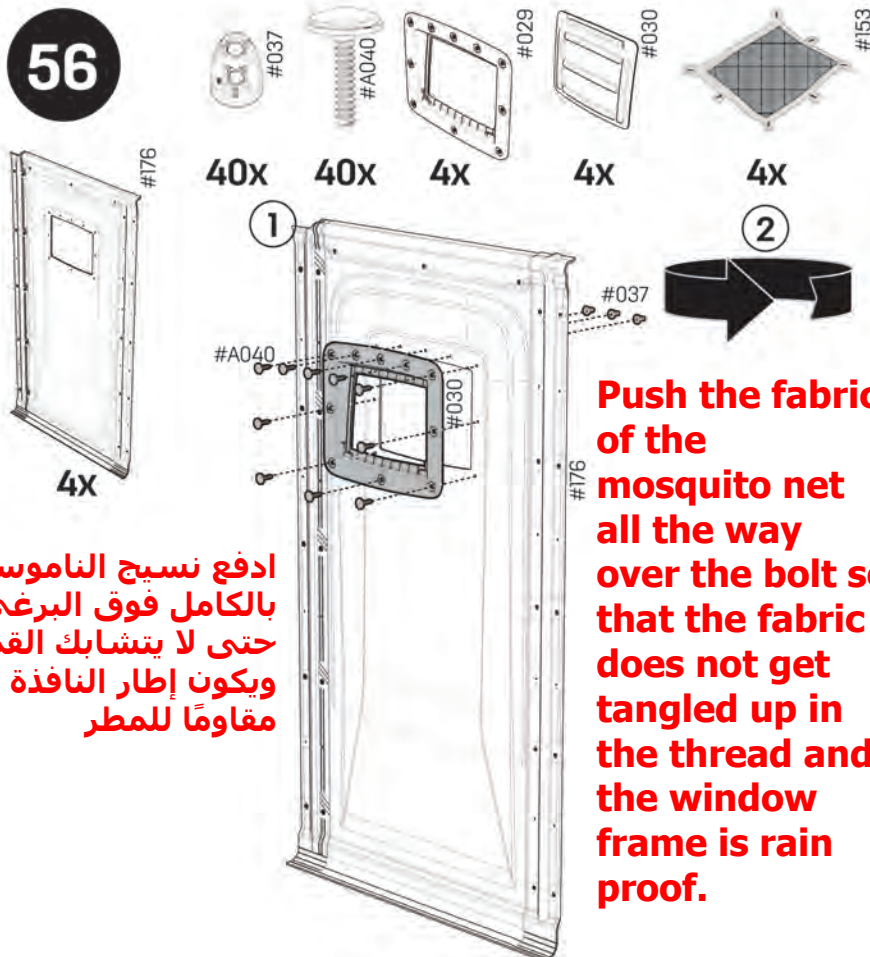


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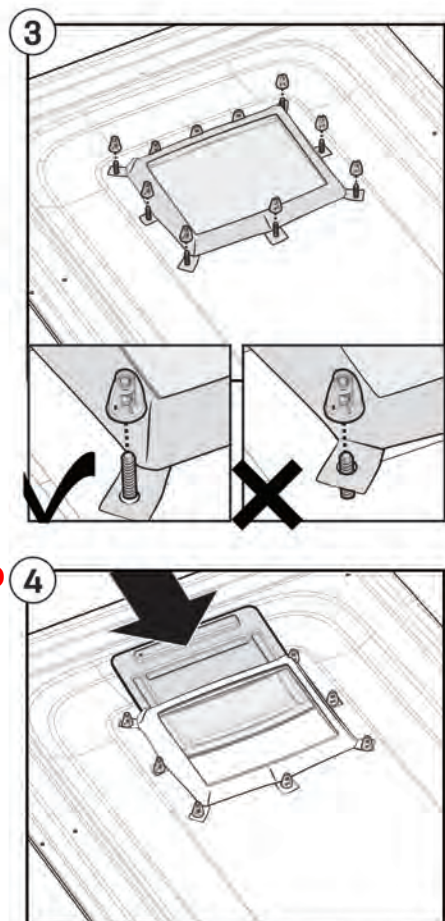
10X #004



56

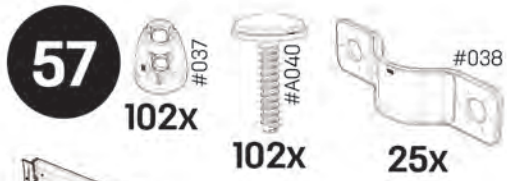


Push the fabric of the mosquito net all the way over the bolt so that the fabric does not get tangled up in the thread and the window frame is rain proof.

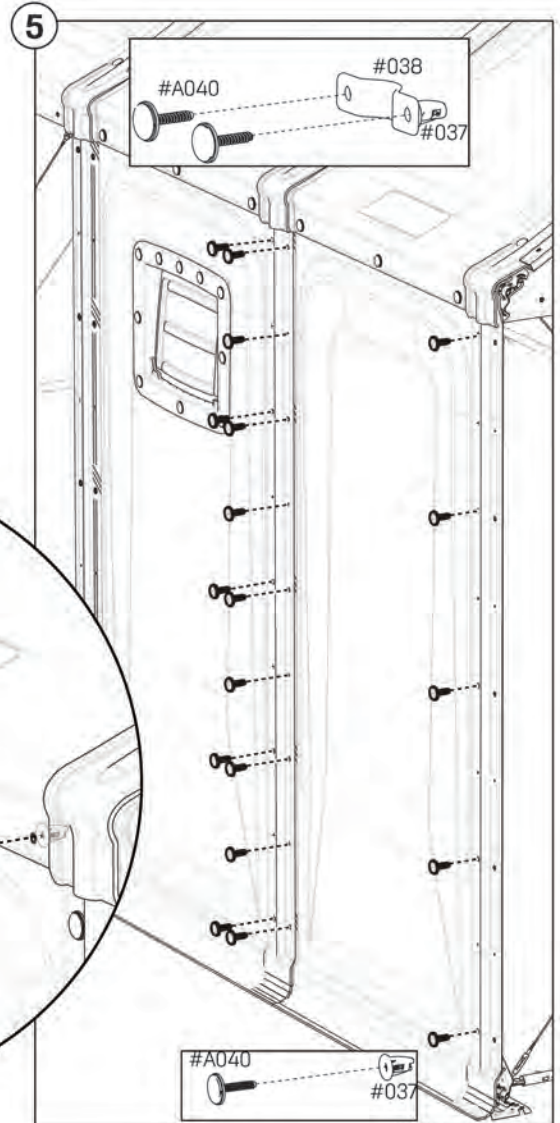
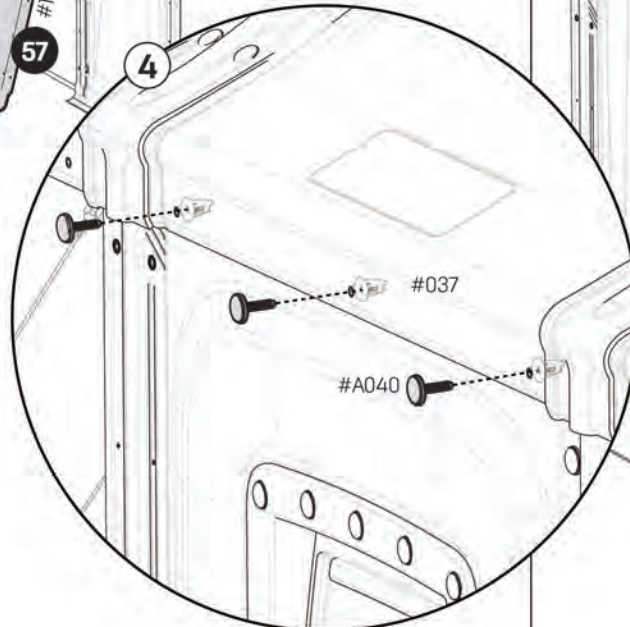
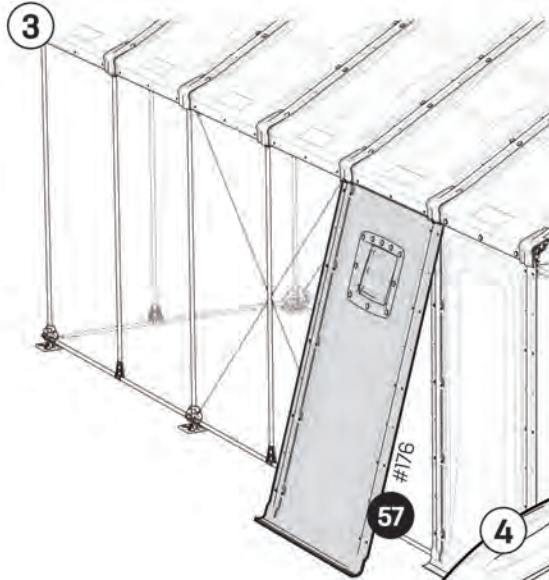
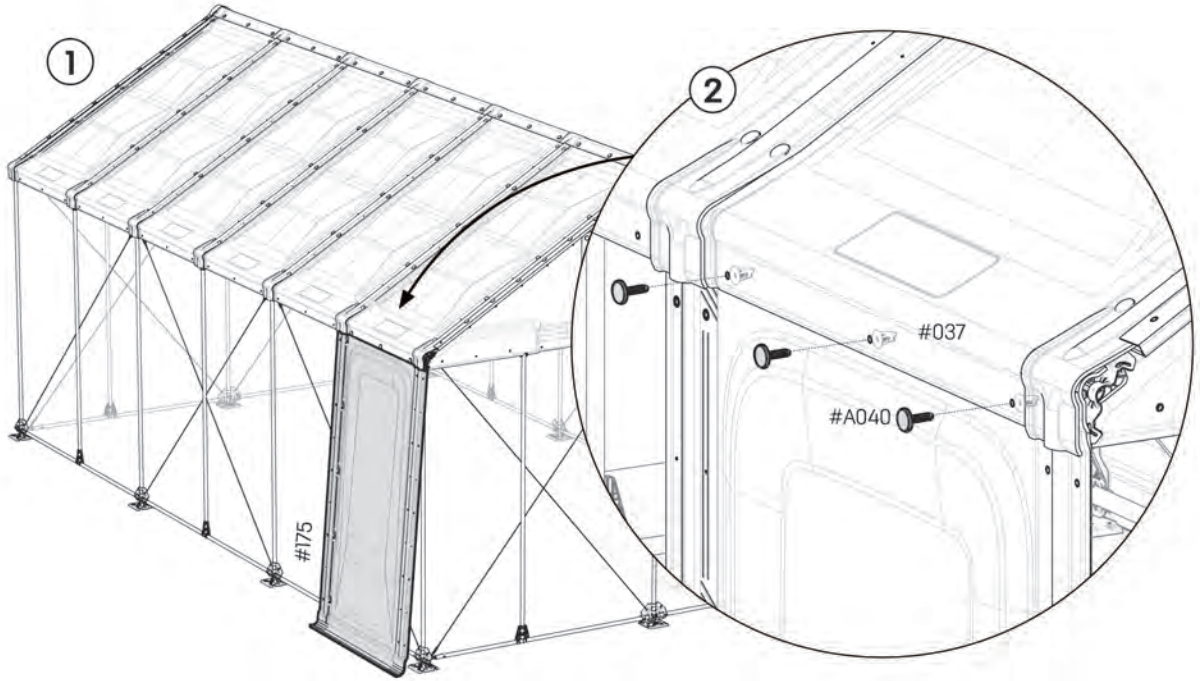
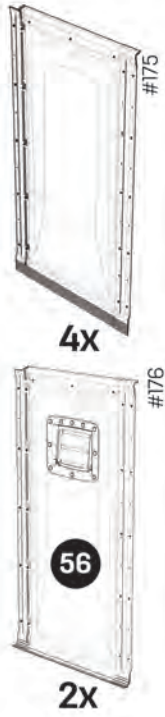


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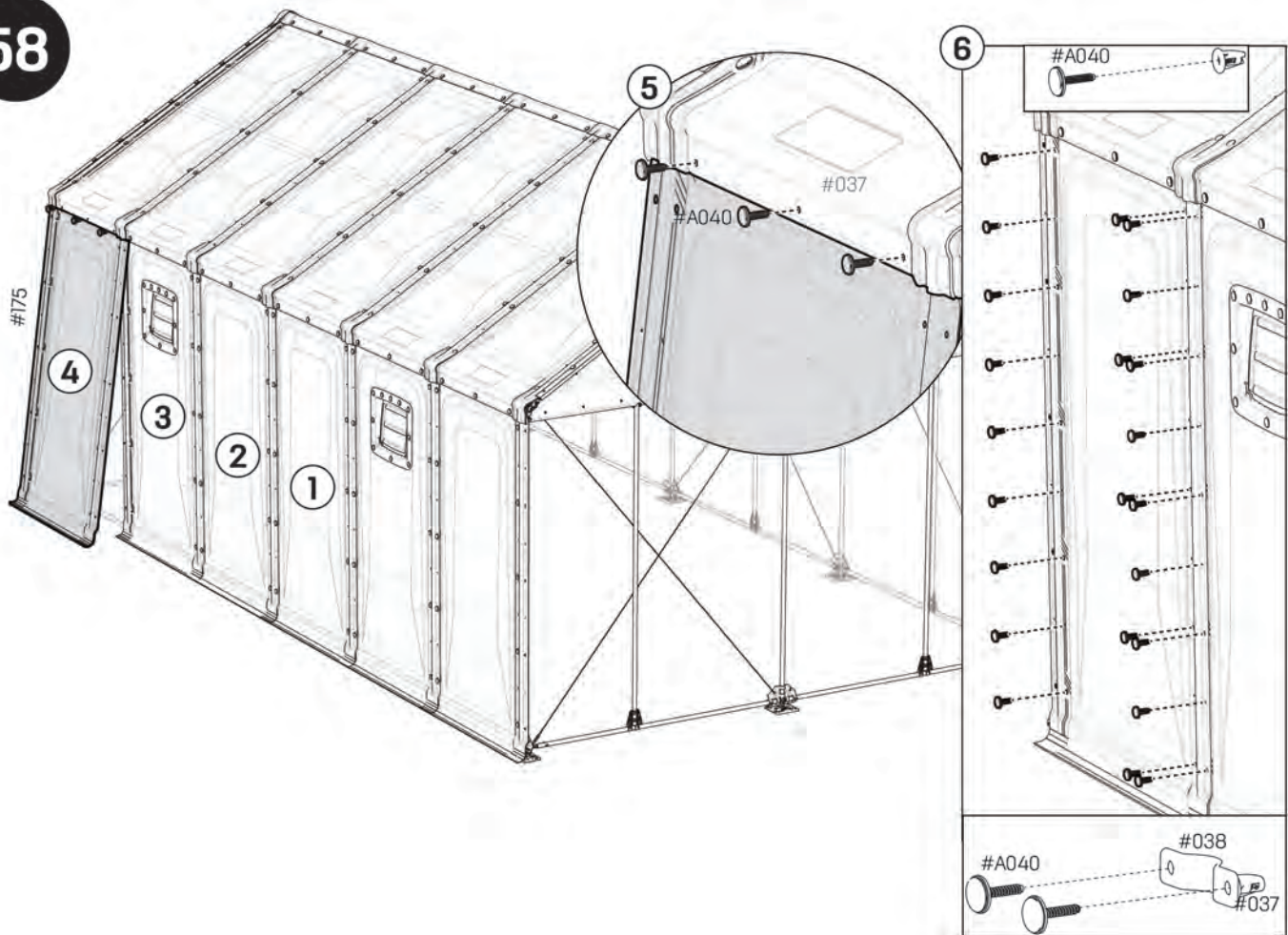
ادفع نسيج الناموسية
بالكامل فوق البرغي
حتى لا يتشابك القماش
ويكون إطار النافذة
مقاومًا للمطر



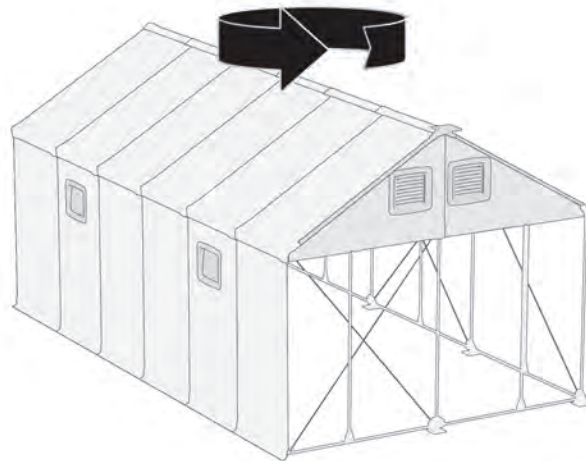
**Start wall panel
assembly from right to
left.** ابدأ تجميع لوحات الحائط
من اليمين إلى اليسار



58



59



60



#037



#A040



#038

102x

102x

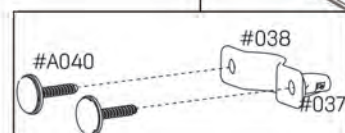
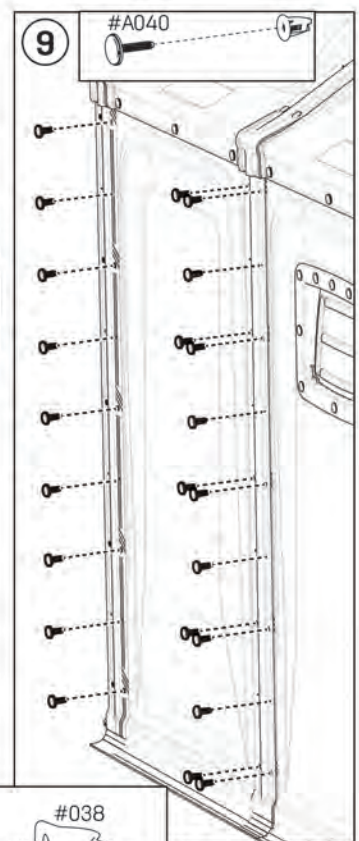
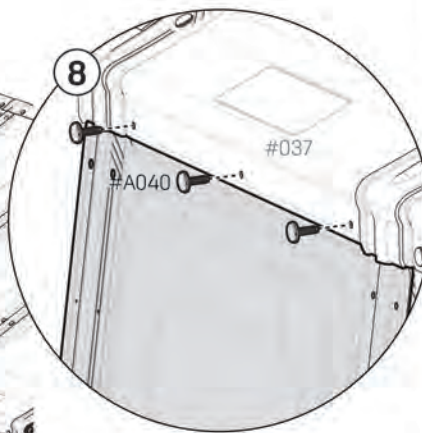
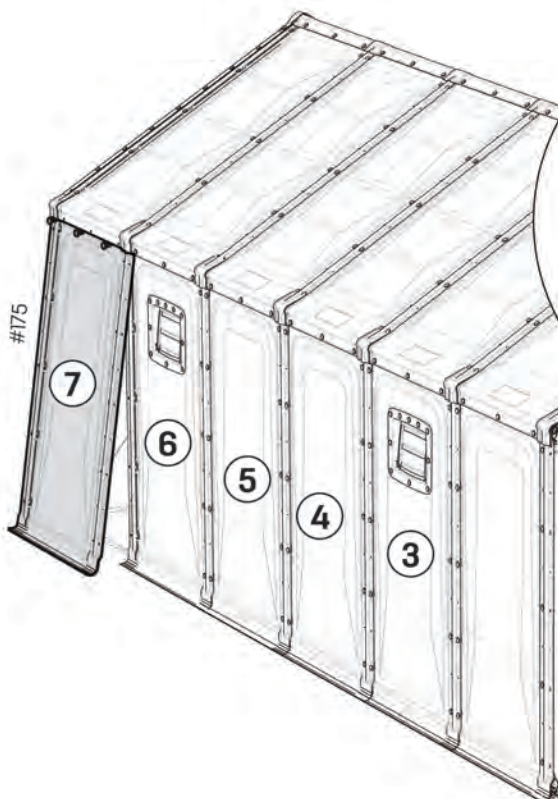
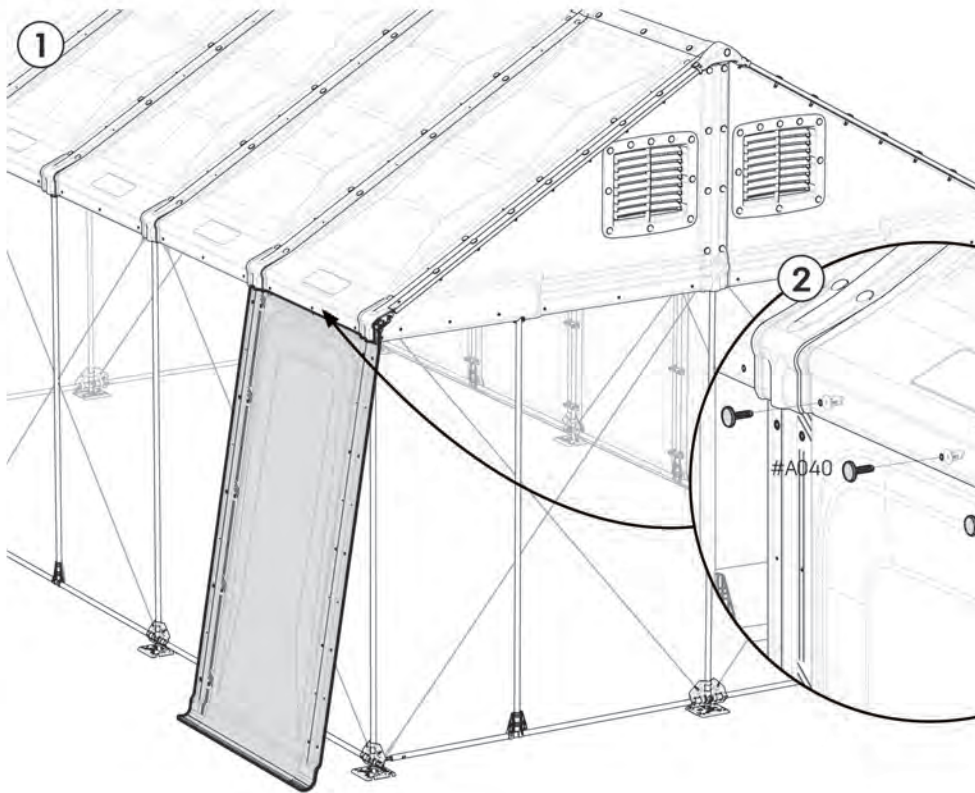
25x



4X

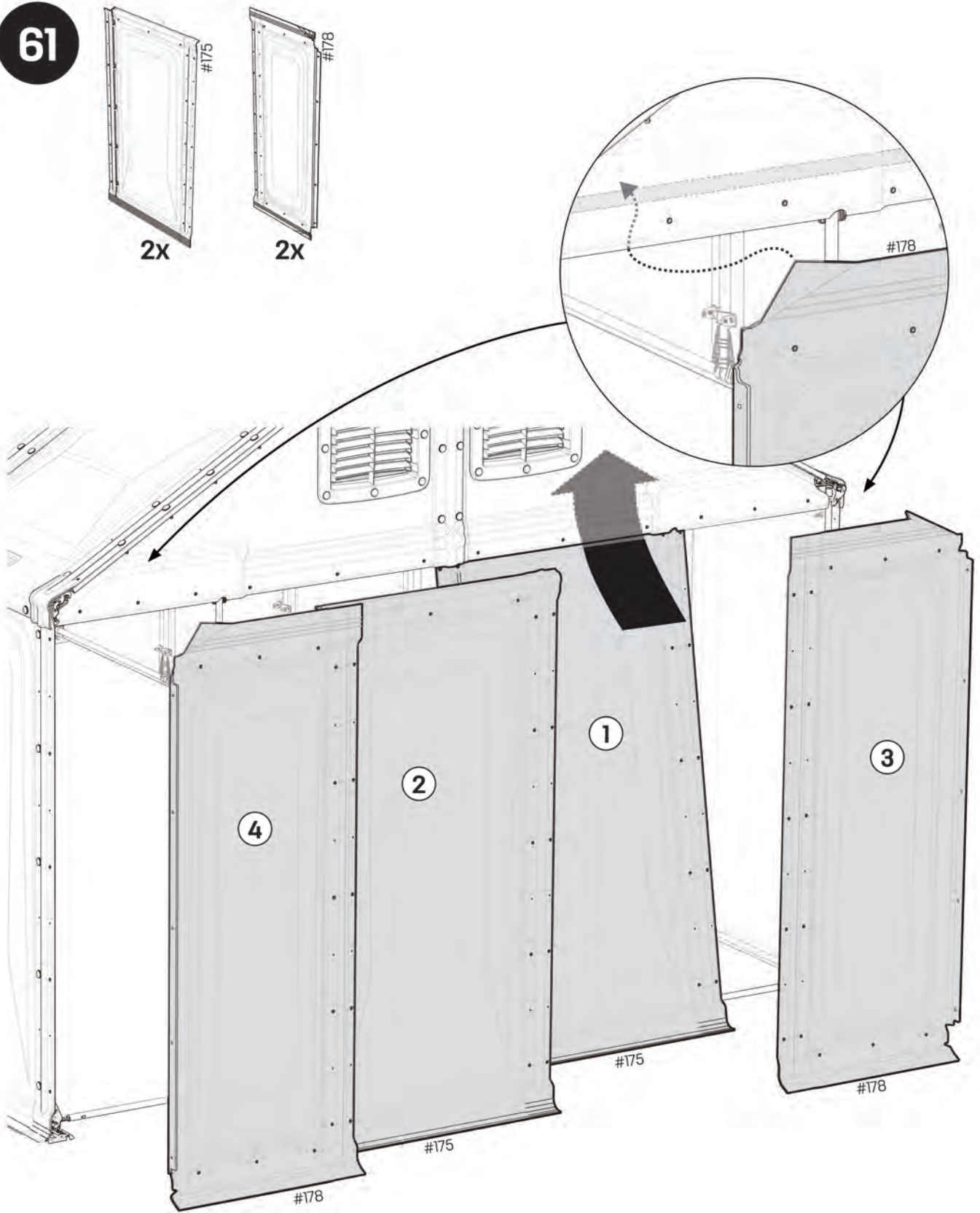


2X



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61



Check assembly order of panels

**تحقق من تجميع الألواح بالترتيب
الصحيح**

62



60x



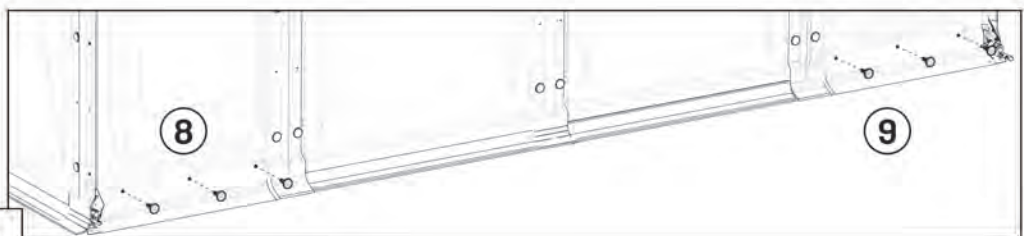
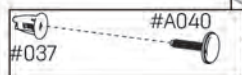
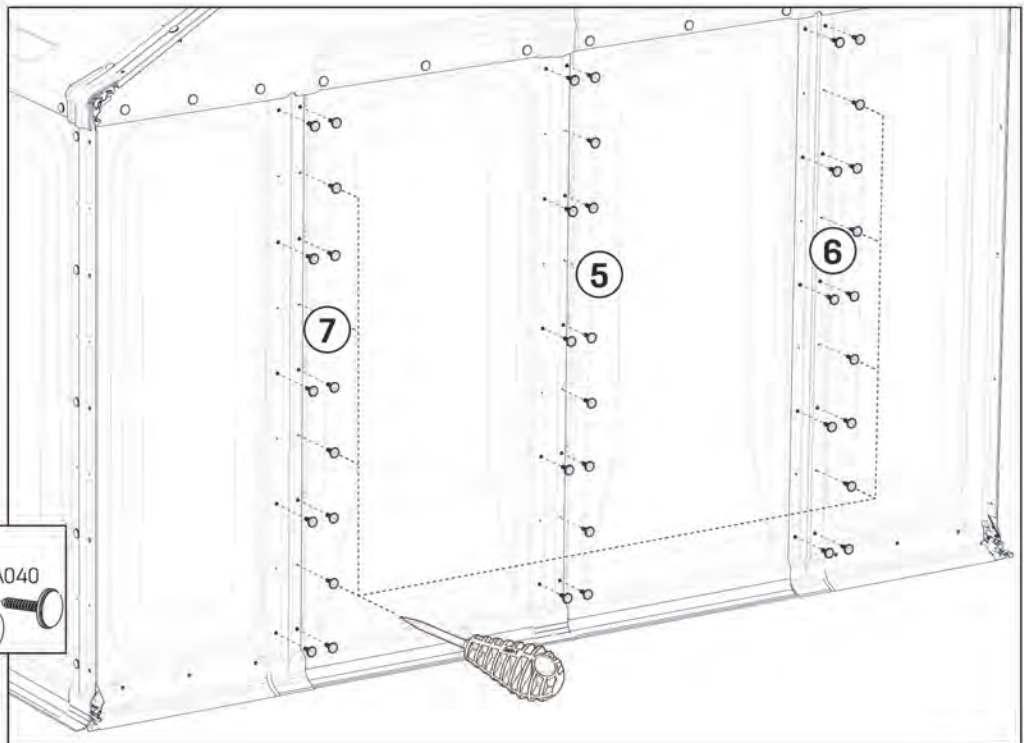
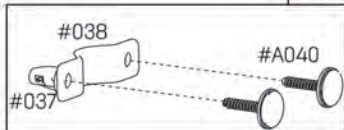
60x



15x



1x



63



20x



20x



2x

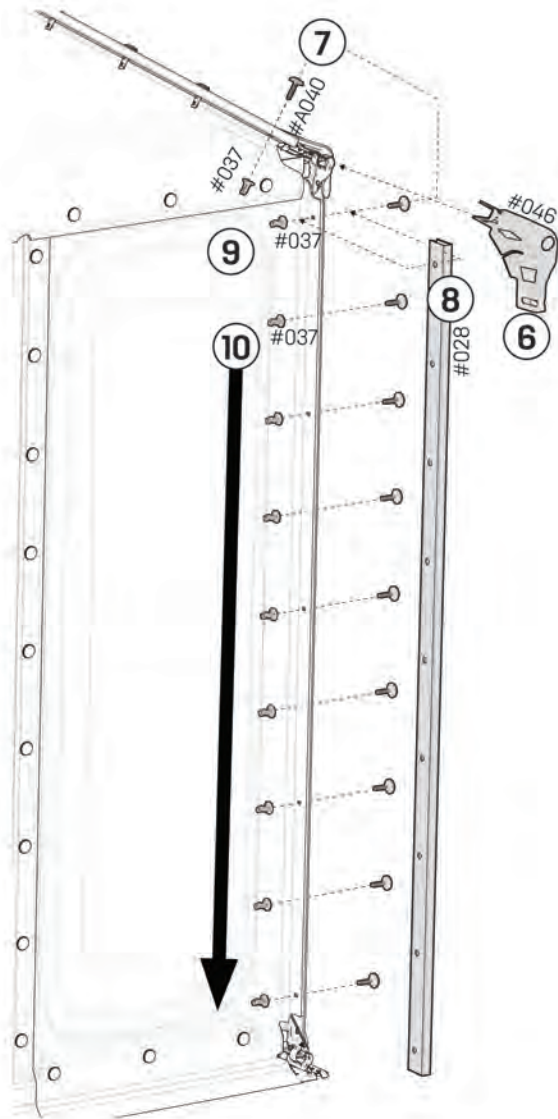
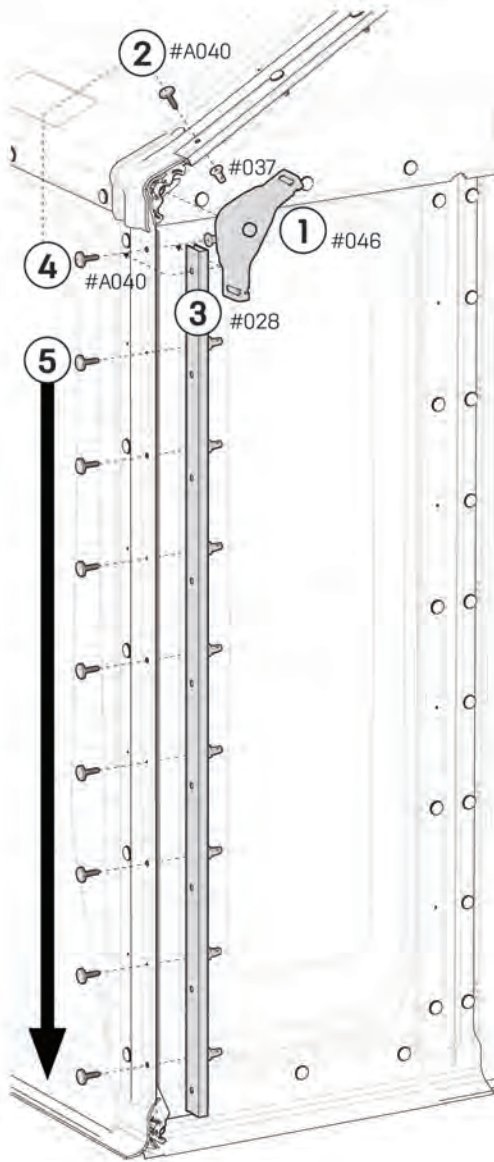


1x

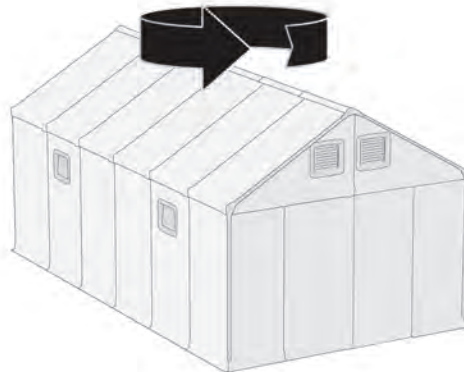


#028

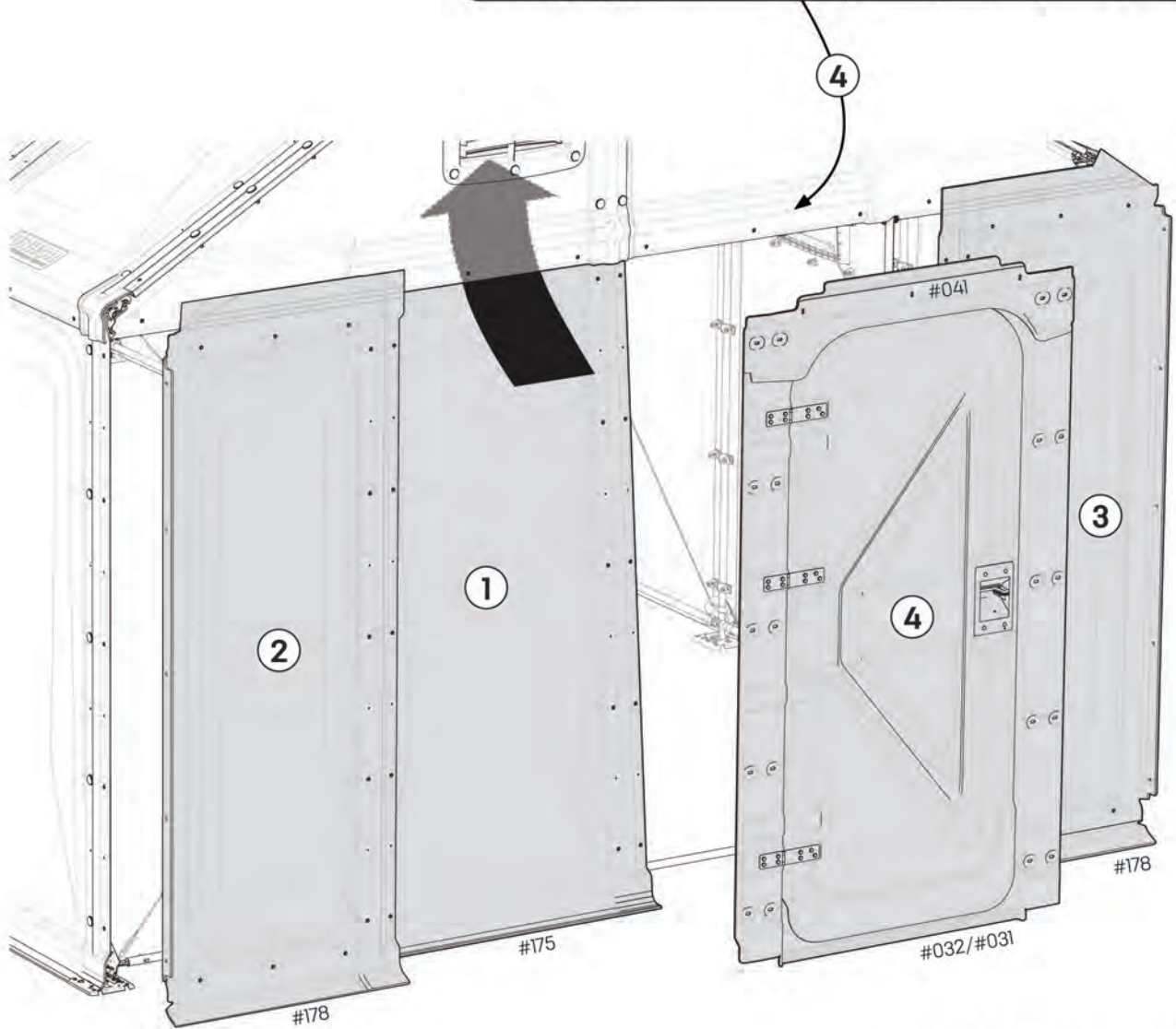
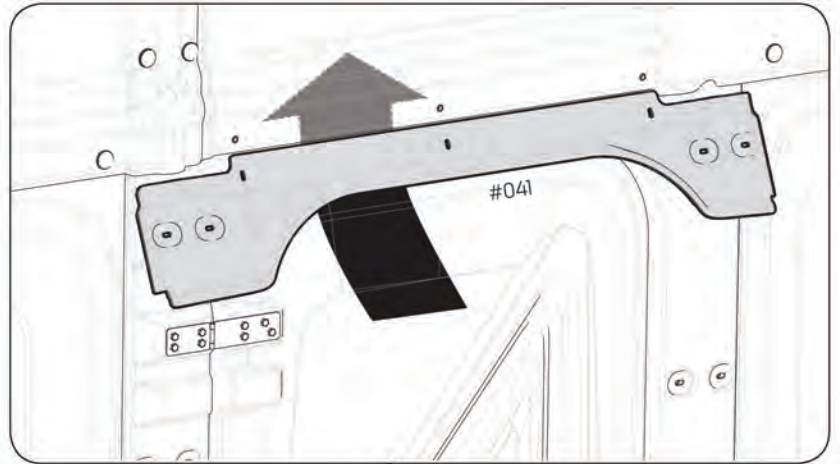
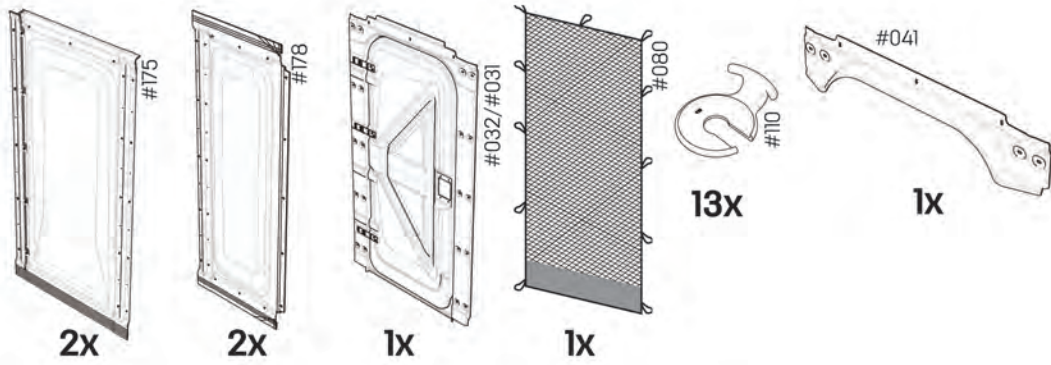
2x



64



65



66



52x



52x



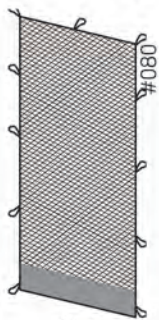
15x



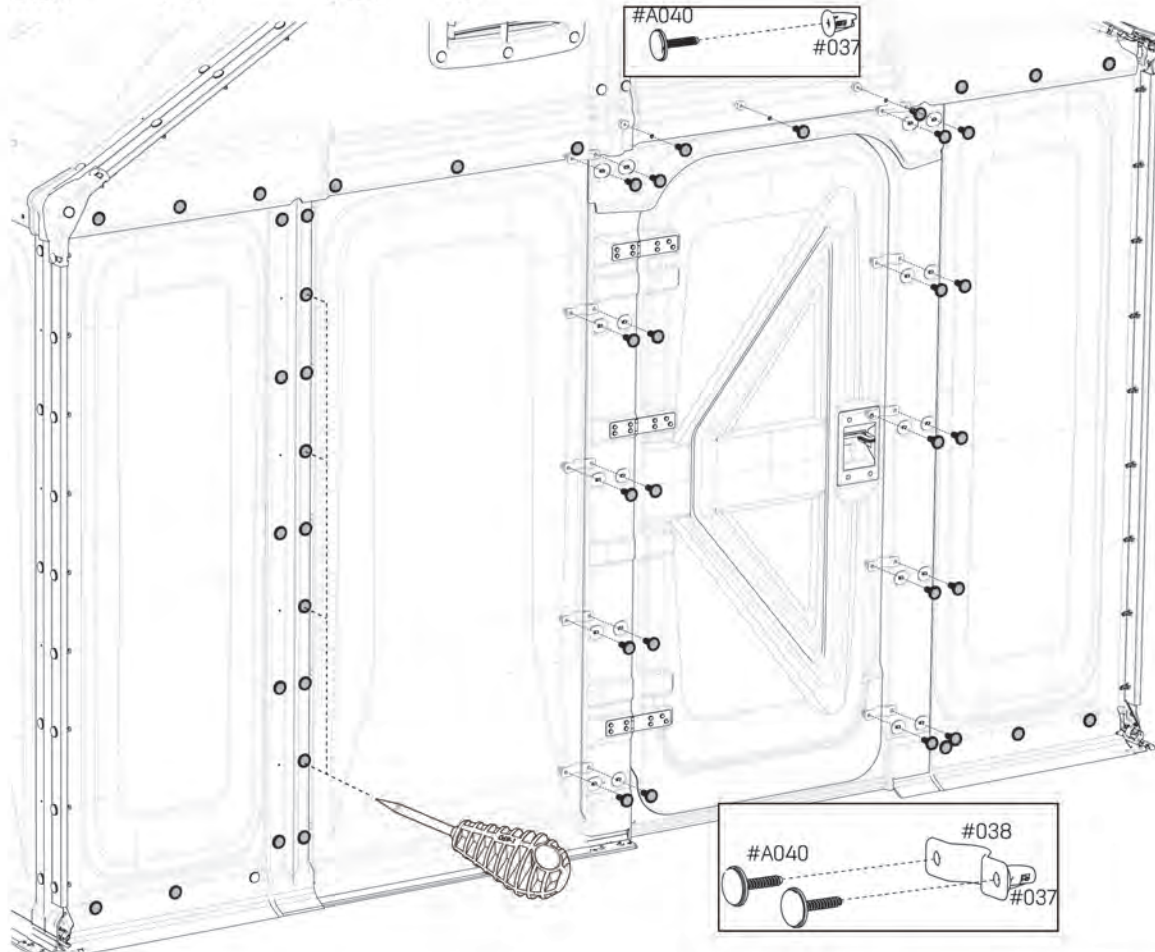
13x



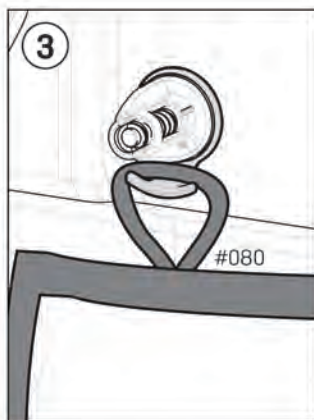
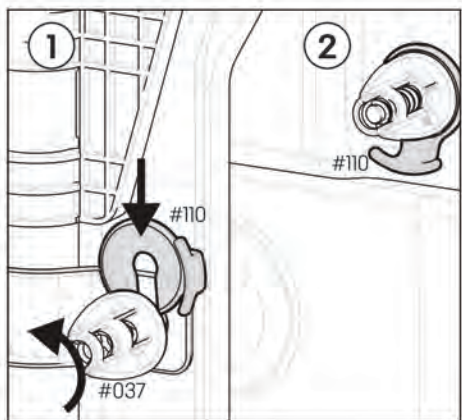
1x



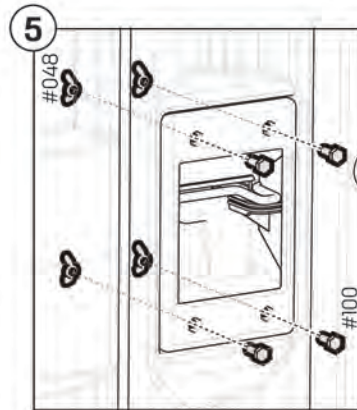
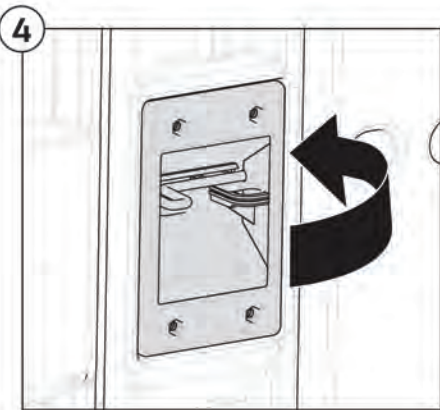
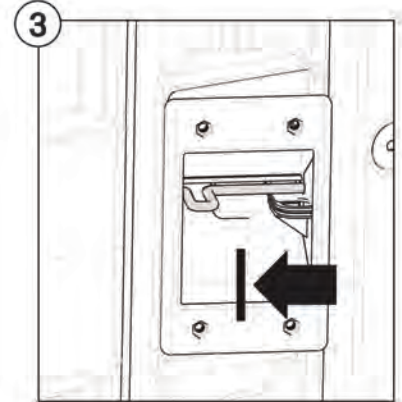
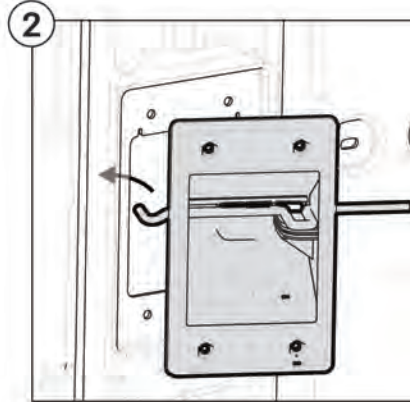
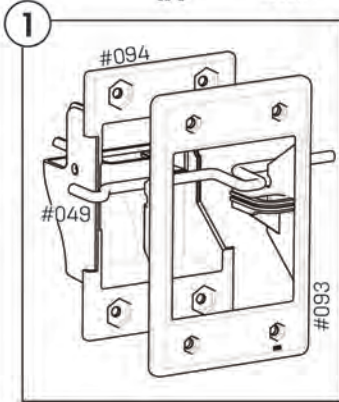
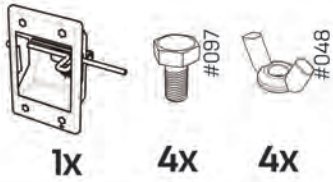
1x



Inside shelter

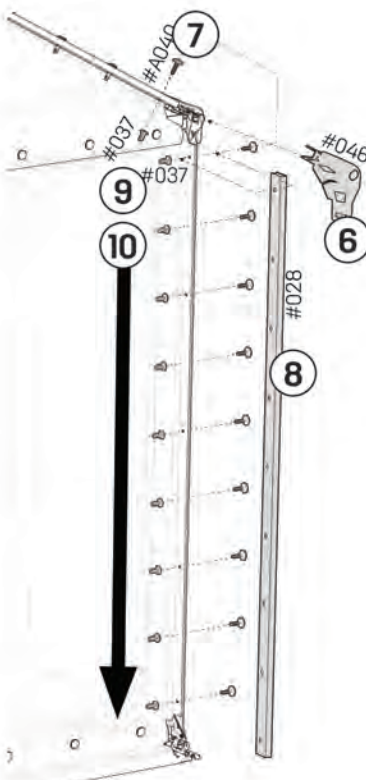
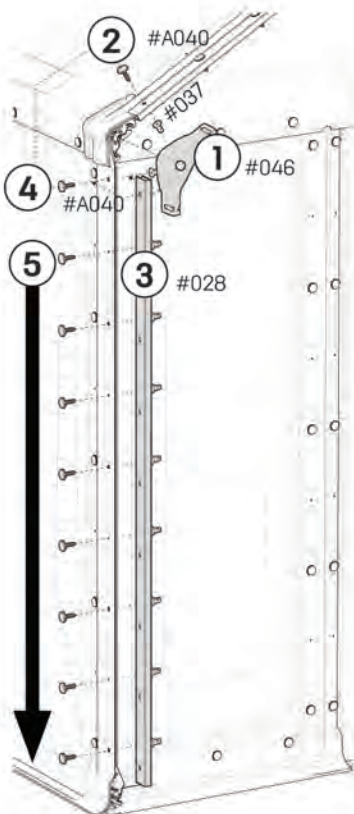
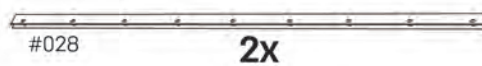


67



68

Repeat step 63

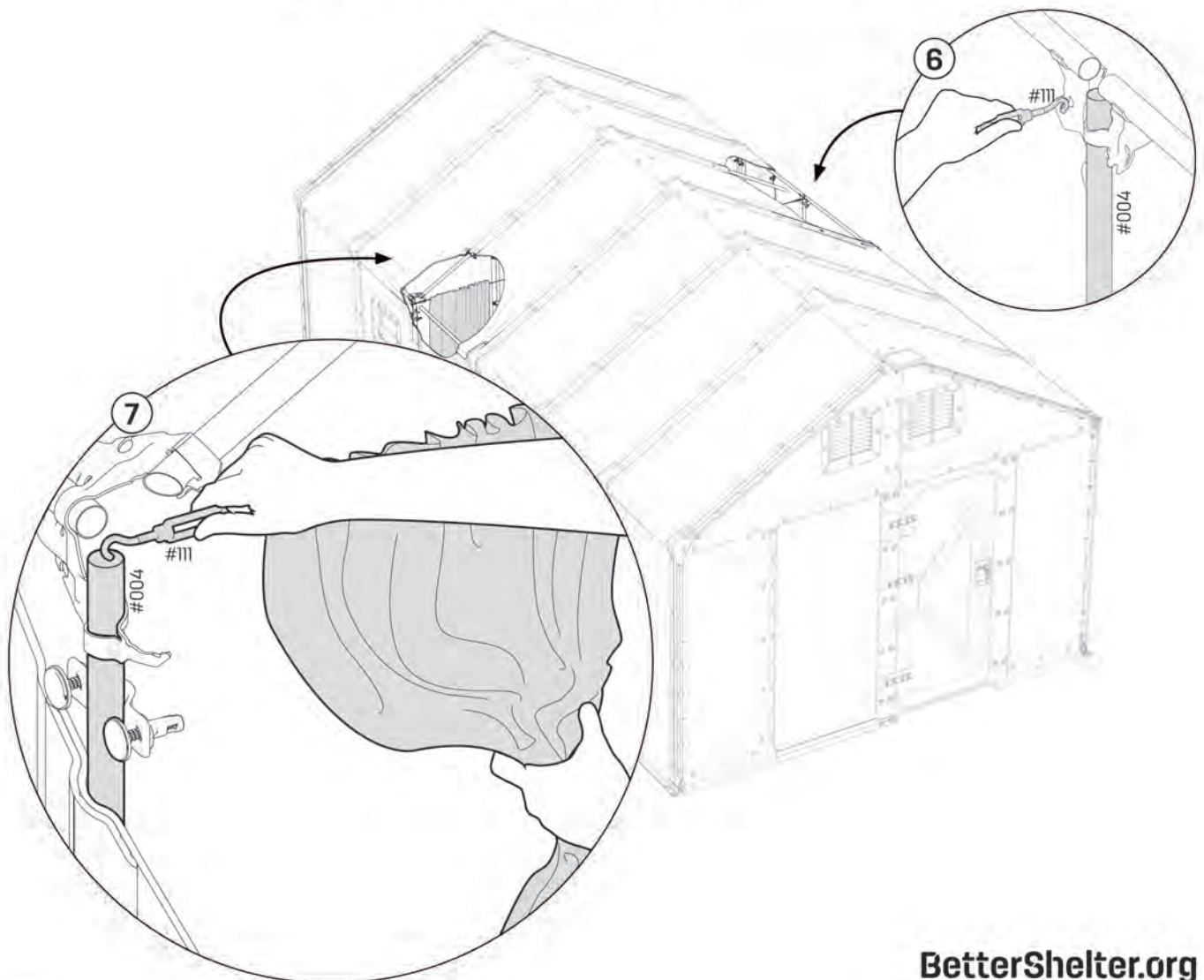
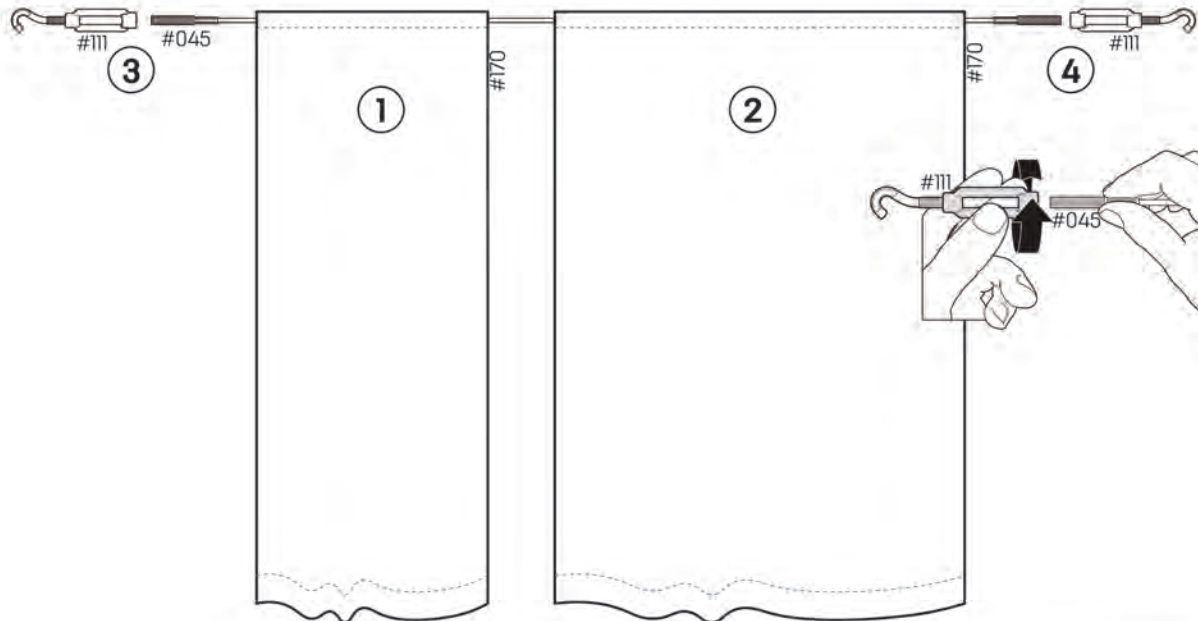


69

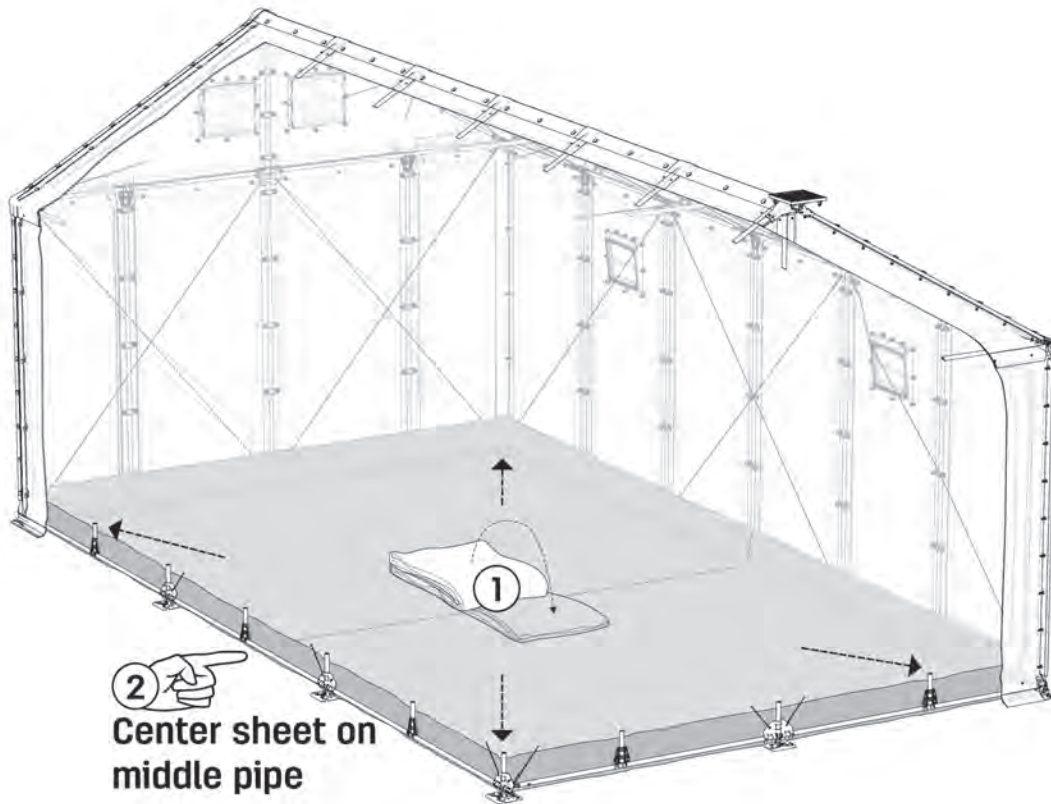
#111
2x

1x
#045

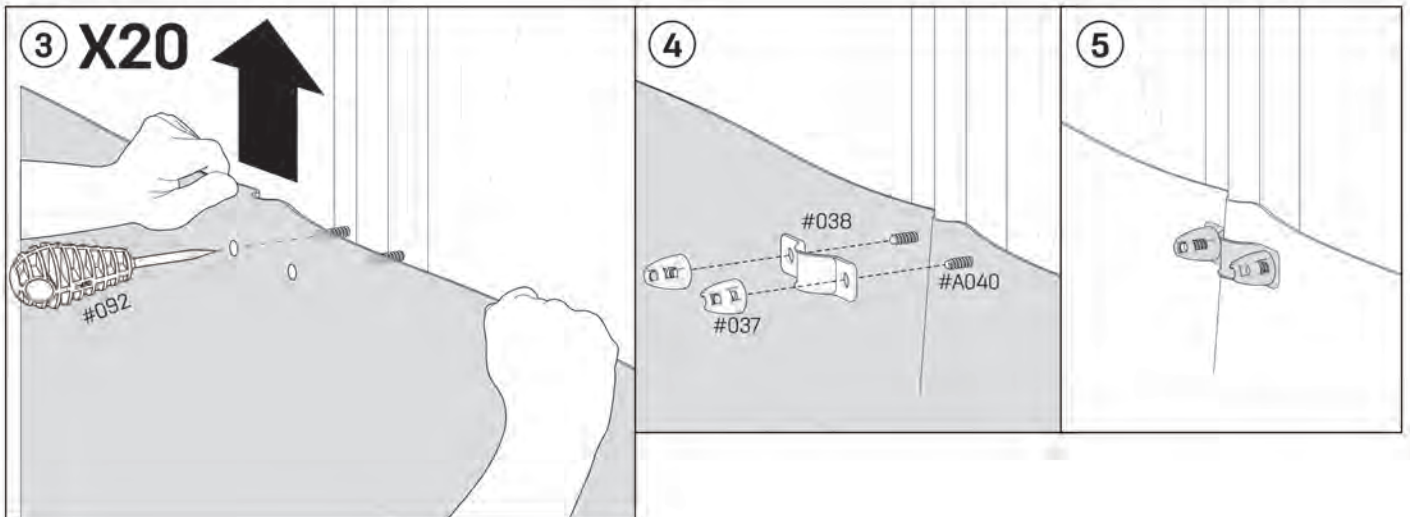
#170
1x 1x
1x

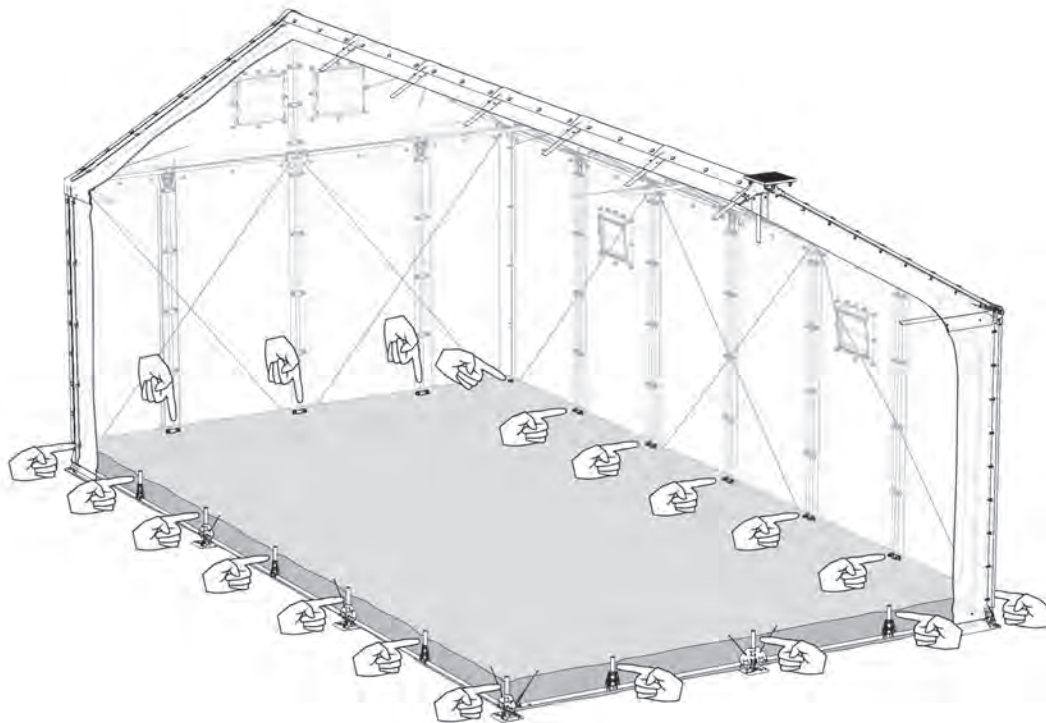
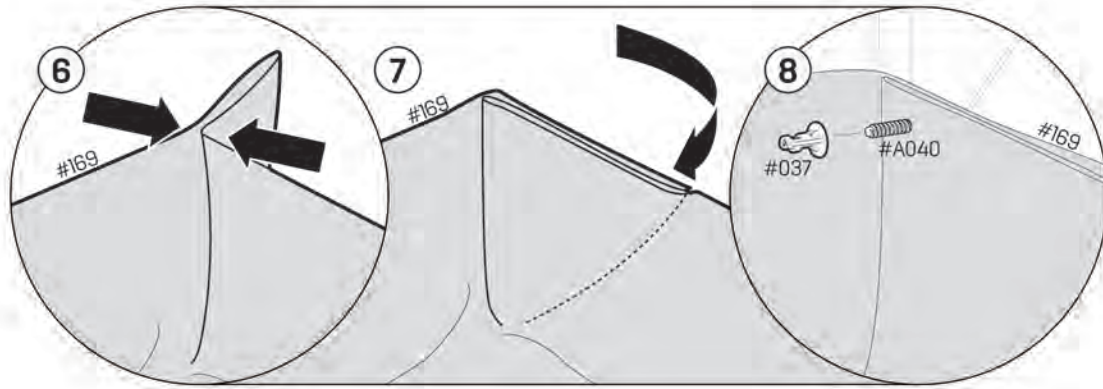


70

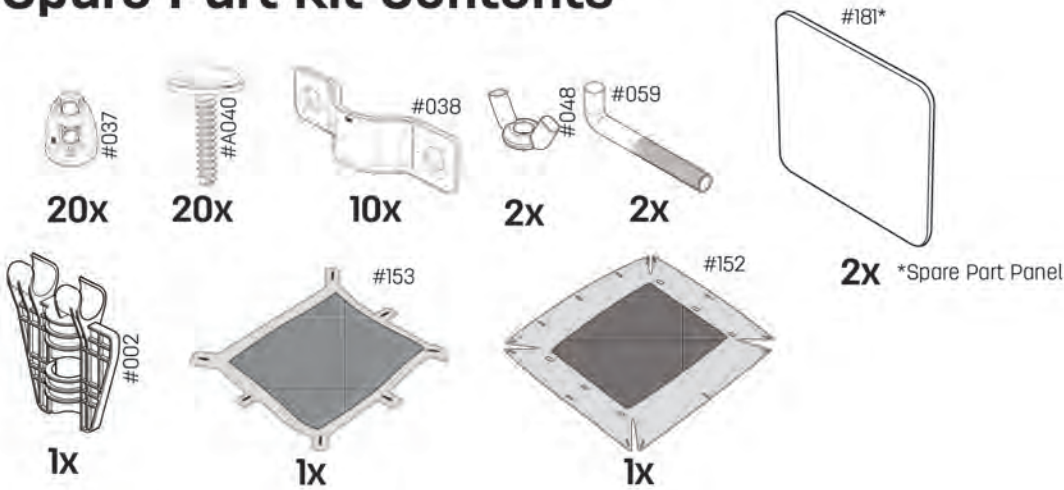


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Spare Part Kit Contents

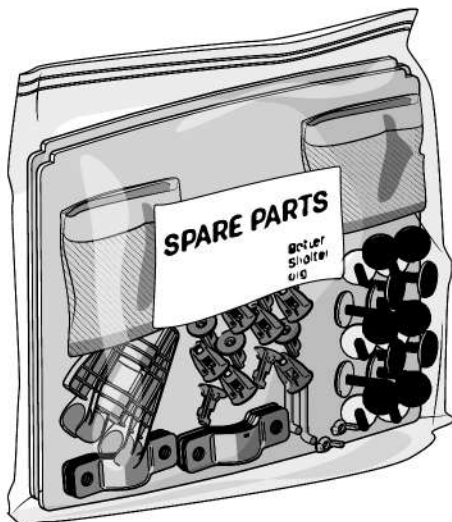
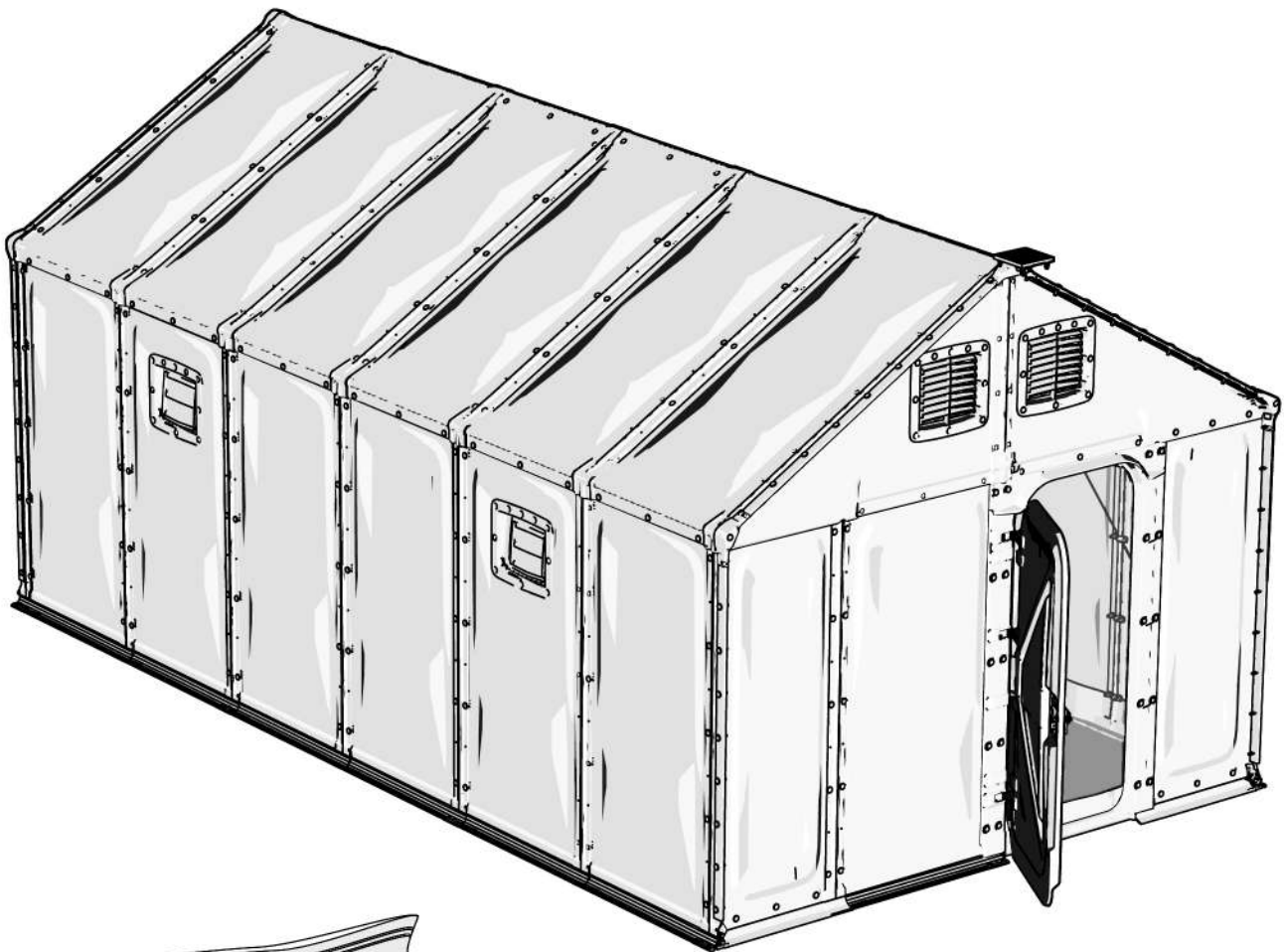


Better Shelter Maintenance Manual

(225)

Manual de Mantenimiento
Manuel de Maintenance
Wartungshandbuch

維修手冊
دليل الصيانة



**Better
Shelter
.org**

Frequency of use

Frequency of using the document – Monthly

Disposition

This document starts with displaying the spare parts kit content and identification of parts. If any part is broken or missing, please replace by original parts. If part are no longer present, contact the shelter provider.

Disclaimer

This document does not consider faulty setups, nor does it solve issues that occur to the shelter due to weather influences (wind, heavy rains, land slides, unstable soil), animals or improper use.

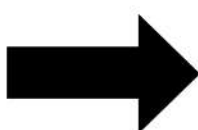
This document is aimed to be used by the user/inhabitant of the shelter.

Legend

Not Ok



Action



OK

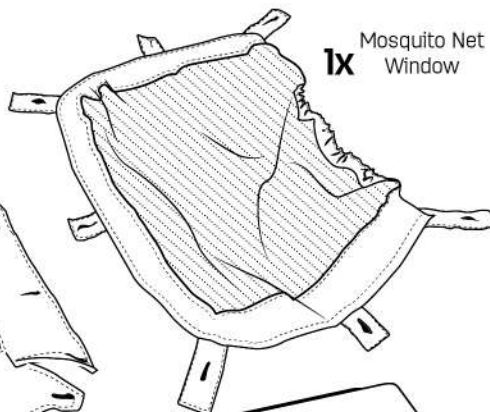
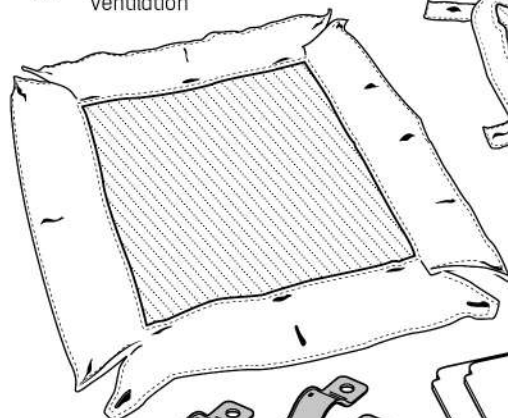


Spare Part Kit

Contents

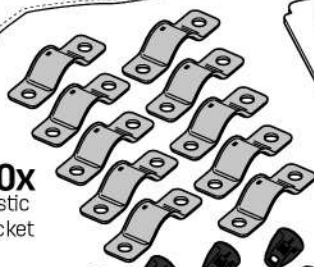


1x Mosquito net Ventilation



1x Mosquito Net Window

10x Plastic Bracket



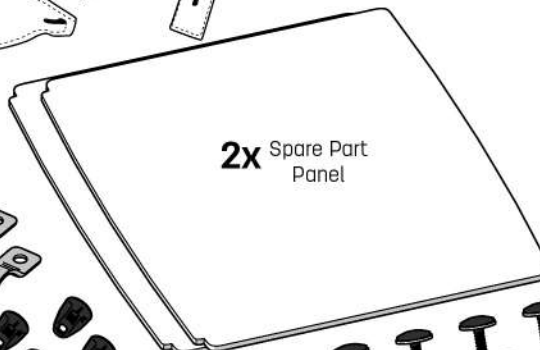
20x Plastic Nut



1x Plastic Joint



2x Spare Part Panel

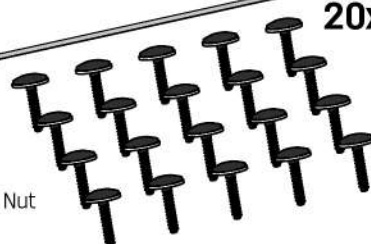


2x Wing Nut



2x L-Bolt

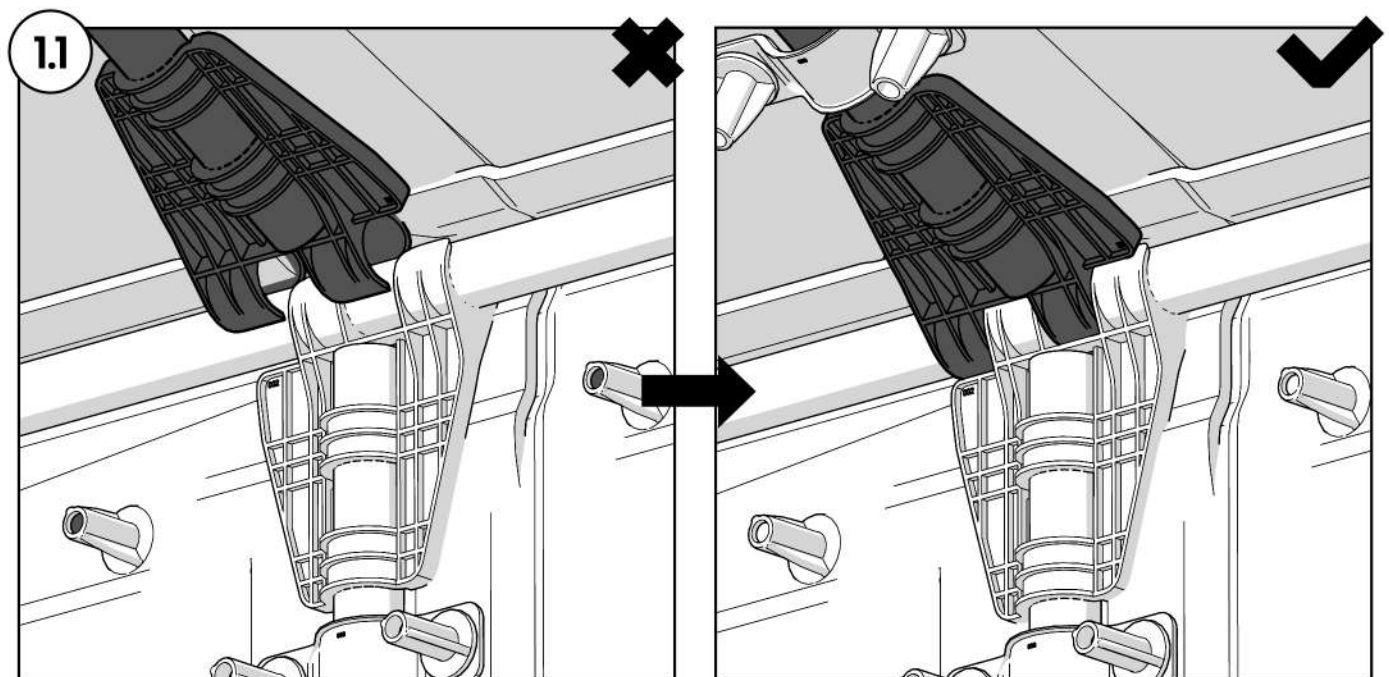
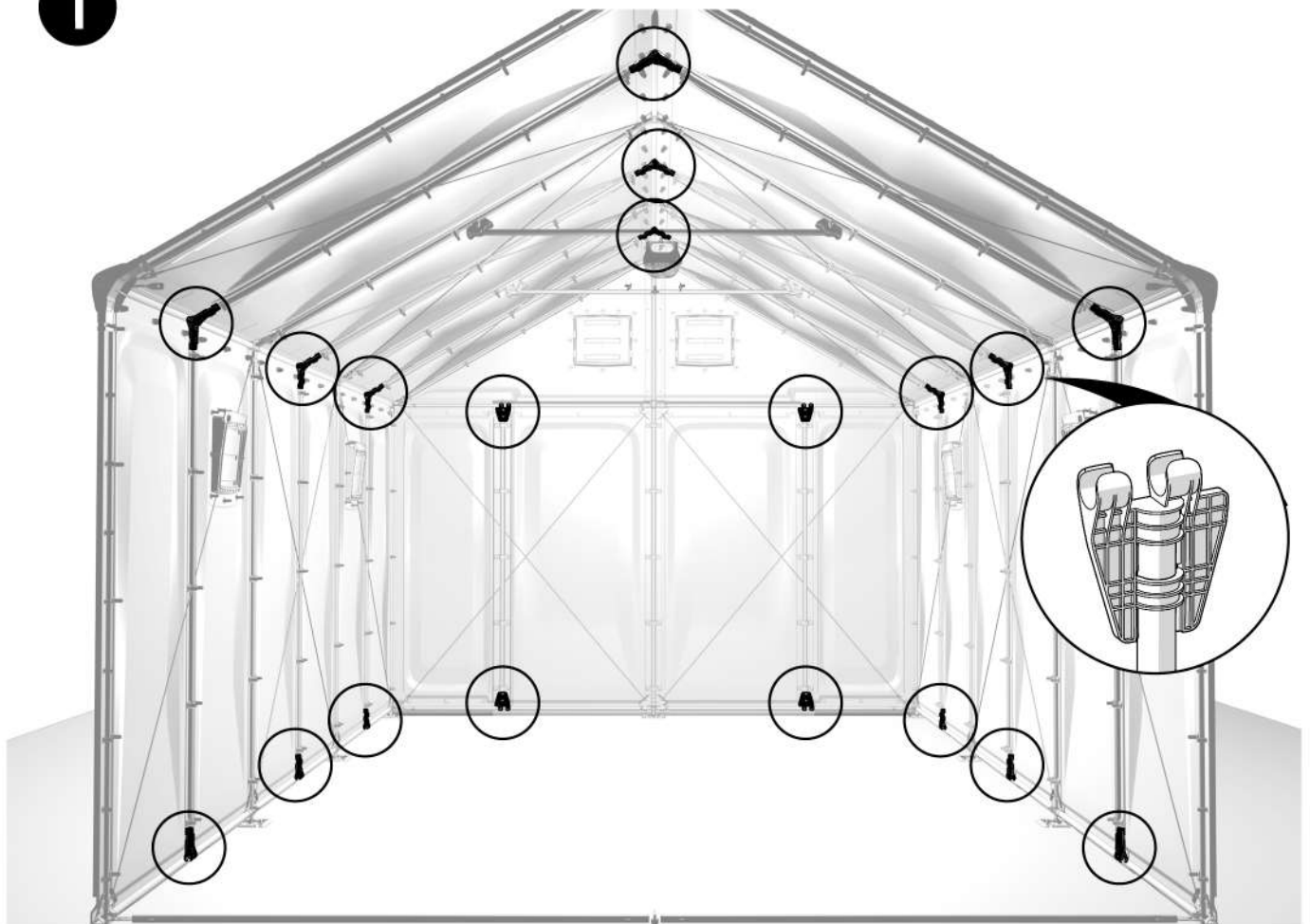
20x Plastic Bolt & Gasket

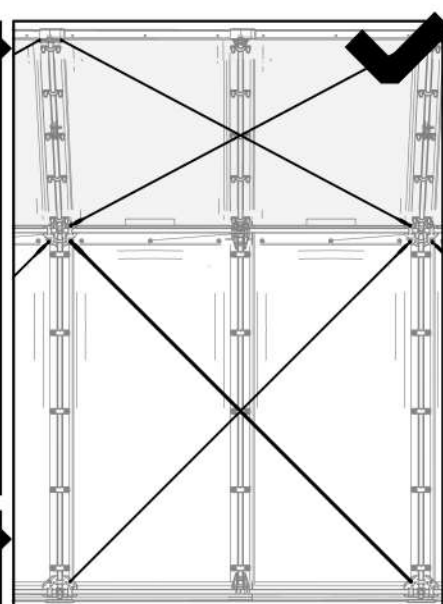
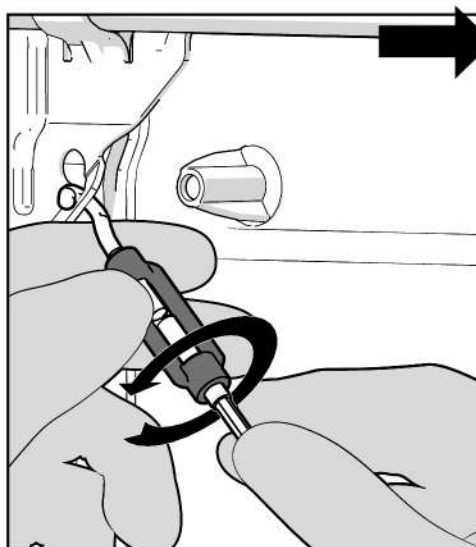
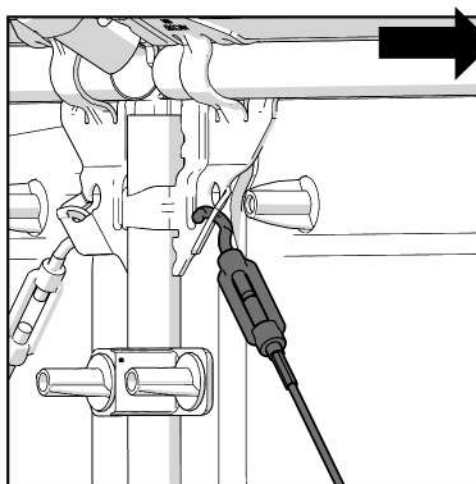
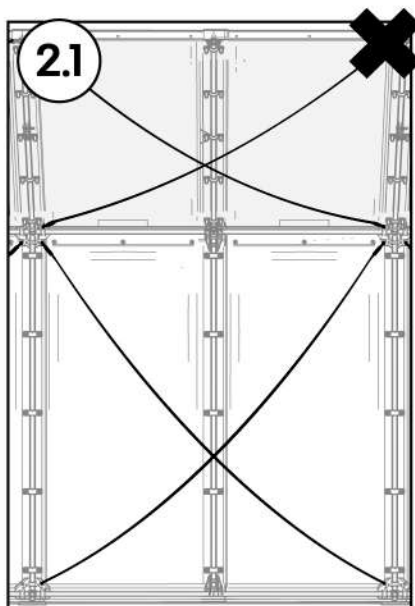
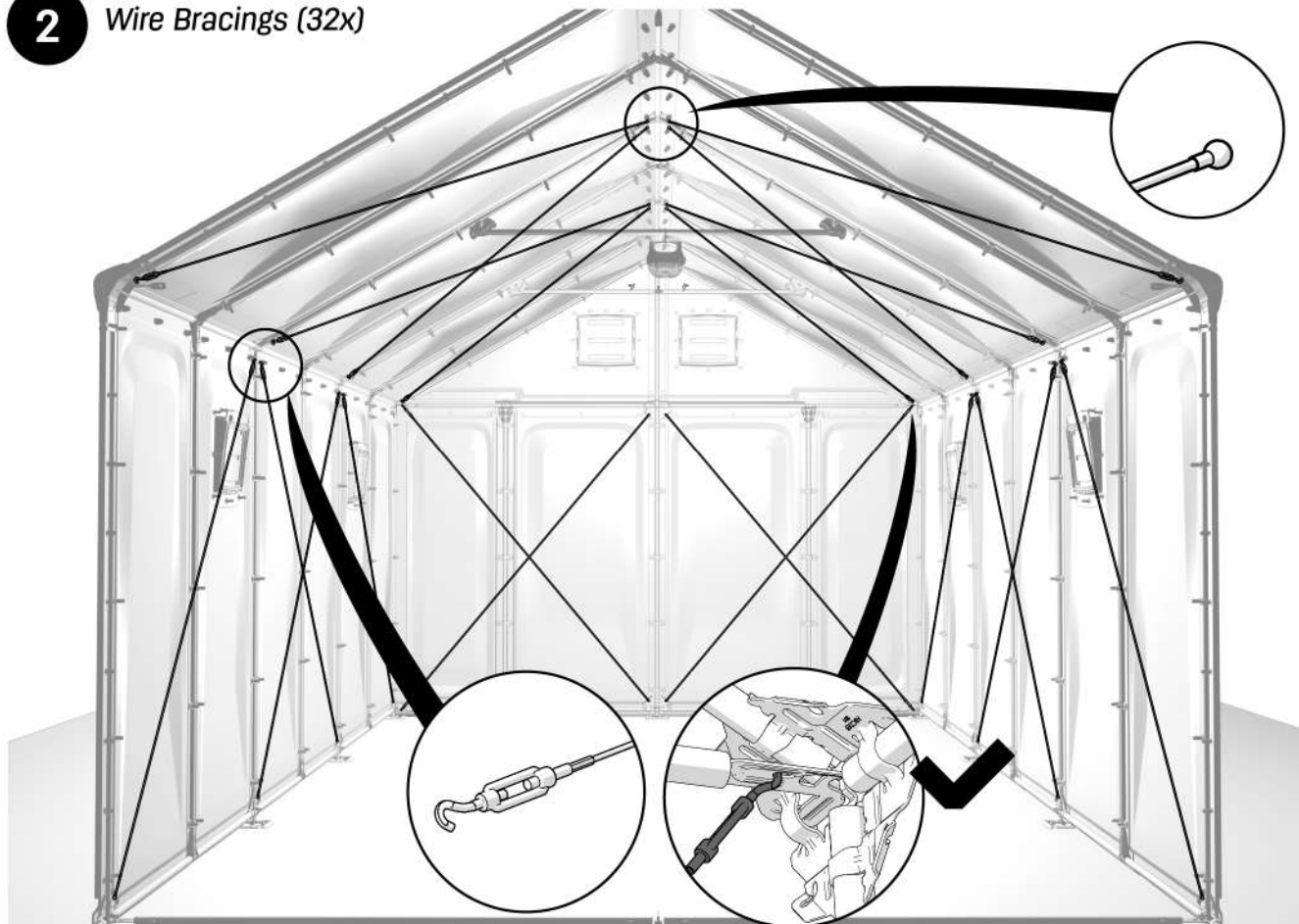


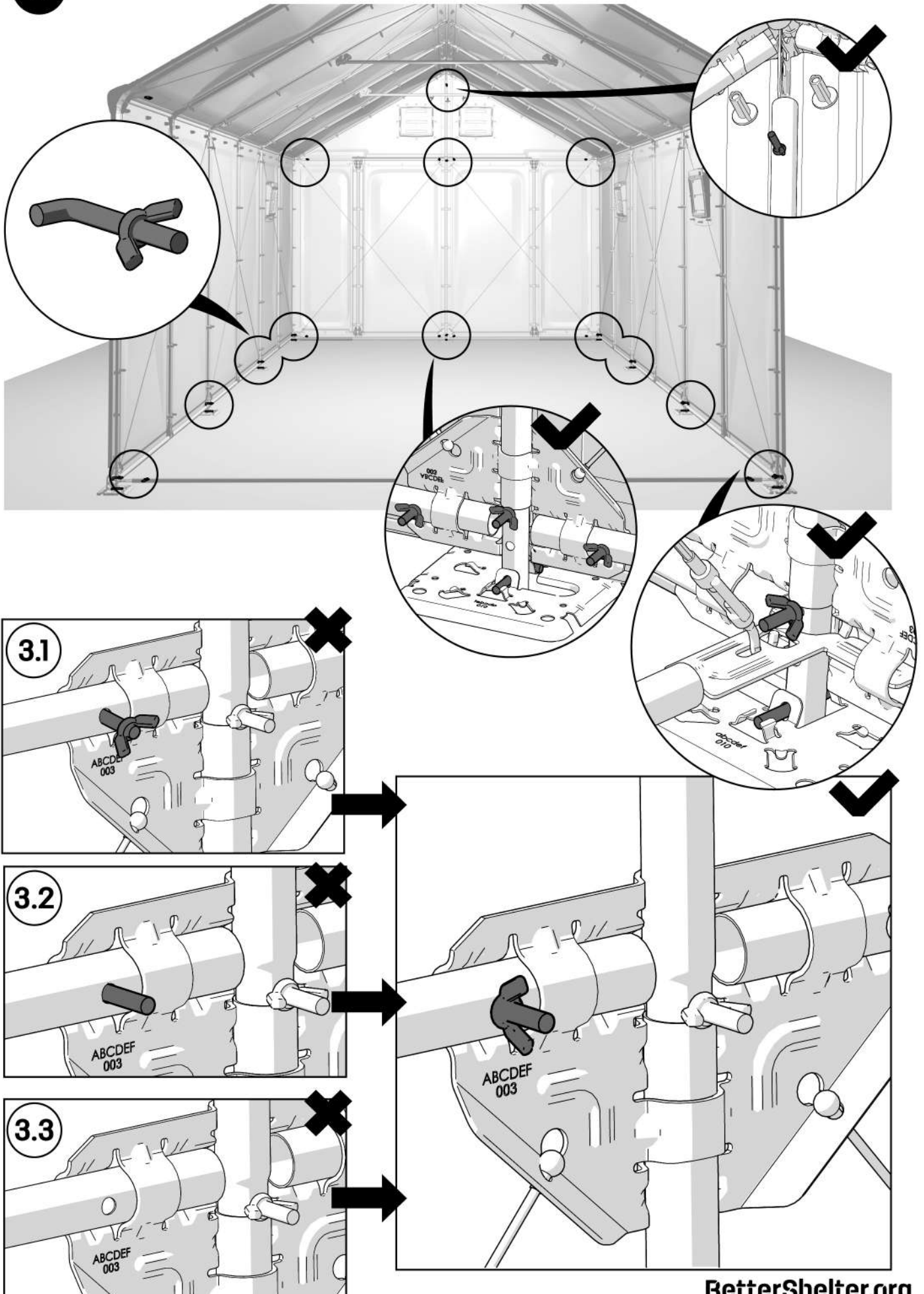
Maintenance Routine

1

Plastic joint attached to horizontal pipes of wall and roof (32x).

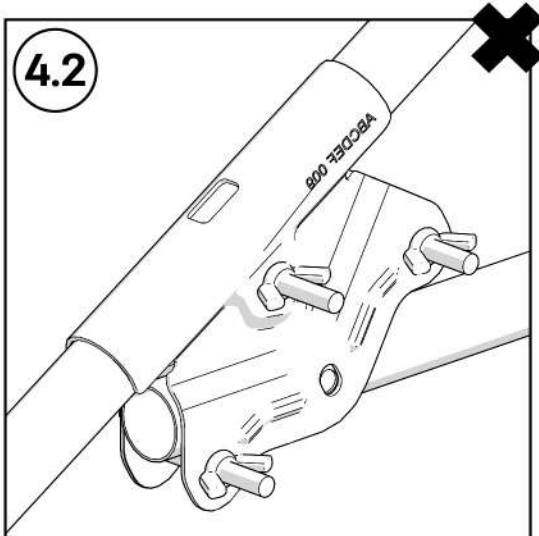
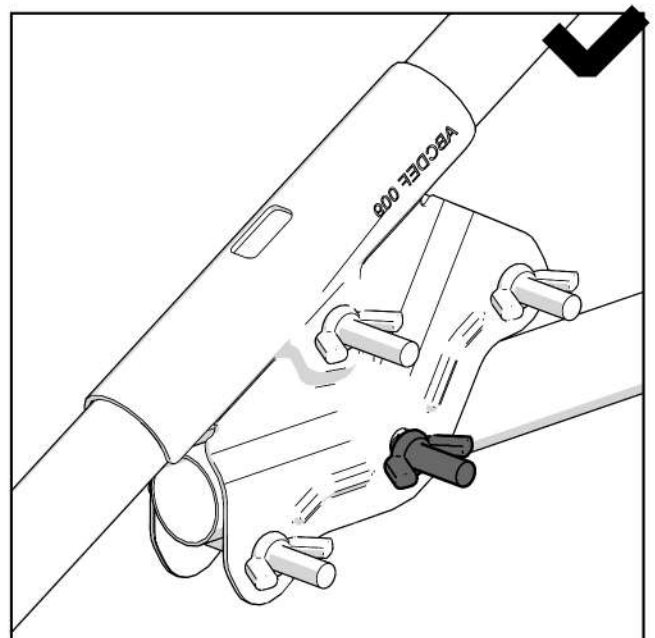
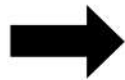
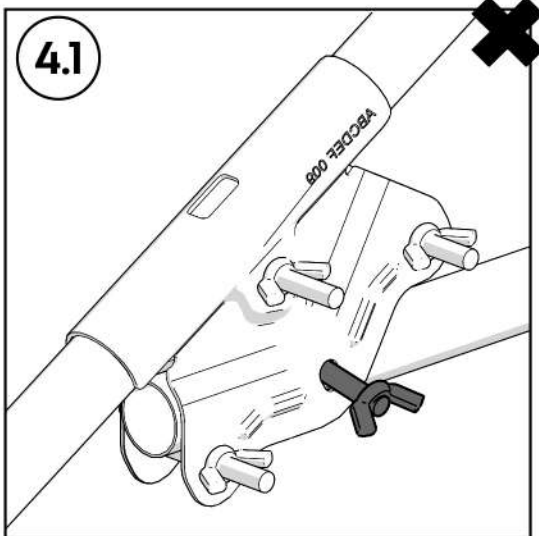
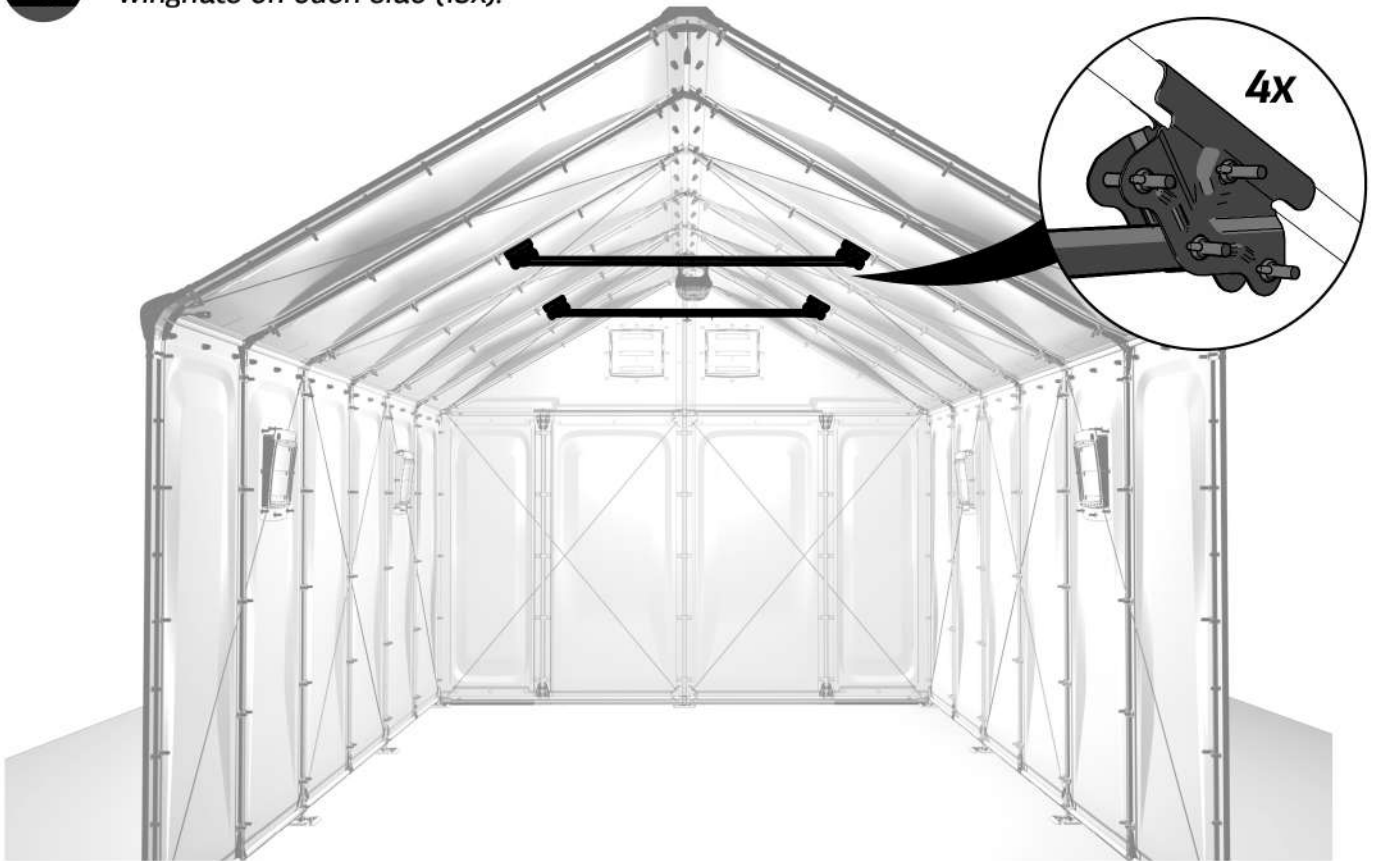






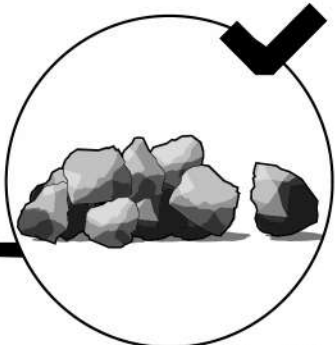
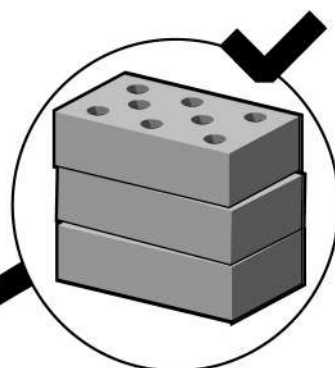
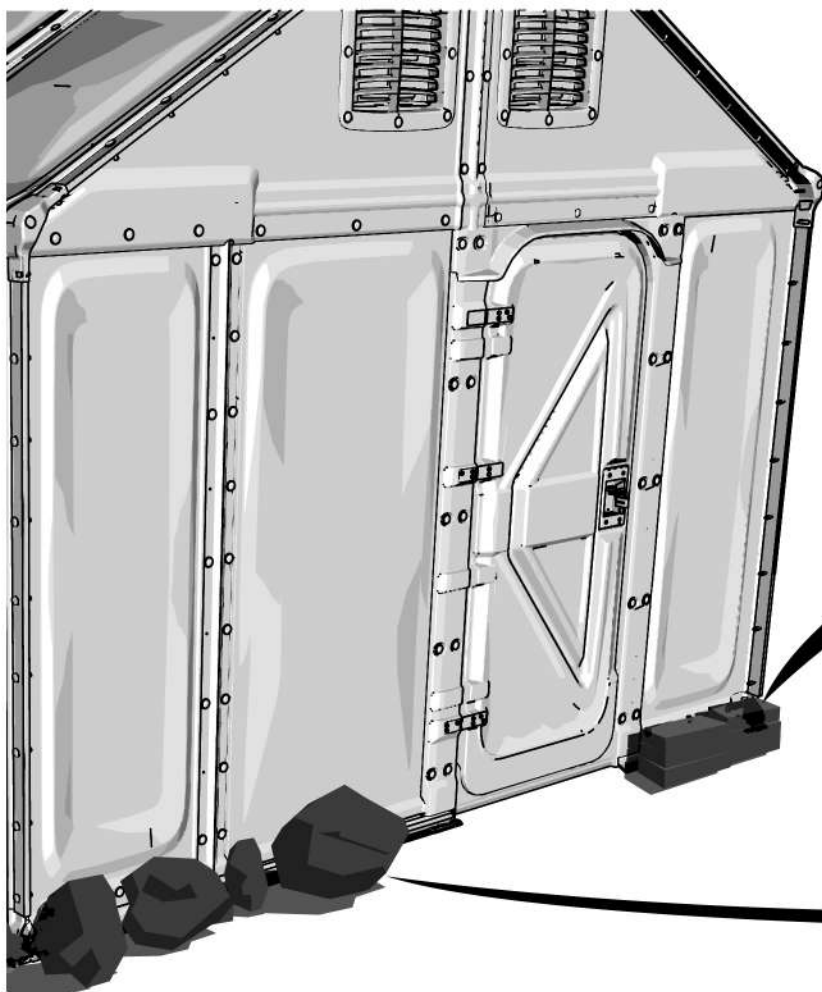
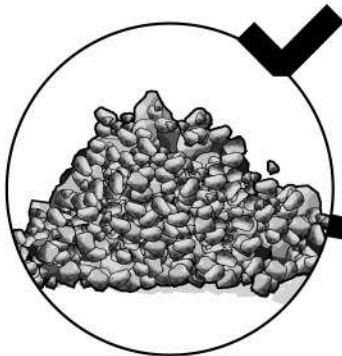
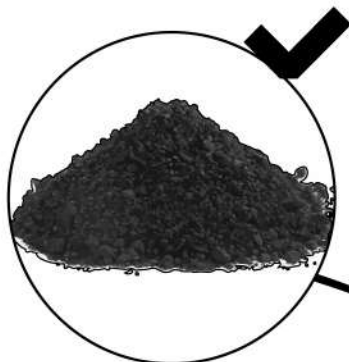
4

Horizontal roof trusses are attached with at least 4 tensioned L-bolts and metal wingnuts on each side (16x).



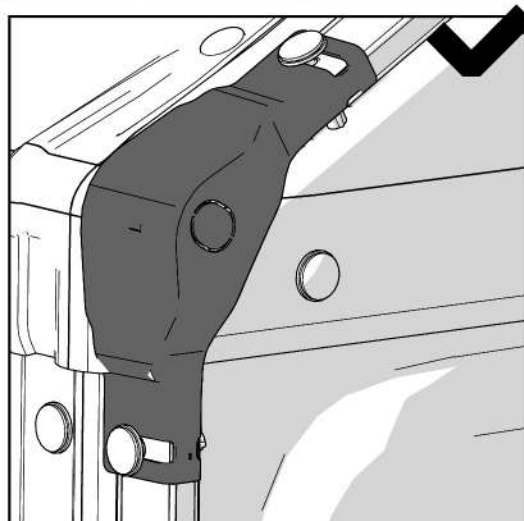
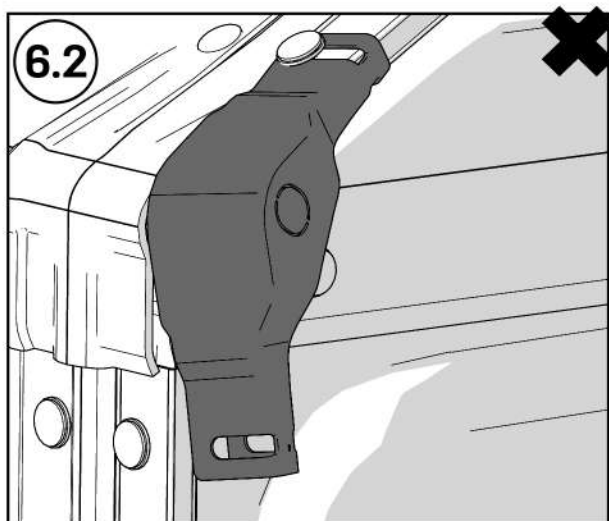
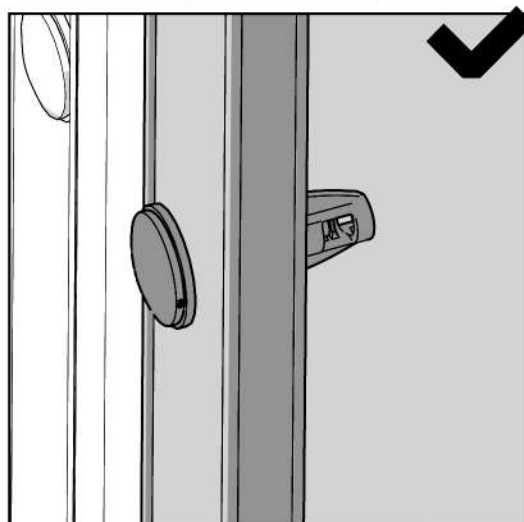
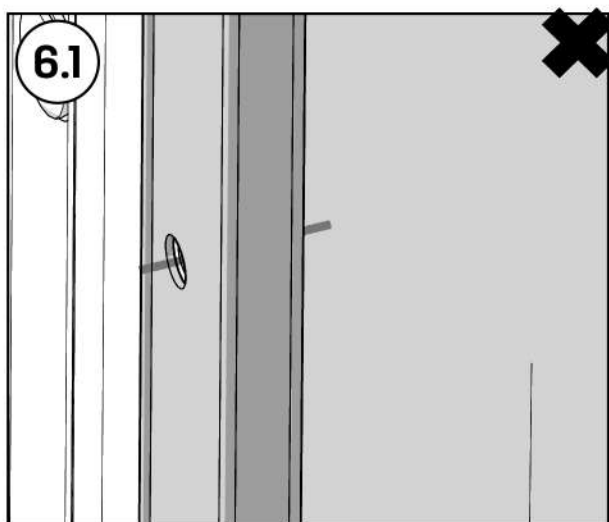
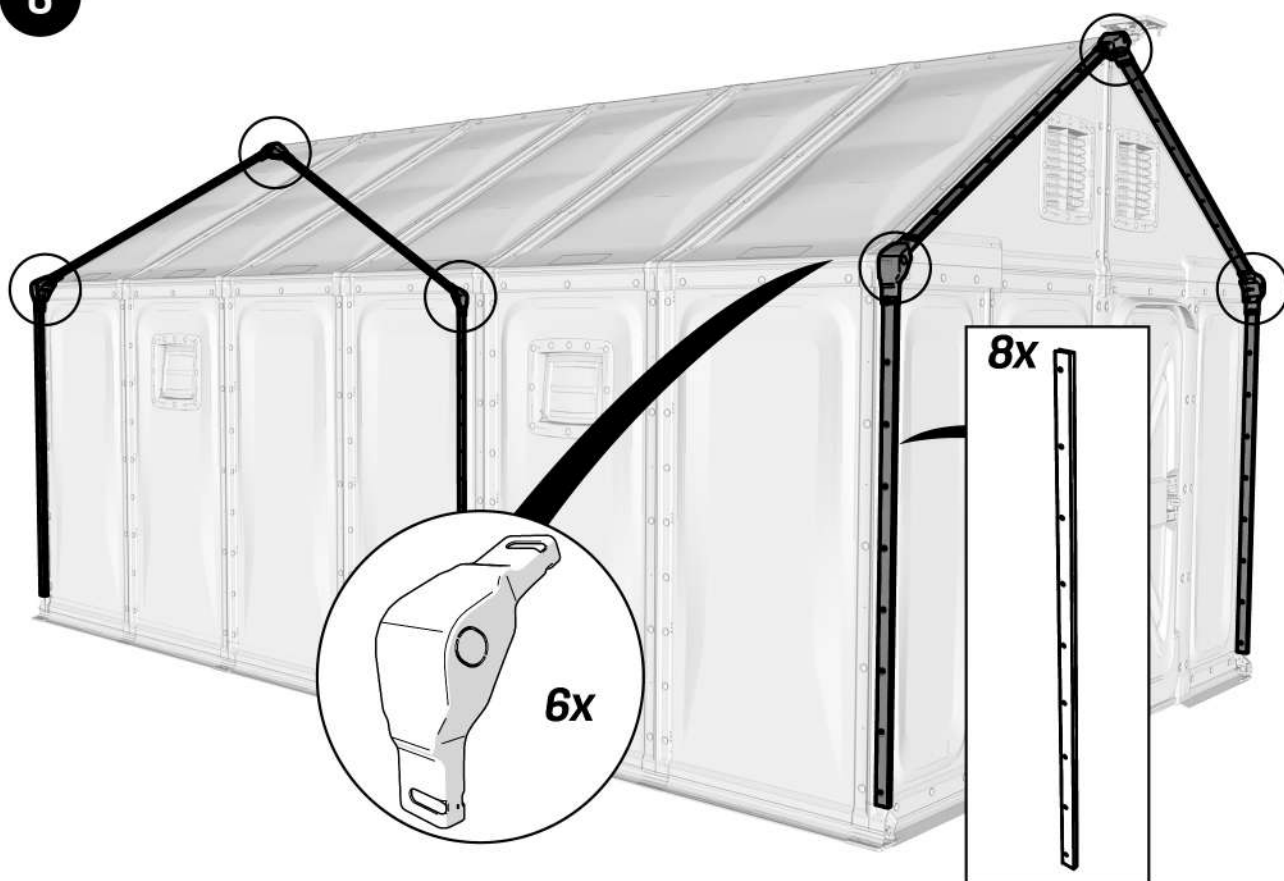
5

Wall panel mud flaps covered by soil, concrete or stones.



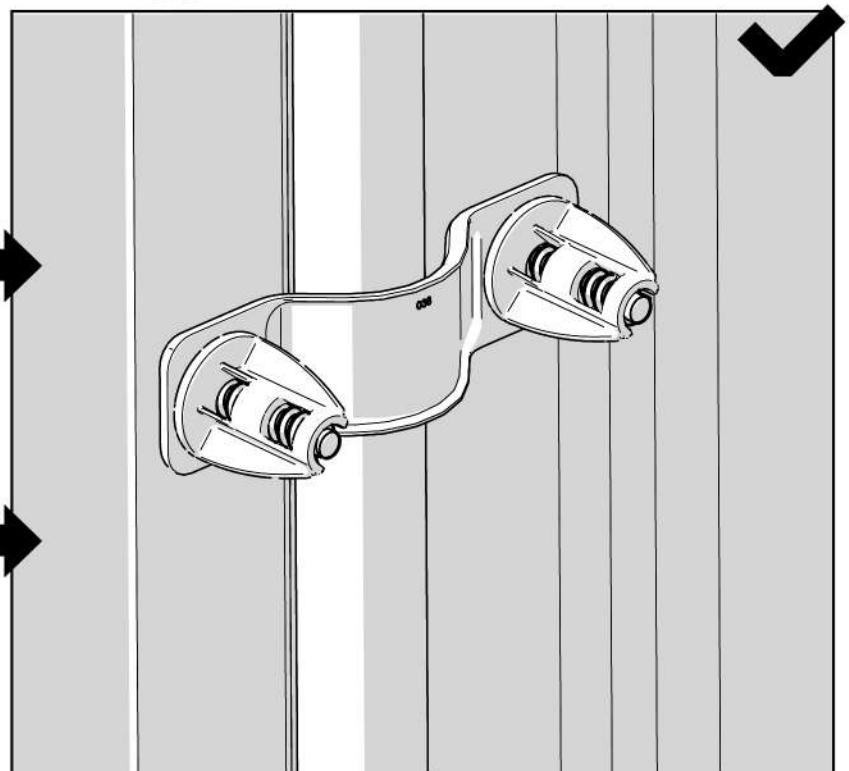
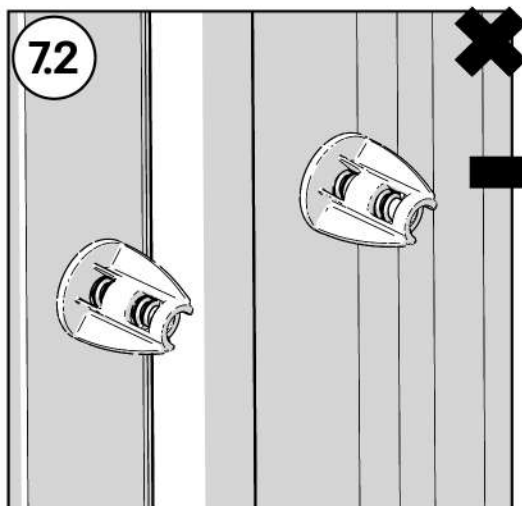
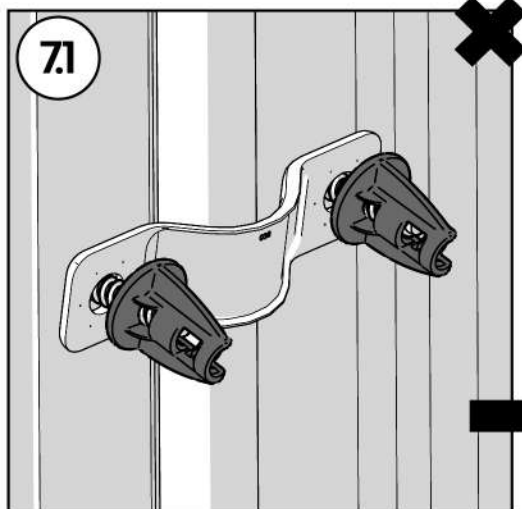
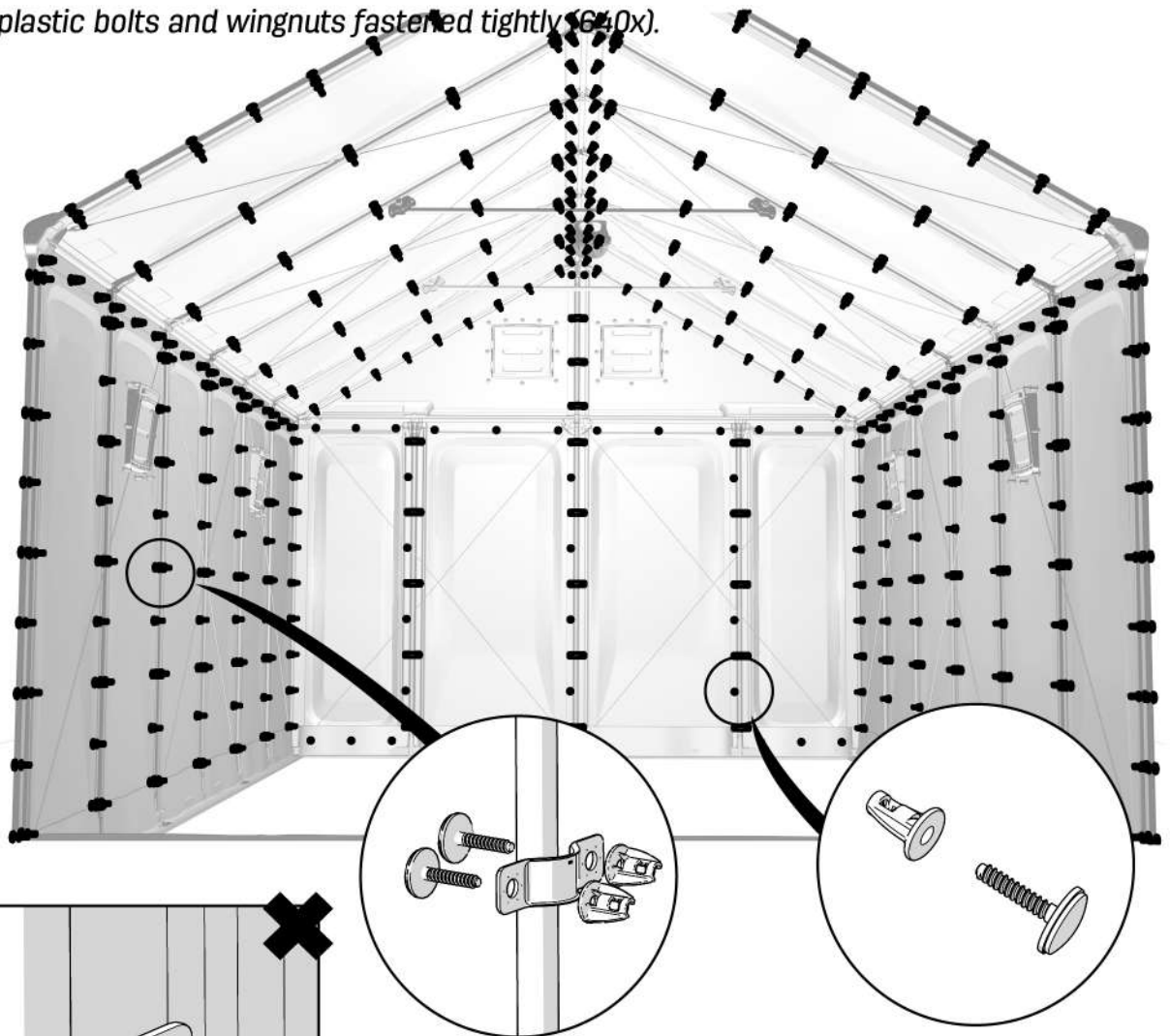
6

All profiles and gable caps in position.



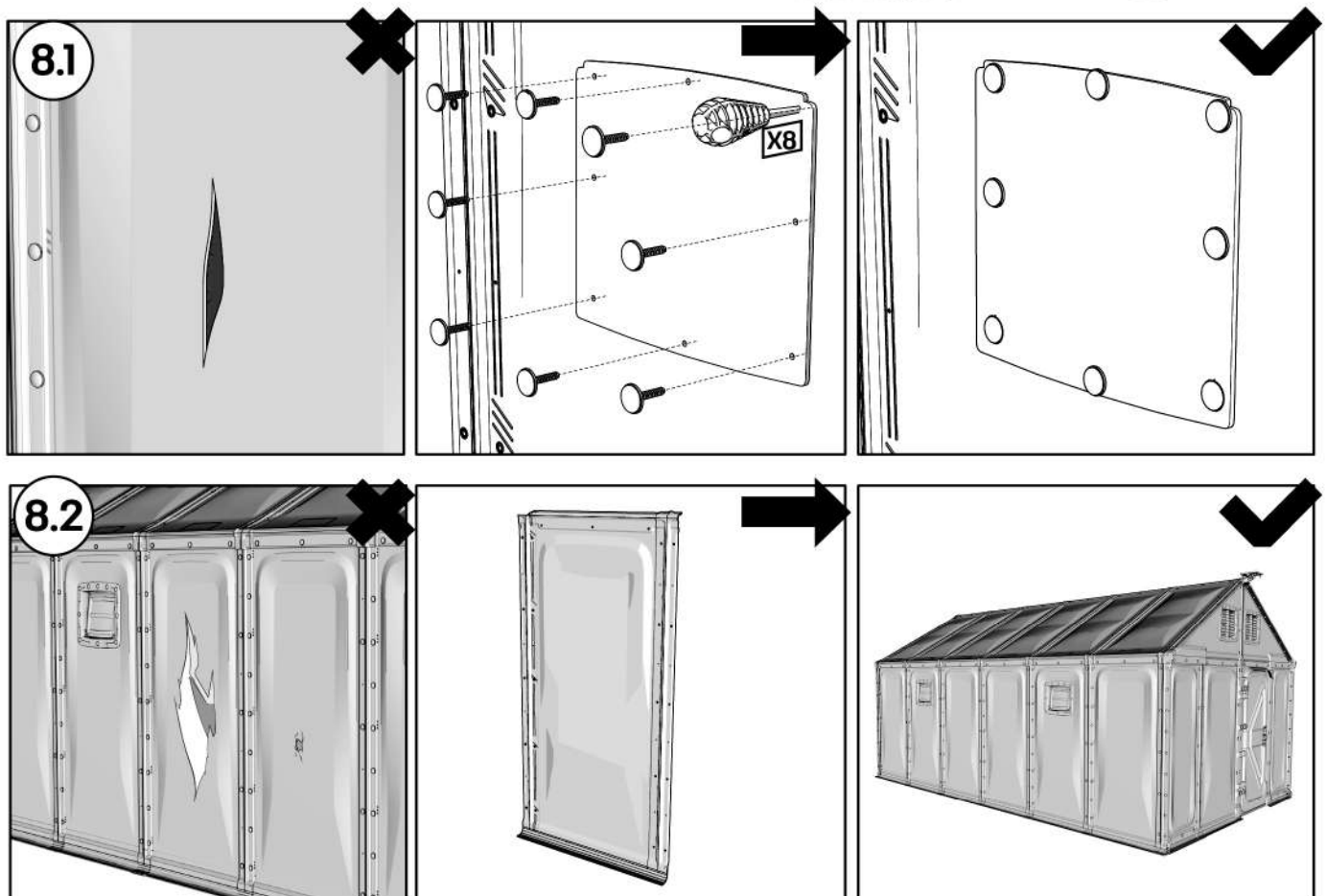
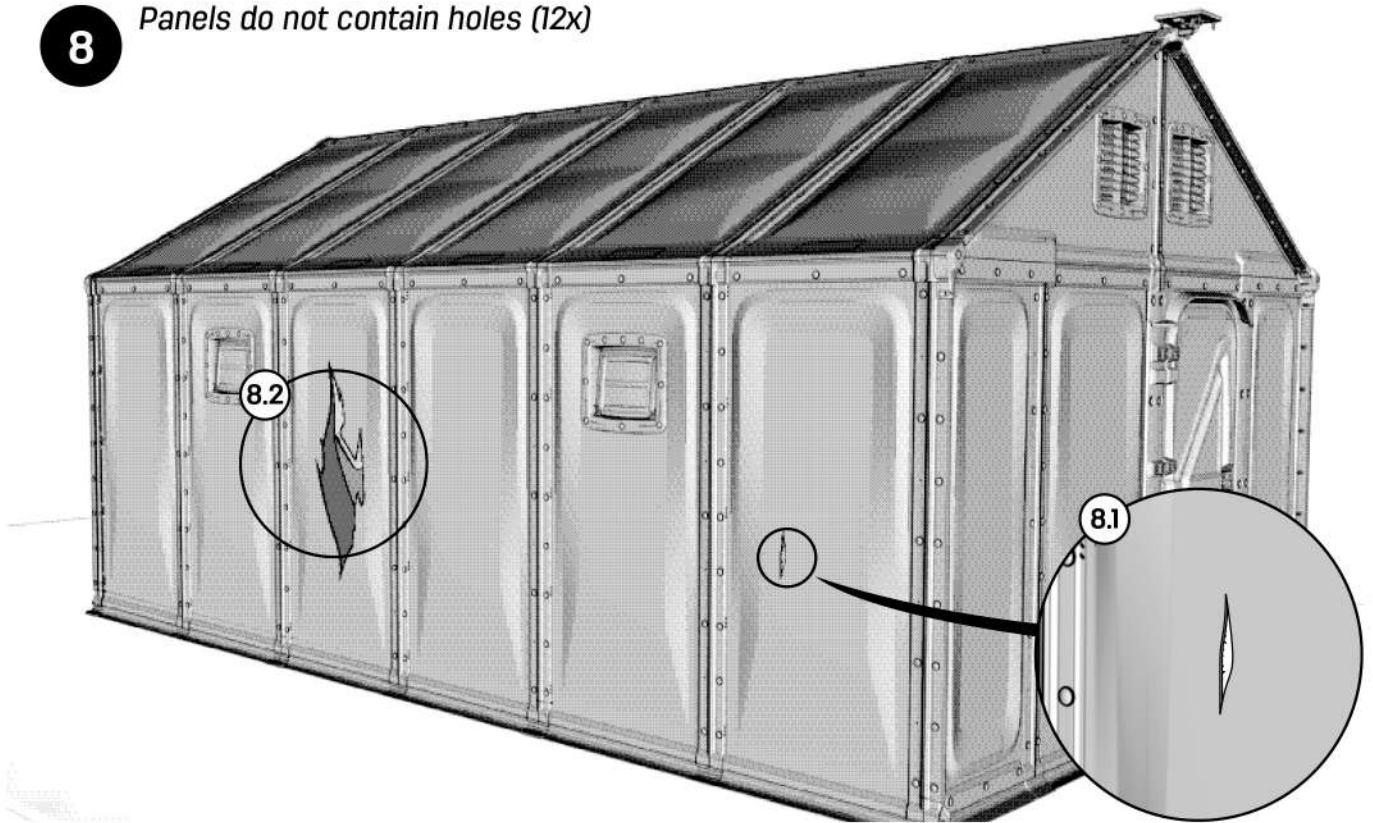
7

All plastic bolts and wingnuts fastened tightly (64.0x).



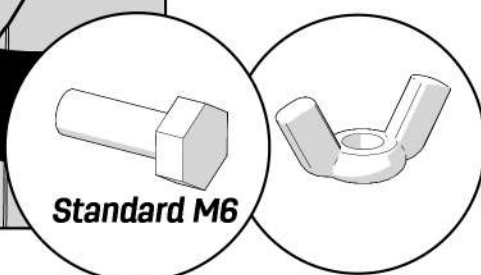
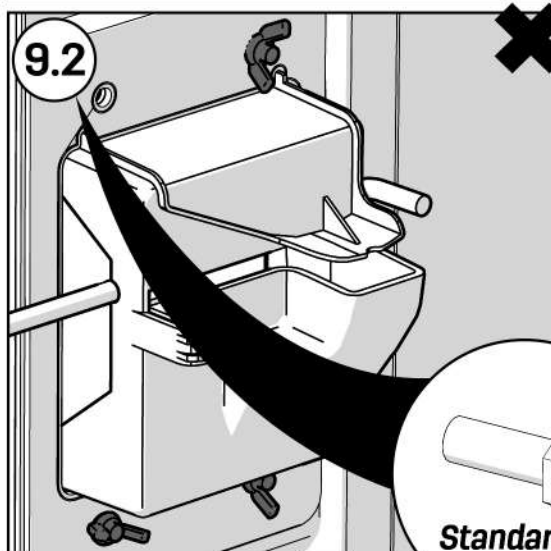
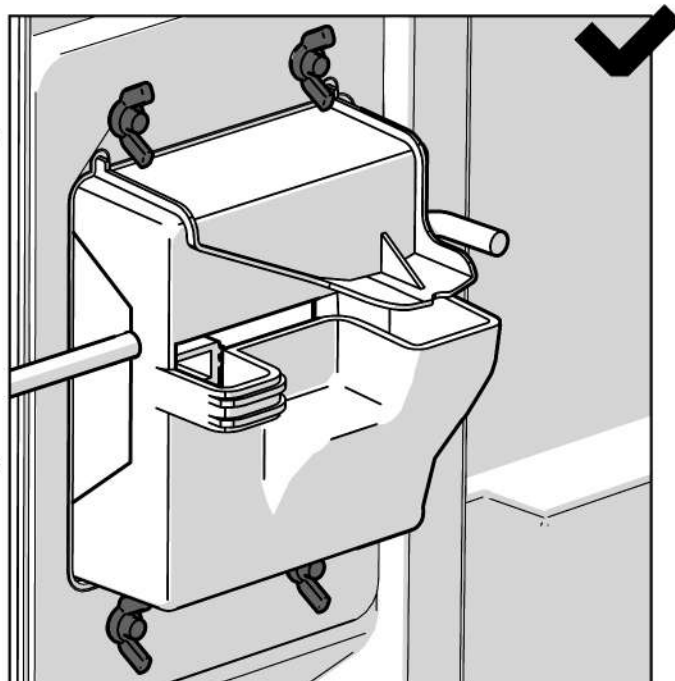
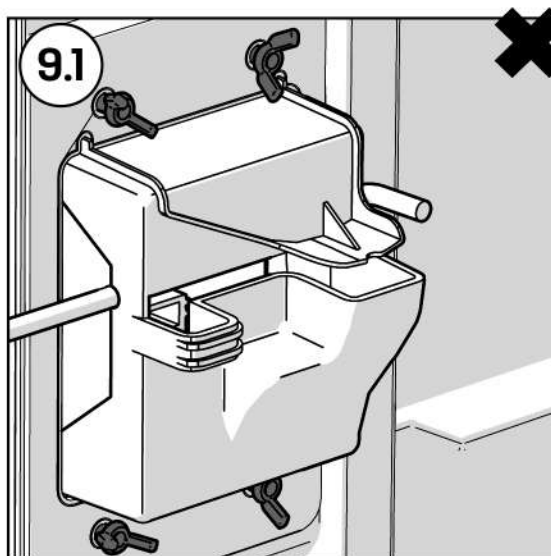
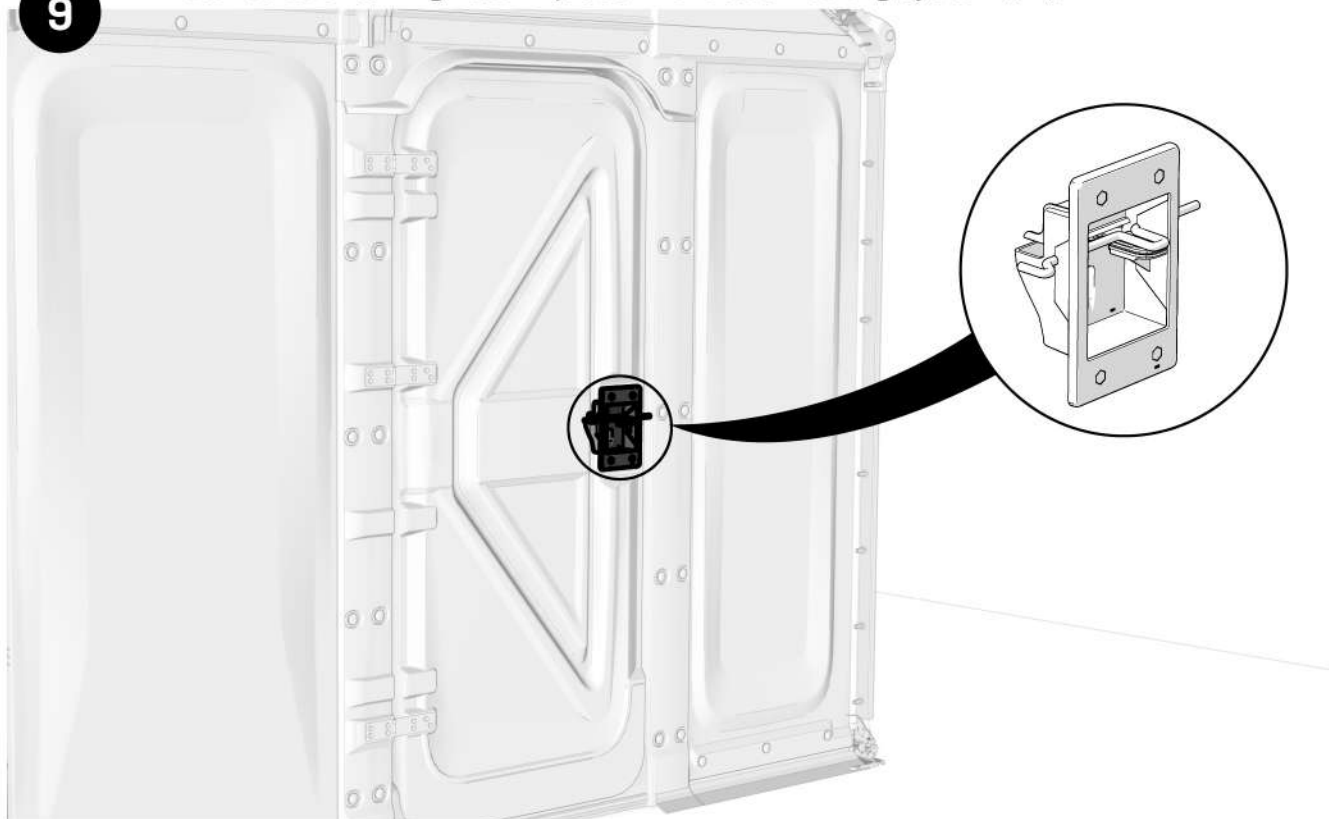
8

8 Panels do not contain holes (12x)



9

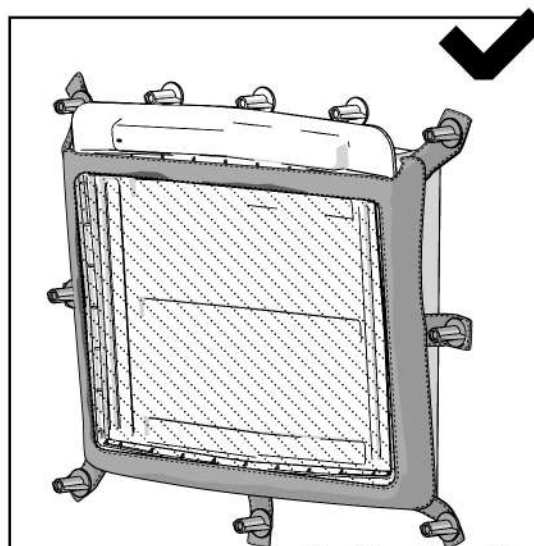
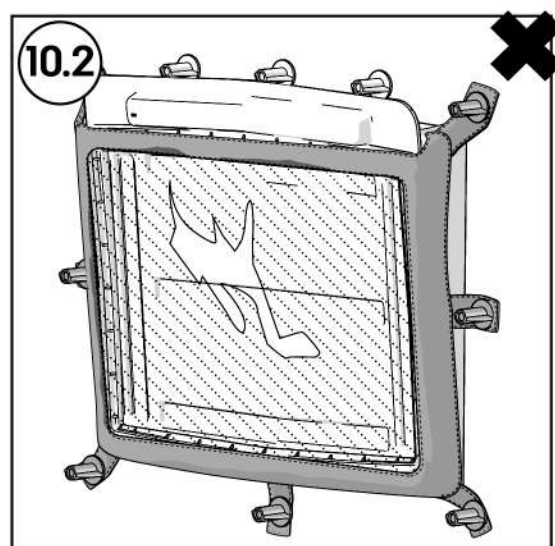
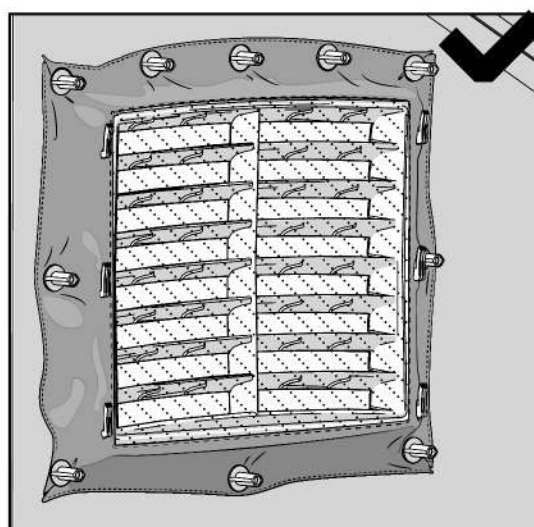
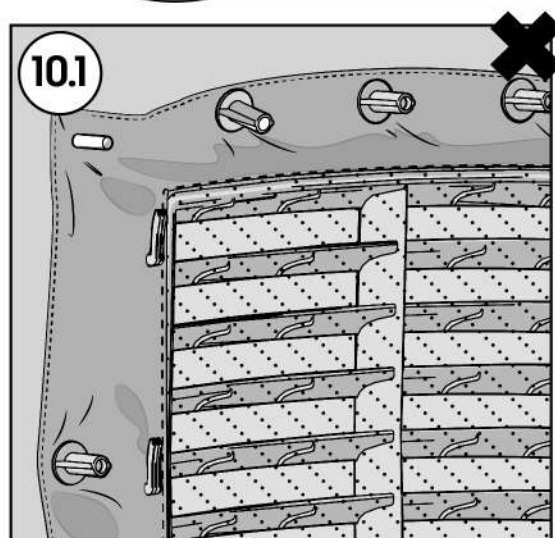
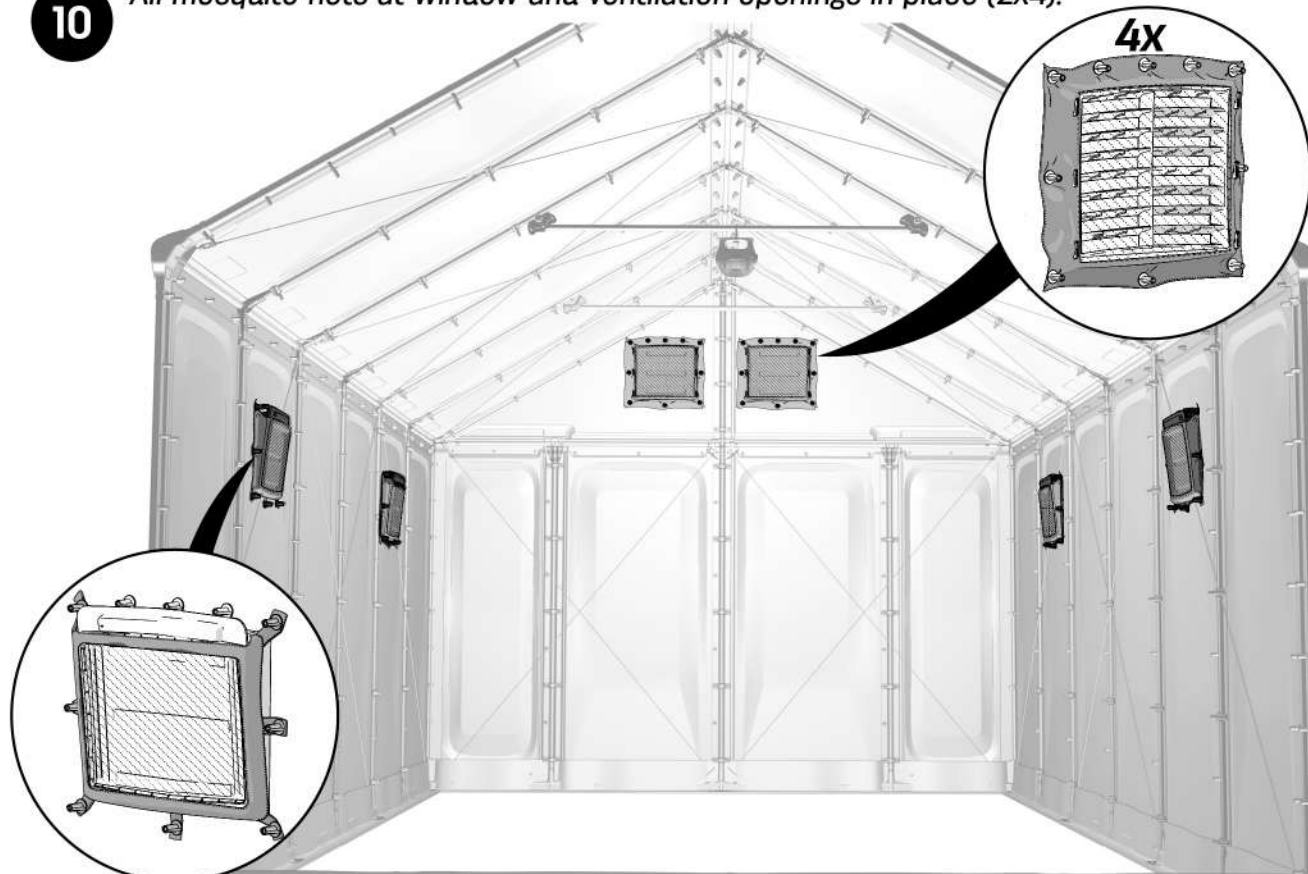
All metal bolts and wing nuts in place in the door locking system (4x).



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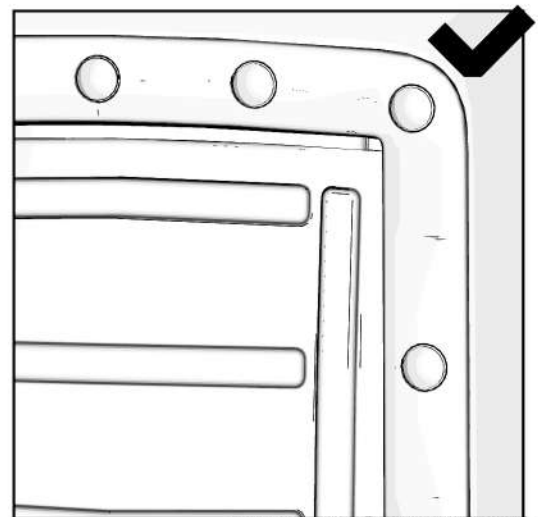
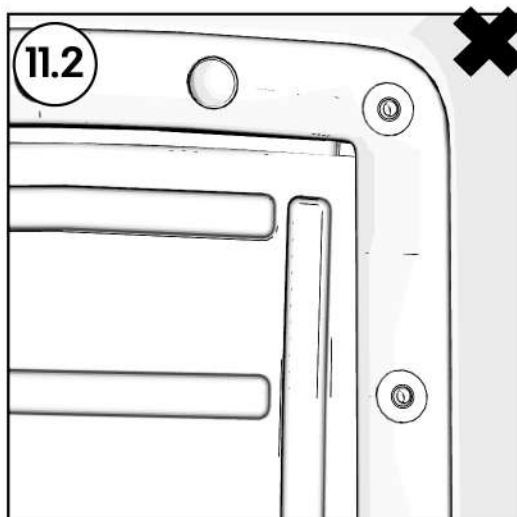
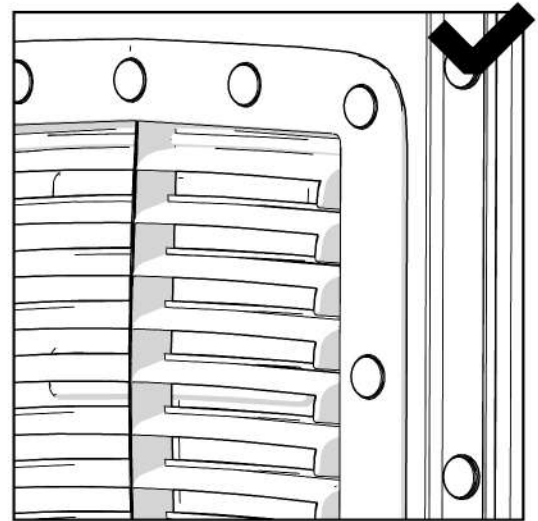
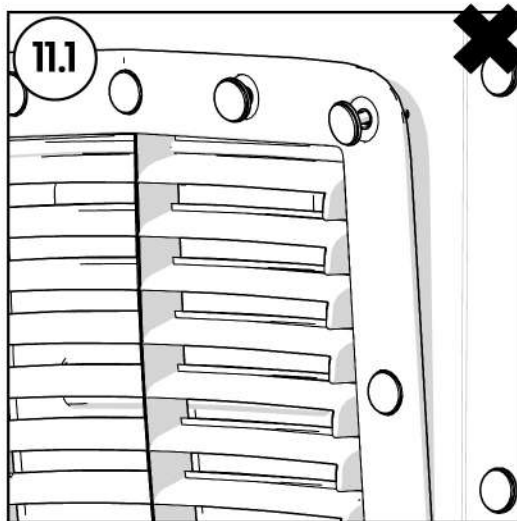
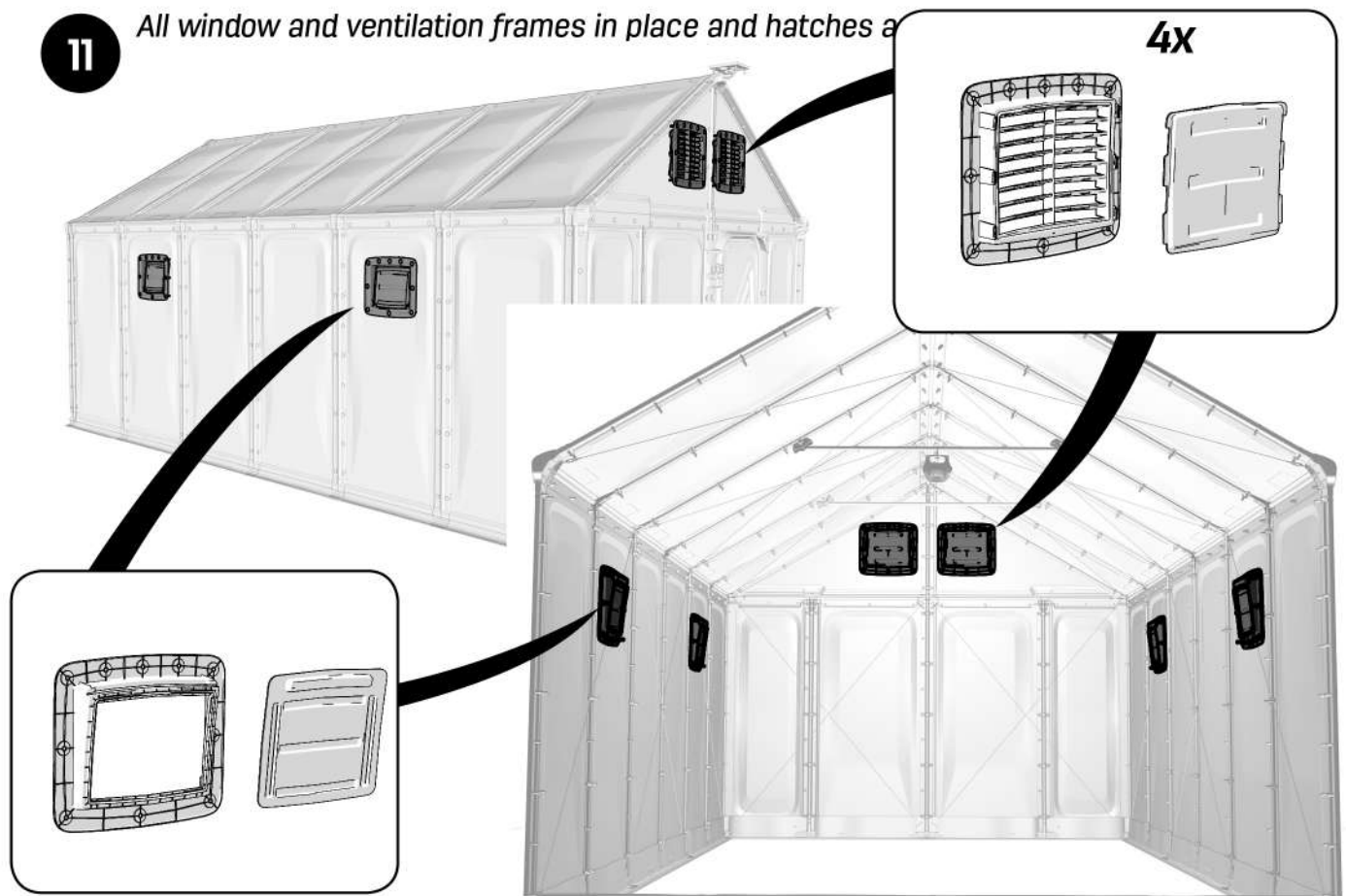
10

All mosquito nets at window and ventilation openings in place (2x4).



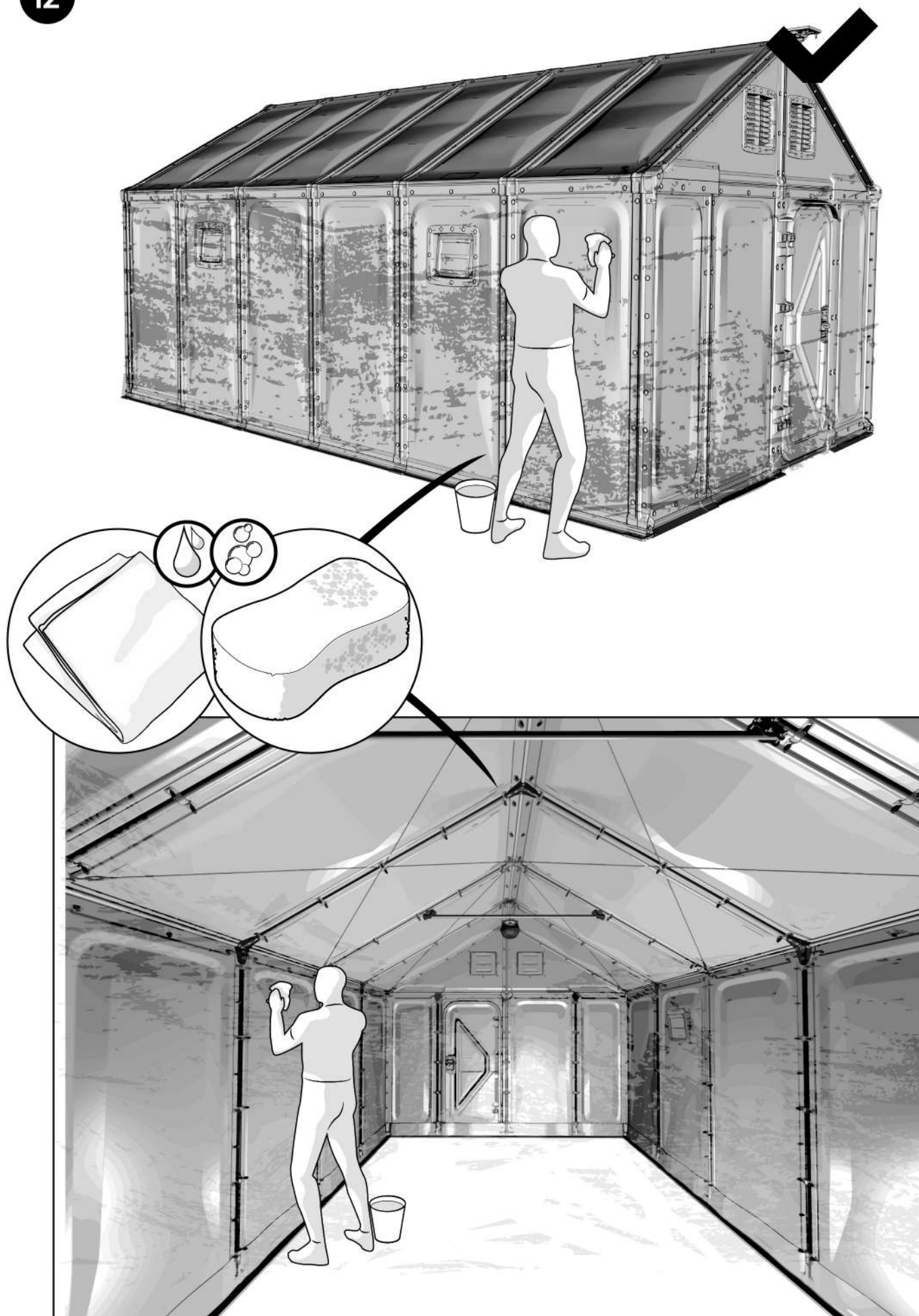
11

All window and ventilation frames in place and hatches a



12

Regularly clean the RHU components with a cloth, warm water and mild detergent.





Hope starts
with a home

Common mistakes guide



Common mistake

Forgetting to insert the L-bolts in the ground plates.



Will lead to the risk in the shelter not properly being anchored to the ground, and compromising stability when facing strong winds, rain and torrents.



Correct approach

Ensure that the L-bolts are inserted to connect the ground plates with the ground pipes.

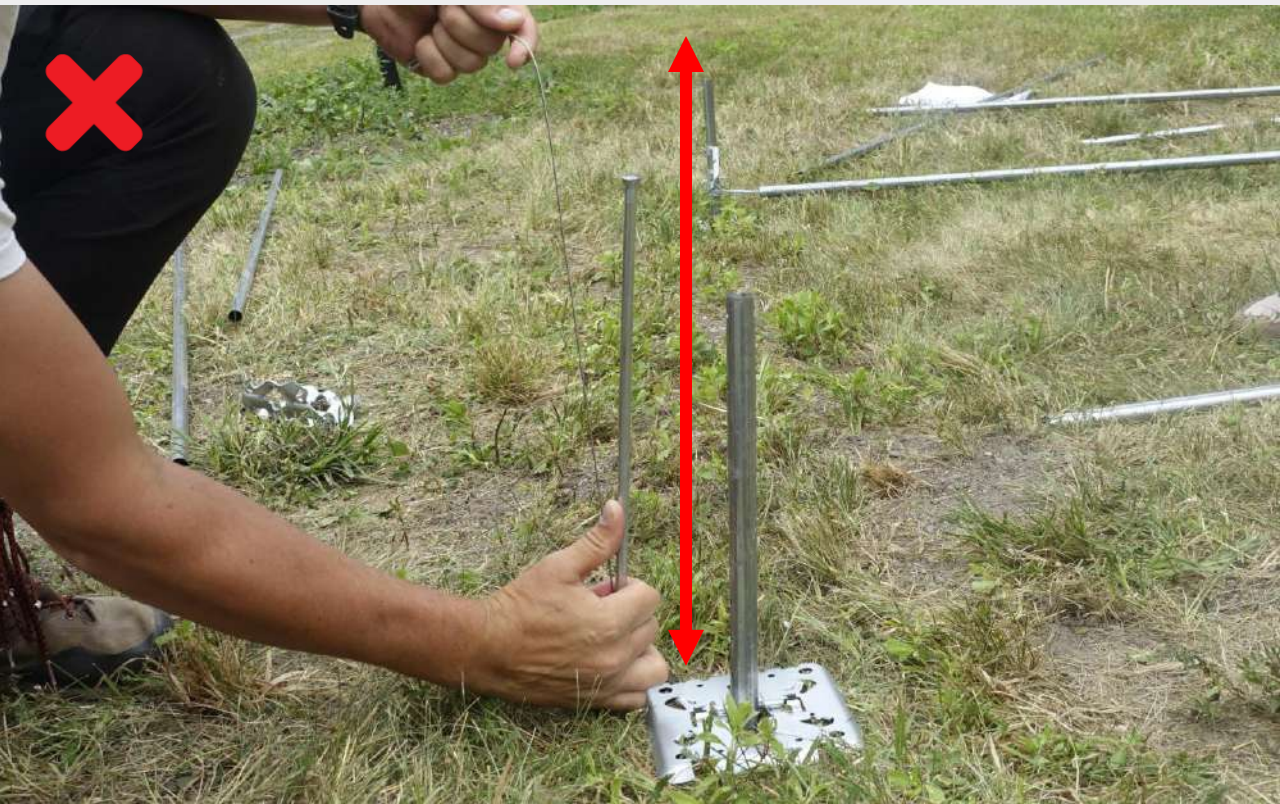


Common mistake

Not hammering the anchor to the correct depth into the ground.



If the anchor is not hammered deep enough, it will not take sufficient load which could cause the shelter to blow away. If the anchor is hammered too deep, there will not be enough cable left to attach to the ground plate.



Correct approach

To hammer the anchor to the correct depth.



Common mistake

Hammering the ground anchor too far from the ground plate.



The anchor will not be deep enough into the soil to take loads and there is a risk of the shelter blowing away.



Correct approach



To hammer the ground anchor close to the ground plate.



Common mistake

Placing the pipes with holes facing the wrong direction.



If the holes are placed in the wrong direction, it will not be possible to insert the L-bolts to attach the ground pipe, joint and wall column. This might result in the shelter blowing away in the event of strong winds.

Correct approach

To place the pipes with holes facing the correct direction.



Common mistake

Forgetting to insert the L-bolts in the joints that connect to the ground pipe.

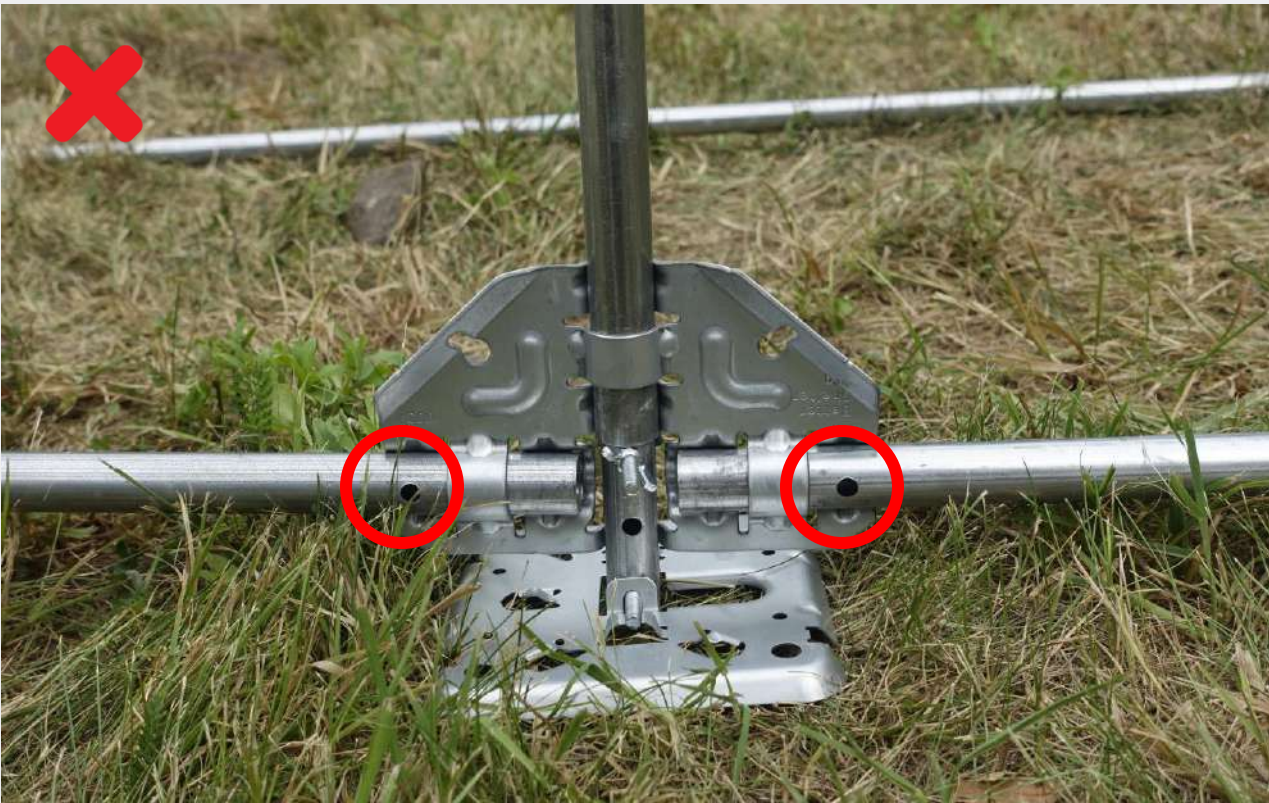
Correct approach



Ensure that the L-bolts are inserted to connect the joints to the ground pipes.



May lead to the risk of the pipes slipping out of place in the event of exposure to strong winds or torrents.

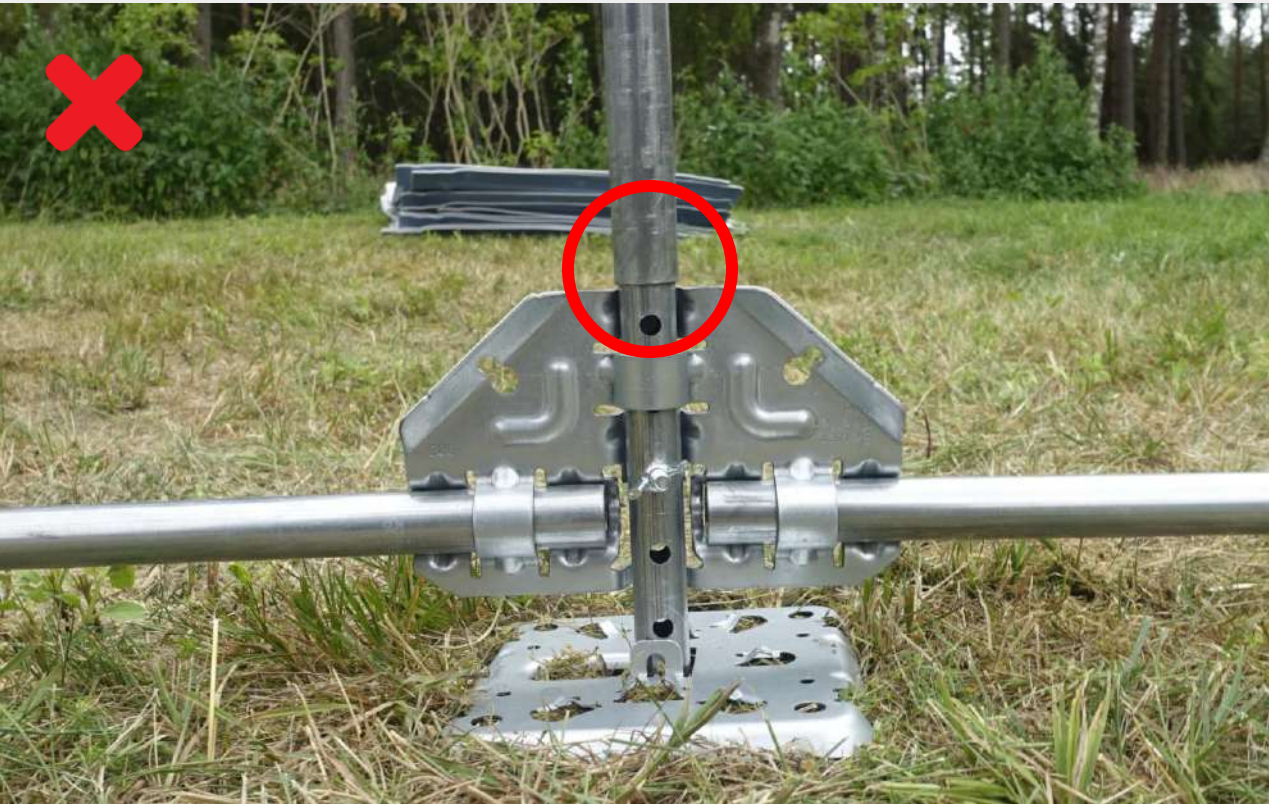


Common mistake

Not inserting the wall pipes all the way down so that they are resting on the L-bolts underneath.



Will pose a risk of compromising stability. The roof will not be able to take wind forces if the pipes are not resting on the L-bolts.



Correct approach



To ensure to insert the wall pipes all the way down so that they are resting on the L-bolts underneath.



Common mistake

Not attaching all four L-bolts to the roof truss.

Correct approach



To ensure that all the four L-bolts are attached to roof truss.



The L-bolts will support the roof truss and stabilise it when facing strong winds.

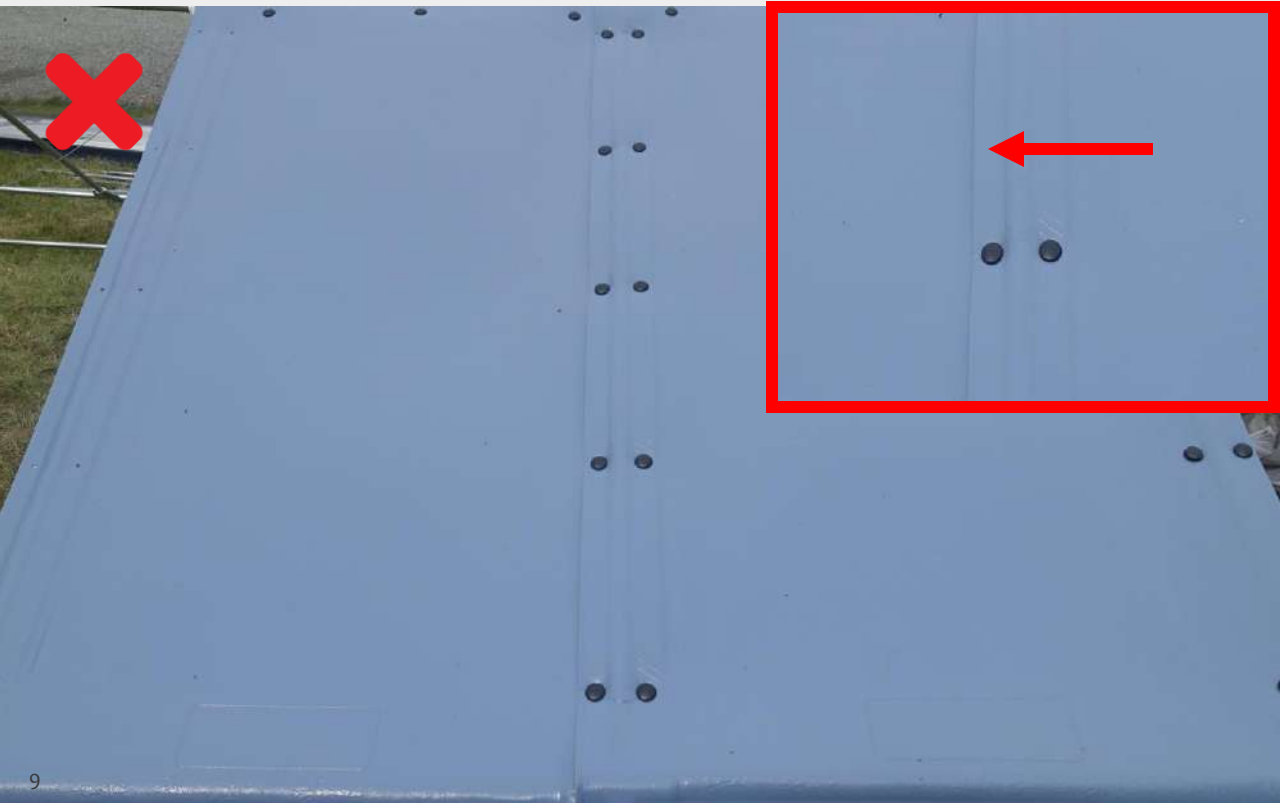


Common mistake

Overlapping the roof panels in the wrong direction, from left-to-right.



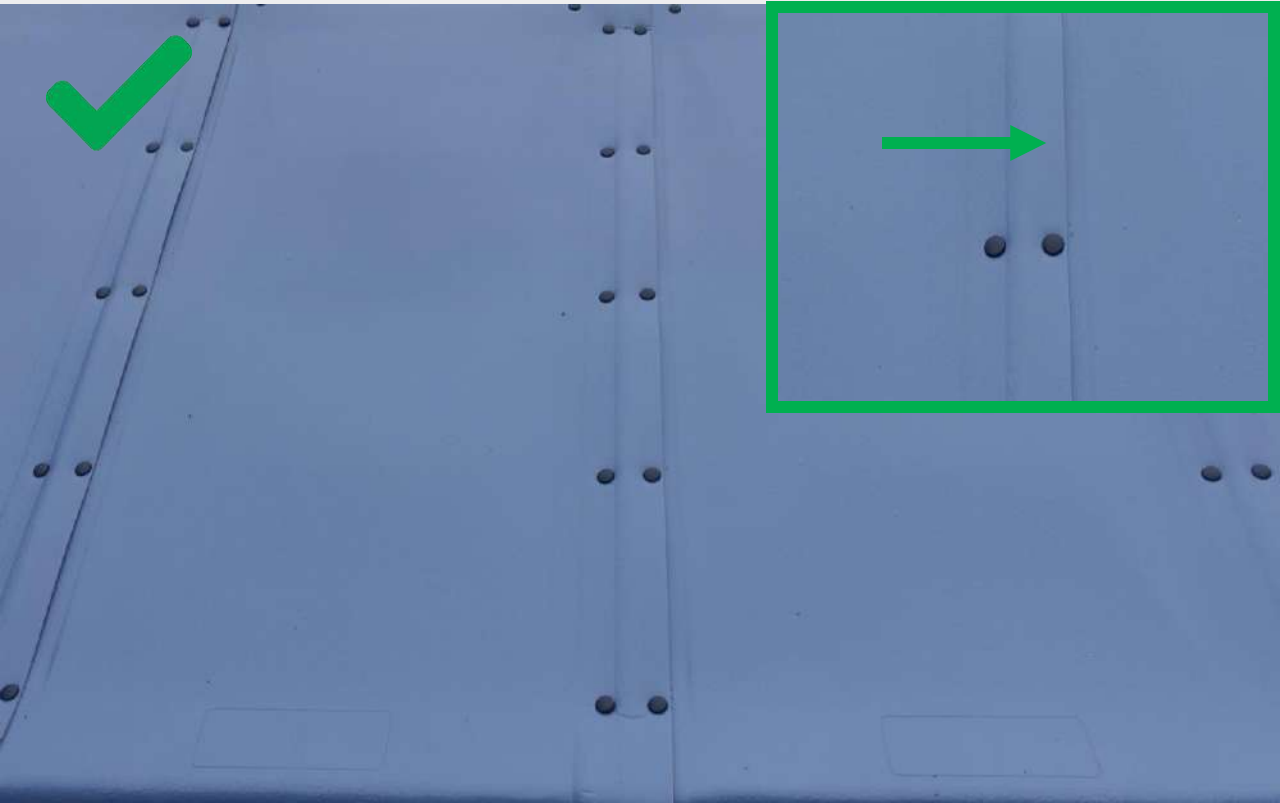
Will pose a risk of water leakage.



Correct approach



To ensure the roof panels are overlapping in the correct direction, from right-to-left.



Common mistake

Placing the roof panels on an uneven plane, so that a depression forms a gutter at the eave/edge of the roof.

✱ Will pose a risk of water collecting on the roof and not being drained.

Correct approach



To ensure that the wall and roof panels are correctly placed on a straight, even plane to avoid forming a gutter.



Common mistake

Overlapping the wall panels in the wrong direction, from left-to-right.



Will pose a risk of water leakage.



Correct approach



To ensure that the wall panels are overlapping in the correct direction, from right-to-left.



Common mistake

Not attaching the T-connectors to the L-bolts.



Will pose a risk in compromising the stability of the shelter, as it will not work as one unit/system against strong winds and torrents.



Correct approach



To ensure to attach the T-connectors to the L-bolts.

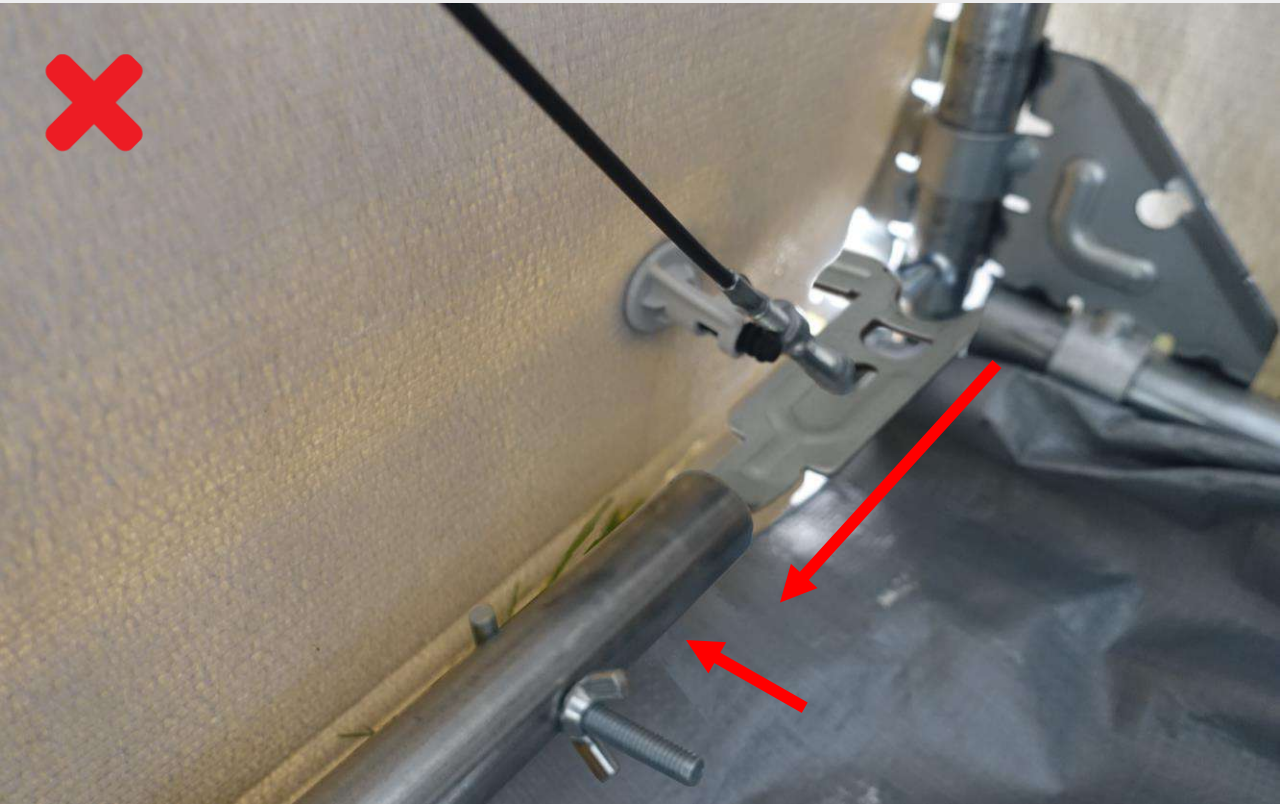


Common mistake

Not attaching the T-connectors all the way into the pipe.



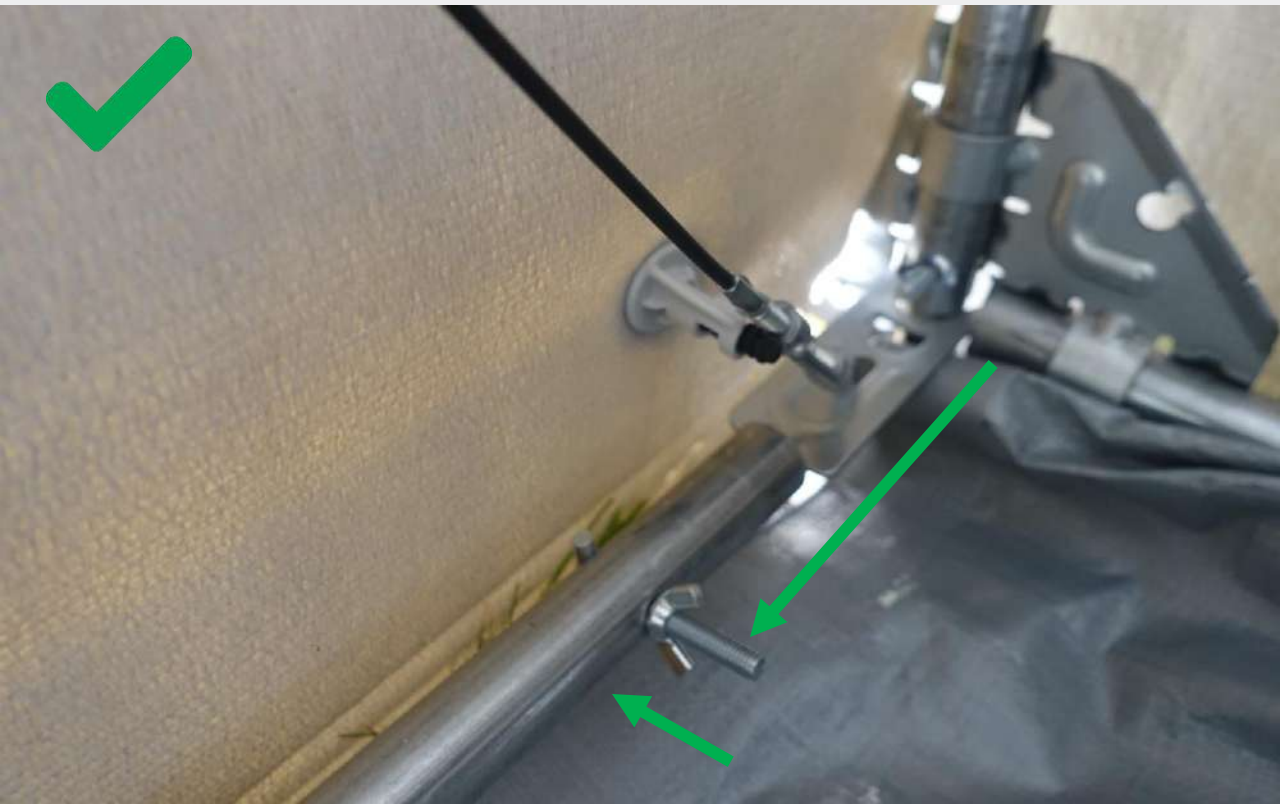
Will pose a risk in compromising the stability of the shelter, as it will not work as one unit/system against strong winds and torrents.



Correct approach



To ensure to attach the T-connectors all the way until the stop into the pipe.



Common mistake

Not connecting the wire bracing on the short side to the correct hole.



Will pose a risk in compromising the stability of the shelter, as it will not work as one unit/system against strong winds and torrents.



Correct approach



To ensure the wire bracing on the short side is connected to the correct hole.



Common mistake

Not tightening the wire bracings enough when the build is done.



Will pose a risk in compromising the stability of the shelter, as it will not work as one unit/system against strong winds and torrents.



Correct approach



To ensure that the wire bracings are tightened to a sufficient tension when the build is done.



Common mistake

Mounting the door with the hinges facing a non-load-bearing pipe.



Will pose a risk that the door will fail over time.



Correct approach



To ensure the door is mounted with the hinges facing a load-bearing pipe.



Common mistake

Placing the door canopy overlapping the wall and roof panels.



Will pose a risk of water leakage.



Correct approach



To ensure that the door canopy is placed under the roof panel and above the wall panel.





Contact us

We encourage you to contact us to ensure a right implementation!

The purpose of this document is to show implementing partners the options for using structures or RHUs.

If you find any inconsistency in the content of this document or have any suggestions, we would love to hear from you.

We facilitate a phone number to make technical communication as quick and easy as possible.



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