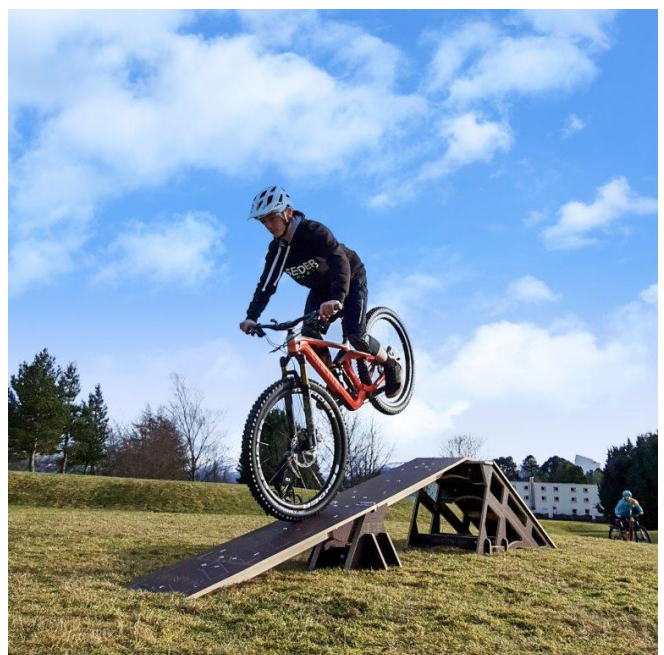




# SENDER SEESAW AND BALANCE BEAM



The New Modular Sender Seesaw and Balance Beam are super versatile pieces of coaching equipment that will allow you to create engaging, challenging and fun skills and technique sessions. You can easily make sessions more progressive by adding bolt on features to your system.

It is important that the Seesaw is NEVER used as a piece of play equipment with a human at either end. It must only be used by ONE person at a time ON a bike! The Seesaw may fail / break / become damaged if used inappropriately.

## Designed for:

- Riders, clubs and coaches including E Bikes.
- Any wheel size. Balance bikes and beginners are best practicing on the WIDE 400 mm Surface.

## Safe Use:

Always wear a helmet and gloves. Ensure adequate fall space all around. Keep spectators clear. It may be safer to have a spotter located at the Seesaw when it is in use by beginners attempting the Features for the first time. Locate the Seesaw on a flat even surface. Take your time to familiarise yourself with the components and function and follow all the assembly instructions carefully for max strength. Built confidence by using the equipment yourself before trying sessions with other people. ALWAYS check all nuts, bolts, structure and surfaces before each use. Maintain and Inspect the equipment frequently.

## Sender built to last:

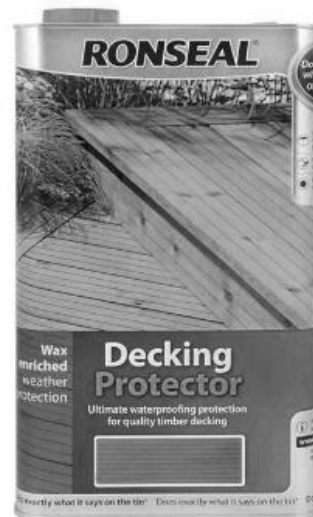
Designed and Manufactured in the Highlands of Scotland from 18 mm (13 layer) Birch Plywood and 18 mm (13 layer) Phenolic Grip (mesh) coated Plywood secured with Stainless Steel Components. Look after your trainer and it will last a life time. We recommend storing the trainer inside after use and carefully drying the trainer if it is used outside in the damp or rain. Spare parts are available on request.

## Maintenance:

Moving parts such as Nuts and Bolts should be silicone sprayed frequently. All cut edges and natural plywood faces should be treated with (we recommend) Ronseal Water Based (LOW VOC) Decking protector NATURAL colour. It is essential that you wipe the protector OFF the BROWN surfaces with a wet cloth and then dry to avoid a skin forming. Allow the protector to soak into the plain Birch surfaces. 2 x Coats will significantly increase the lifespan of your equipment. Repeat annually. Under no circumstances use Varnish!! Check for damage before and after each use and retire the Trainer to seek advice from support@sender-ramps.com

## Installation Equipment required:

- 1 x 6 mm Allen Key found on your bike tool
- 1 x 6 mm T Handle Allen Key found online (Better than a Bike Tool)



## Handy and Super-Fast! For changing your equipment.

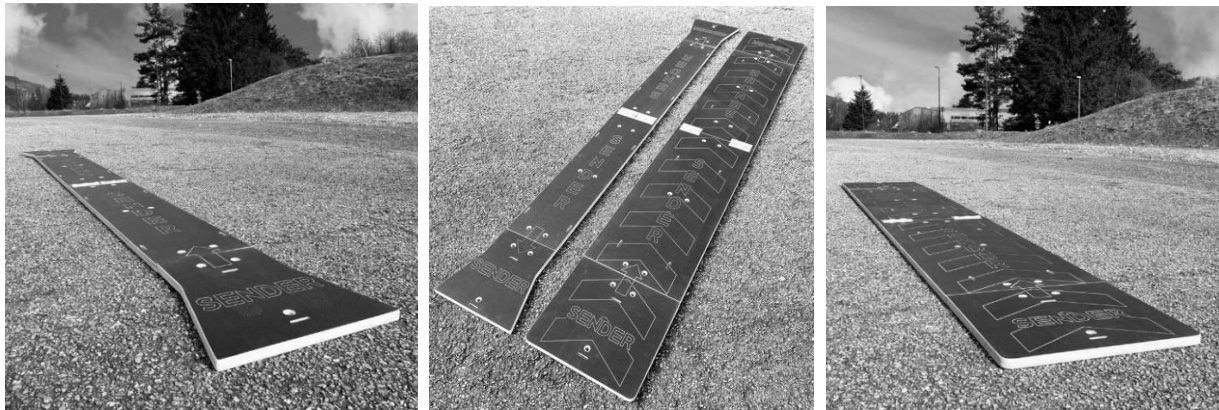
- 1 x Battery Powered Impact Driver / Impact wrench with a 6 mm Allen Key Attachment

**WARNING: You MUST ALWAYS catch the thread of bolts with your finger first! BEFORE using a T Handle Allen Key or Impact Driver! This will prevent cross threading.**

Here are the common components and the names used in this Guide /Manual:



Seesaw and Beam Substructure with Pivot Plate - Seesaw Tower and Rest



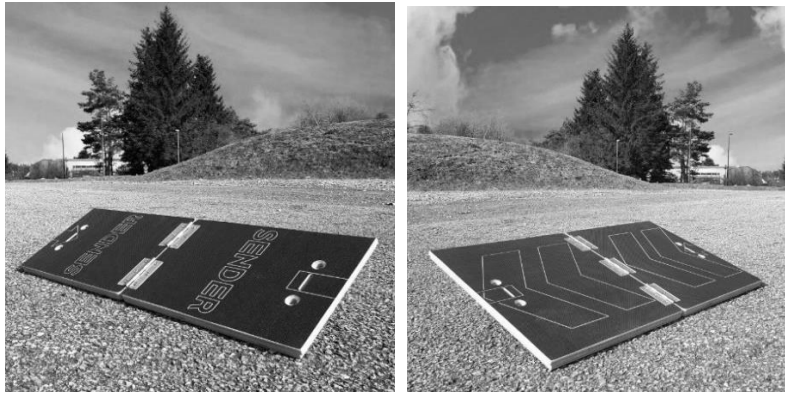
Narrow Rolling Surface with On / Off Paddles - Wide Rolling Surface with On / Off Paddles



Balance Beam 200 High Supports - Low Beam Ramps Narrow Surface - Low Beam Ramps Wide Surface with Supports



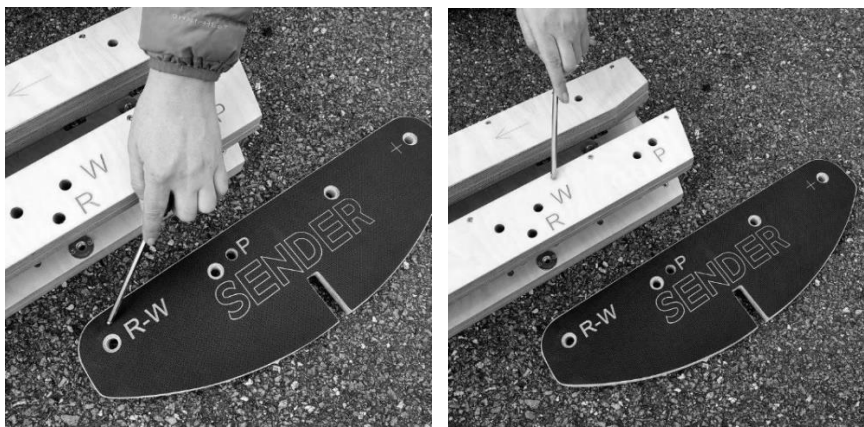
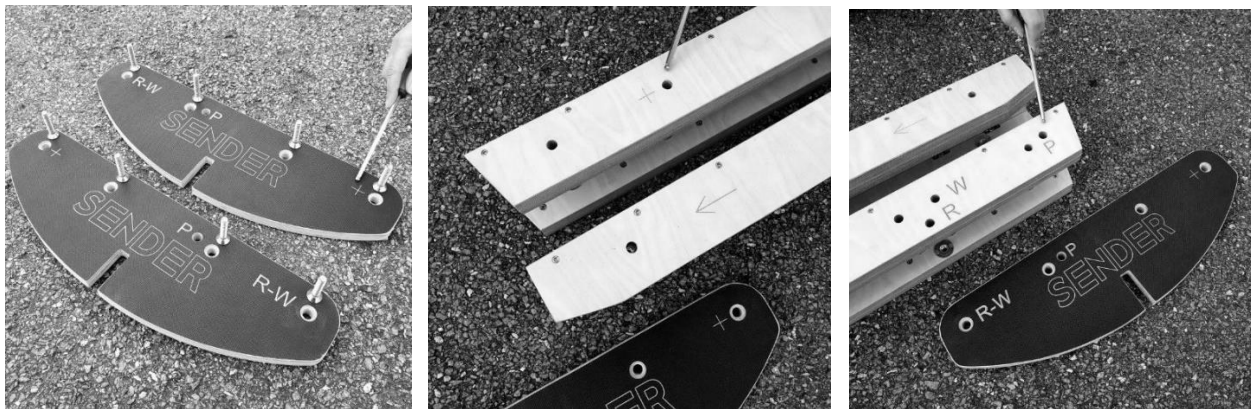
Seesaw / Balance Beam 350 High Legs and Ledge - Beam Swivel Narrow - Beam Swivel Wide

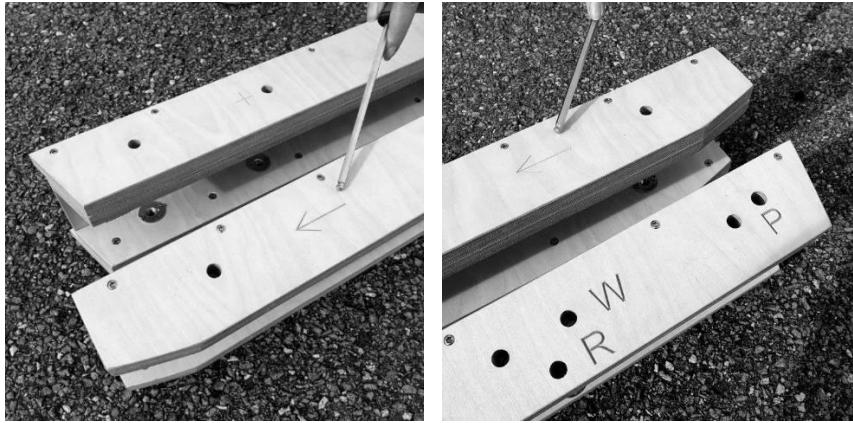


Wave Component Narrow - Wave Component Wide

## UNDERSTANDING THE MARKINGS ON THE SEESAW / BEAM SUBSTRUCTURE and PIVOT PLATE

1. † = FIXED BOLT POINT. This Bolt is NEVER Removed UNLESS you are switching to the Low Beam Support Components.
2. P = PIVOT POINT – This is the pivot point for the Seesaw bolt. When using the Seesaw in WAVE or RAMP mode the Seesaw Pivot bolt does NOT go through the PIVOT plate
3. W = WAVE MODE – This mode creates an A FRAME folding on the Seesaw Pivot Bolt.
4. R = RAMP MODE – This mode creates an UP RAMP to a Horizontal 350 mm high BALANCE BEAM. This connects to a 350 High Ramp using the LEDGE Component. \*\* Instructions come with these Components.
5. ← = DIRECTION OF TRAVEL ARROWS – These indicate the ON and OFF end of the Beam and Surfaces
6. X = CENTRE OF BEAM – Place these together to get the correct orientation of the Substructure.





## ASSEMBLING THE SUBSTRUCTURE

Place the two parts of the Substructure on a Flat Even Surface. Place the the Two **X** Marks together. Below the **X** marks the Beam is Chamfered (Angled). Look for the Direction of Travel Arrows. One is at the start (ON END) of the Substructure and the other is at the (OFF END) of the Substructure.



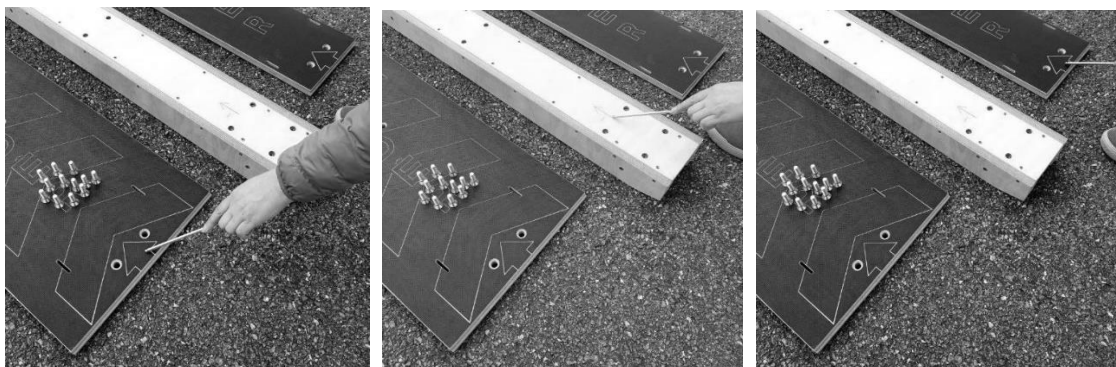
## ATTACHING THE SURFACES – THE PROCEDURE IS THE SAME FOR NARROW AND WIDE SURFACES THIS DEMO = WIDE SURFACE.

Choose the Surface (NARROW or WIDE) that you will use for your practice / coaching session. The process for Attaching and Detaching / Switching the surface is the same for BOTH Surfaces. Open / Unfold the Surface so you can see the GRIP COATED face with the Markings. Turn the Surface so that the ARROW on the Surface is pointing the SAME DIRECTION as the arrow on the Substructure.

Lift the Surface onto the Substructure and move this until you can see the T Nut fixings in the Substructure through the SECOND PAIR of Holes from the ON end of the beam. The FIRST PAIR of holes is for attaching the Access Paddles OR Low Beam Ramps.

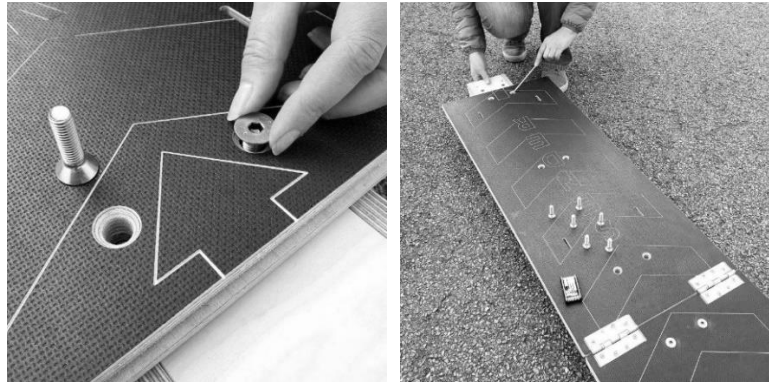
**VERY IMPORTANT:** You must AVOID CROSS THREADING THE T NUTS BY LOCATING THE BOLTS IN THE T NUTS BY HAND FIRST - THEN BY SECURING WITH THE ALLEN KEY!

Take 12 x M10 x 35 Countersink bolts. Place the bolts into the T nut fixings by hand first. Continue along the first half of the Substructure placing the Bolts through the Surface holes and into the T Nuts. Tighten these using the 6 mm Allen Key.





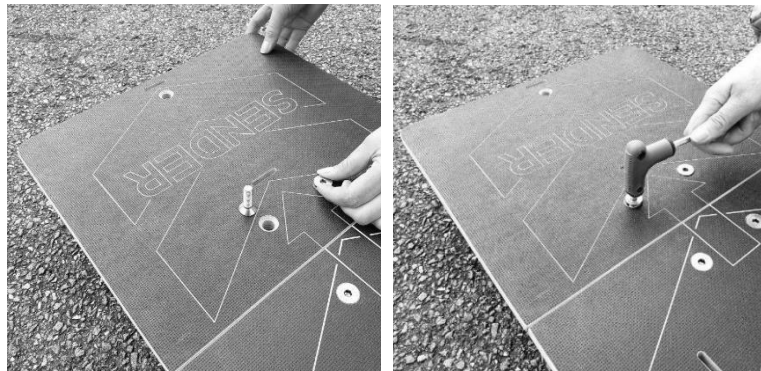
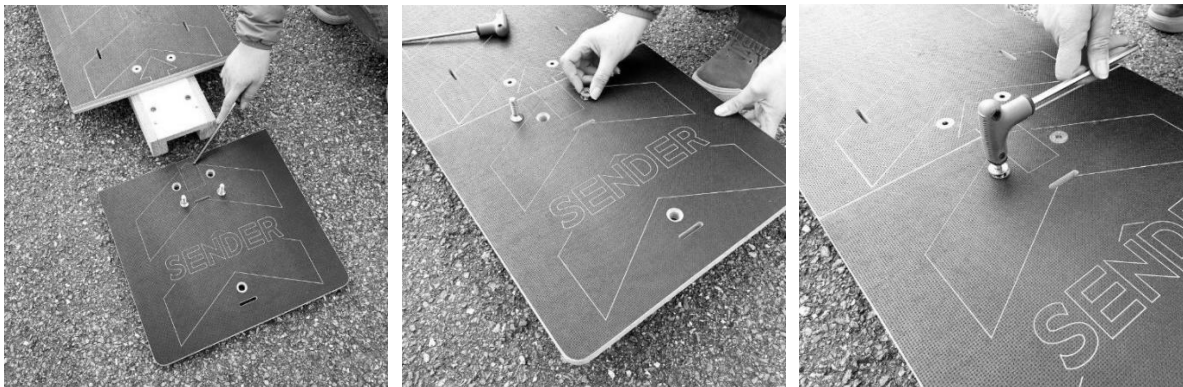
Align the second part of the Substructure with the Holes in the Surface and secure using the remaining M10 x 35 mm Countersink bolts.



### ATTACHING THE ACCESS PADDLES

The process is the same for Narrow and Wide Paddles. The Paddles have been designed so that the markings Complete an ARROW. The ON PADDLE has a TAIL that matches the ARROW HEAD on the Surface. Secure this with 2 x M10 x 35 mm Countersink Bolts.

Repeat this process at the other end. The OFF PADDLE has an ARROW HEAD to match the TAIL on the Surface! Fix with 2 x M10 x 35 mm Countersink Bolts. Tighten with the Allen Key.

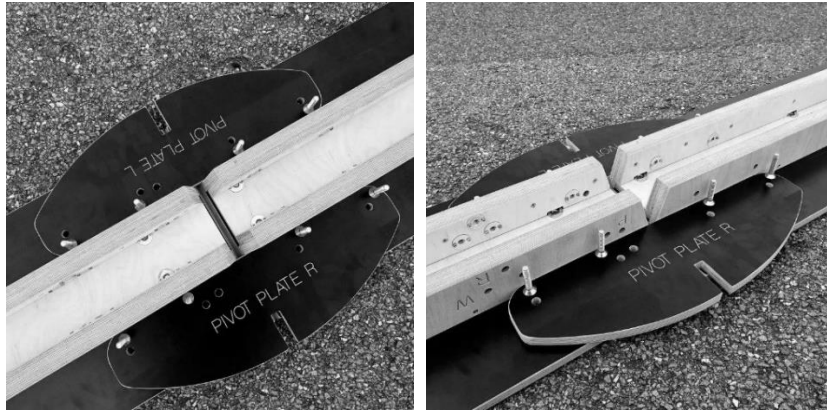


## INSTALLING THE PIVOT PLATE TO CREATE THE SEESAW

Protect the face of the Surface when it is turned over. Carefully turn the Substructure and Surface over so you can see the markings on the SIDES of the SUBSTRUCTURE. Take both LEFT and RIGHT PIVOT PLATES. Place these either side of the Substructure with the SMOOTH face against the sides. The + marking on the PIVOT PLATE should match the + marking on the Substructure.

The PIVOT PLATES are in the correct location when the P on the PIVOT PLATES and P on the Substructure align so you can see straight through the BEAM.

Place 4 x M10 x 50 Countersink Bolts through PIVOT PLATE L and 4 x M10 x 50 Countersink Bolts through PIVOT PLATE R. Locate the bolts by hand BEFORE tightening with the 6 mm Allen Key.



## BUILDING THE SEESAW TOWER

Lay the Seesaw Tower components on a flat even surface. Take ONE of the FANG Shaped (SS) batons and hold this vertically with the SMOOTH face inwards. Take ONE of the Seesaw TOWERS and place this into the slot on the Fang baton. Take the SECOND FANG baton (SS) and place this into the other slot of the Seesaw Tower. Push firmly so all parts are flush with the ground. The SMOOTH faces of the FANG BATONS (SS) should face the MIDDLE.

Take the SECOND Seesaw TOWER and place this onto the slots on the FANG BATONS. Push firmly so all parts are flush with the ground.

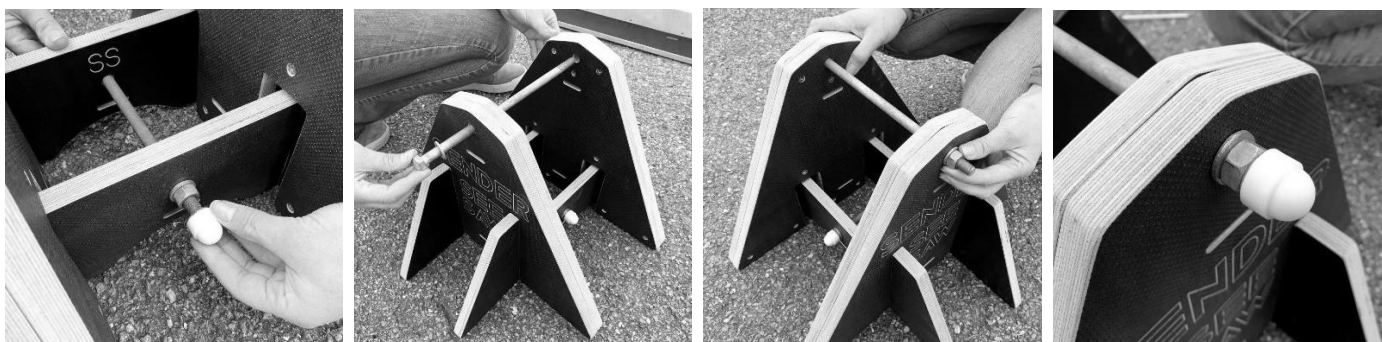


Take 1 x 200 mm Galvanised M12 Bolts with 2 Washers, 2 Nuts and plastic cap. Place a washer over the end of the bolt and then push this bolt through both FANG (SS) Batons. Fit a second washer and then one of the Nuts and tighten with your fingers. This will pull / hold the batons in place. This nut should be tight enough to prevent the Batons from falling out. CONDUCT A TEST!



Wind the second nut onto the Bolt to lock the first nut in place. Use the Plastic Cap to cover the Bolt end. Take the Long Galvanised Bolt and place this through both the holes at the top of the Seesaw Tower. Make sure there is a washer on the outside face of each Tower as shown.

The Seesaw Tower is now ready for use.



### INSTALLING THE SURFACE AND SUBSTRUCTURE TO THE SEESAW TOWER

We recommend that TWO people complete the next stage. Remove the Bolt at the top of the Tower and place this within reach. Lift the Surface and Substructure onto the Tower and Slide the PIVOT PLATE between the TOWERS. Align PIVOT POINT P on the PIVOT PLATE with the Holes on the TOWER as shown. Push the Bolt through ALL COMPONENTS. Secure this Bolt with a Washer, THEN a Nut. This should be wound FINGER TIGHT so that the Seesaw “PIVOTS/ ROTATES” and returns to the ground. You can ALTER the “return” speed by tightening or loosening the bolt. When the tension is correct. Use the SECOND Nut to lock the first nut in place and then cover the bolt end with the Plastic Cap.



**WARNING:** The Seesaw is not PLAY EQUIPMENT. It is NOT designed for two humans at either end. It must only be used by one Rider ON A BIKE at any one time.



## USING THE SEESAW REST

The Seesaw Rest allows you to create a challenging TIP to HIGH Beam Scenario. The Rest should be opened to 90 degrees so that the load is shared between the Hinges and the rope. Please adjust the rope as it stretches so that it continually supports the Hinge Point.

Simply place / align the REST under the beam so that the Seesaw Substructure connects with the centre of the REST when it falls forward. The rider can then Drop Off the end, or Powered Drop Off the Beam. Placing a 200 Ramp at the end of the Seesaw will reduce the drop height.



## INSTALLING THE PIVOT PLATE TO CREATE THE WAVE

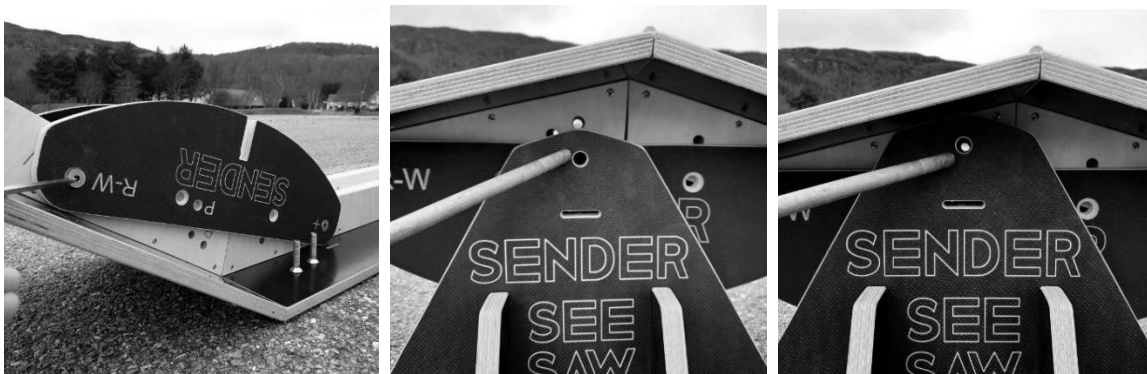
Place the Surface and Substructure on a flat even surface. Protect the face of the Surface. Remove all of the Bolts EXCEPT the Bolts in holes marked + on each side. We recommend two people complete this stage. Lift the Structure by the Paddle (at the end) articulating the Beam in the middle to close the ANGLED Join.



Align the Hole R-W on the PIVOT PLATE with the Mark "W" for WAVE on the Substructure Side. You may need to lift or lower the beam a little so you can see a clear hole to place the bolt. Place 1 x M10 x 50 mm Countersink Bolt through the PIVOT PLATE at Point R-W into the T Nut on the Substructure side and tighten by hand first BEFORE winding with the 6 mm Allen Key.

Do not tighten this first bolt. Place a second M10 x 50 mm Bolt through the R-W hole on the other PIVOT PLATE into the T Nut marked "W" for WAVE. Tighten both these bolts and THEN tighten the Bolts Marked +

Please check ALL Bolts before proceeding.



Turn the Beam over and place the PIVOT PLATE between the sides of the TOWER. Align the holes in the Tower with the PIVOT POINT hole on the Substructure. This stage is easier with two people.

**Important! Please note that the Bolt DOES NOT go through the PIVOT PLATE in WAVE MODE. It only goes through the Substructure sides.**

Take the Long Pivot bolt and push this through ALL Components and Secure ALL Components in place using the Washer and nut. Lock the Pivot Bolt with the second nut and cover the thread and nut with the PLASTIC CAP.



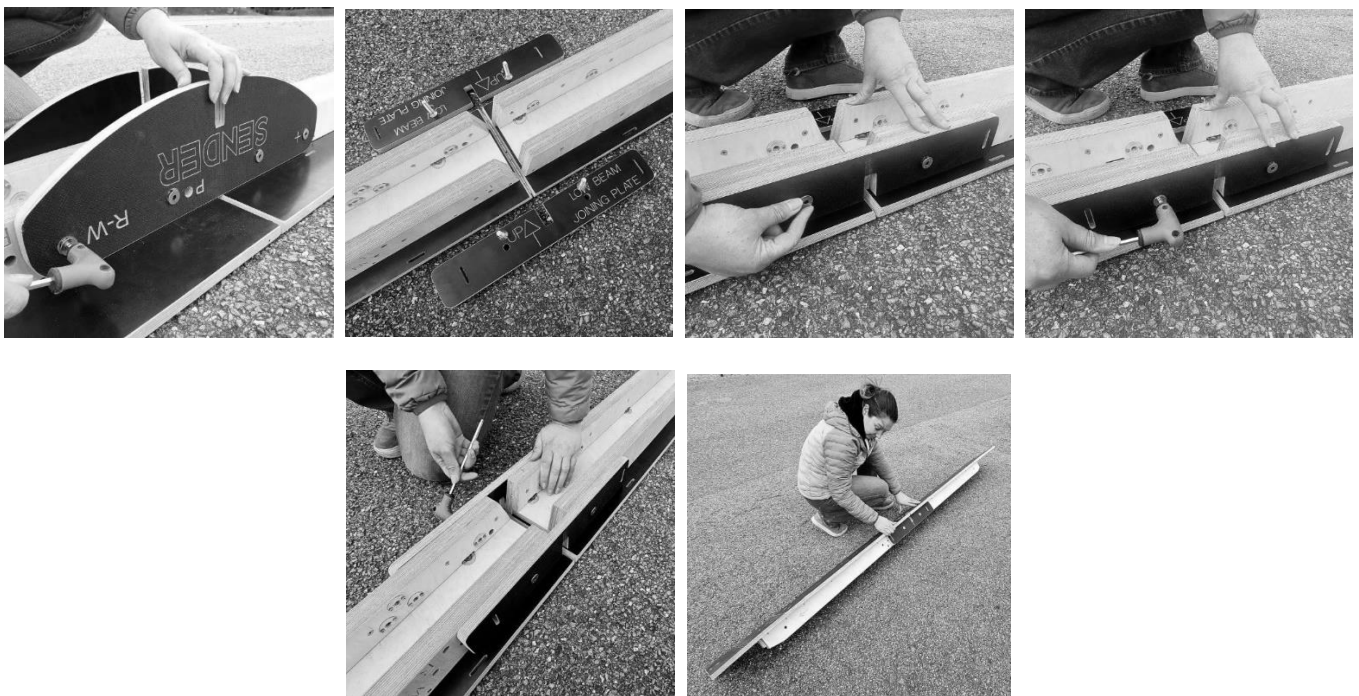
### CREATING A LOW "NARROW SURFACE" BALANCE BEAM

FIRST Install a NARROW SURFACE!

Creating a LOW Narrow Surface Balance Beam is different from creating LOW Wide Surface Balance Beam.

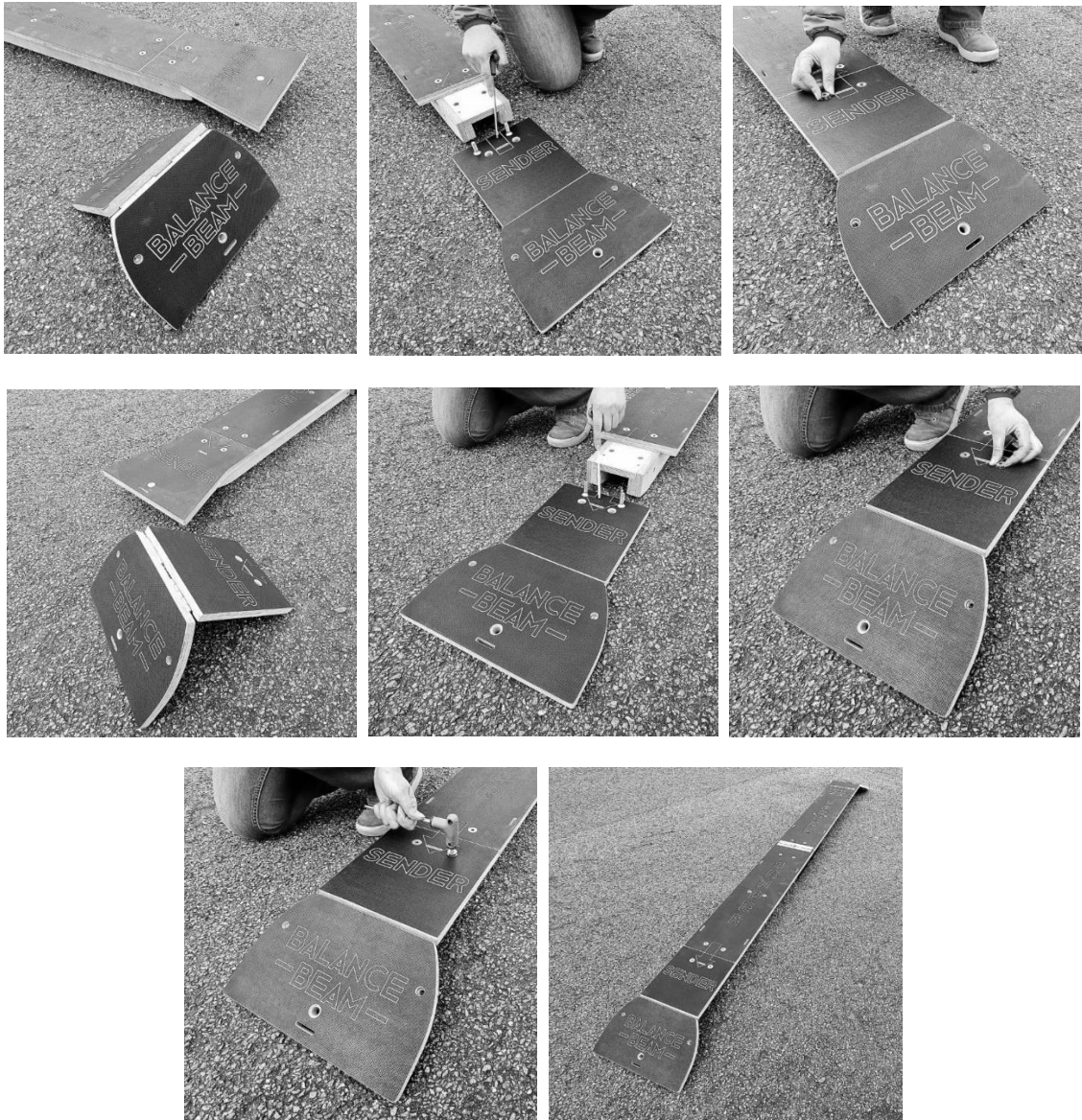
Carefully turn the Surface over. Remove the PIVOT PLATE on both sides. Take the two LOW BEAM JOINING PLATES and place these either side of the Beam. The UP Arrows should face INWARDS. The SMOOTH face sits against the sides of the Beam. Place four M10 x 50 mm Countersink Bolts into the holes on both sides. Tighten by finger then use an Allen Key to secure the plate to the beam.

Turn the Beam Over so the Surface faces UP.



### INSTALLING THE NARROW LOW BEAM PADDLES

In LOW NARROW BEAM Mode you MUST use the NARROW LOW BEAM PADDLES. Remove the ON Paddle from the Beam. Take the "ON" LOW BEAM paddle with the TAIL. This matches the ARROW on the surface! Secure this Paddle to the substructure. Remove the OFF Paddle. Take the "OFF" NARROW LOW BEAM paddle with the ARROW HEAD and secure this to the substructure. Check and Tighten ALL BOLTS. The Balance Beam is now safe to use in LOW NARROW MODE.



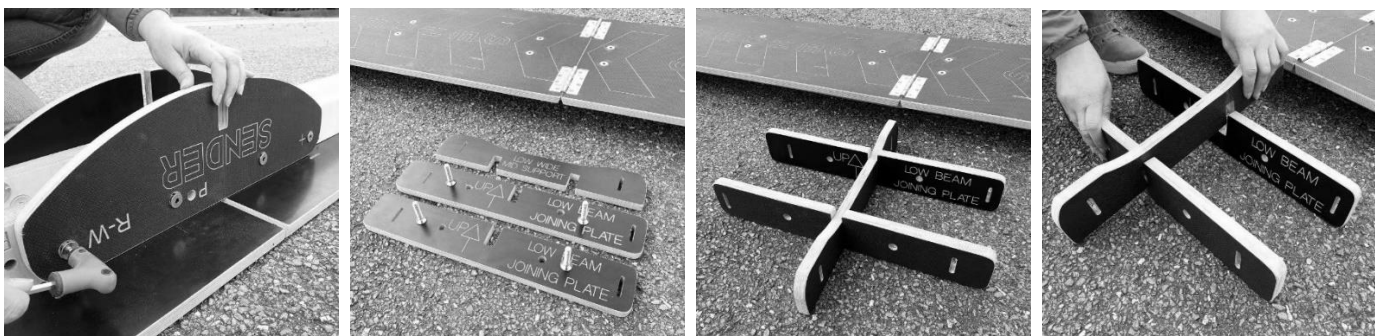
## CREATING A LOW "WIDE SURFACE" BALANCE BEAM

FIRST Install a WIDE SURFACE!

Creating a LOW WIDE Surface Balance Beam is different from creating LOW NARROW Surface Balance Beam.

Carefully turn the Surface over. Remove the PIVOT PLATE on both sides. Take the two LOW BEAM JOINING PLATES and the LOW WIDE MID SUPPORT. Assemble these components. Stand the LOW BEAM JOINING PLATES on EDGE so the ARROWS on the SMOOTH face point UP. The slots should also face UP. Take the LOW WIDE MID SUPPORT component and push this into the slots on the Joining plates.

Carefully LIFT and turn the JOINING PLATES and MID SUPPORT OVER. The MID SUPPORT fits into the V Angle of the Substructure. The JOINING PLATES should slide into place TRAPPING THE MID SUPPORT. If the MID SUPPORT falls out when you turn the beam over it has been installed incorrectly. Use 4 x M10 x 50 Countersink bolts to secure and fix the beam and support.





Take one of the LOW WIDE END SUPPORTS and unfold the legs. Place this over the end of the Substructure as shown in the picture. The FLAT EDGES should face up during assembly. The CURVED EDGES should face the UNDERSIDE OF THE SURFACE. Use 2 x M10 x 50 Countersink bolts to hold the LOW WIDE END SUPPORT in place.

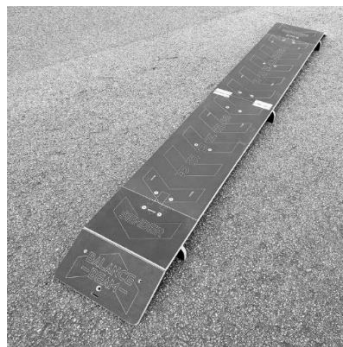
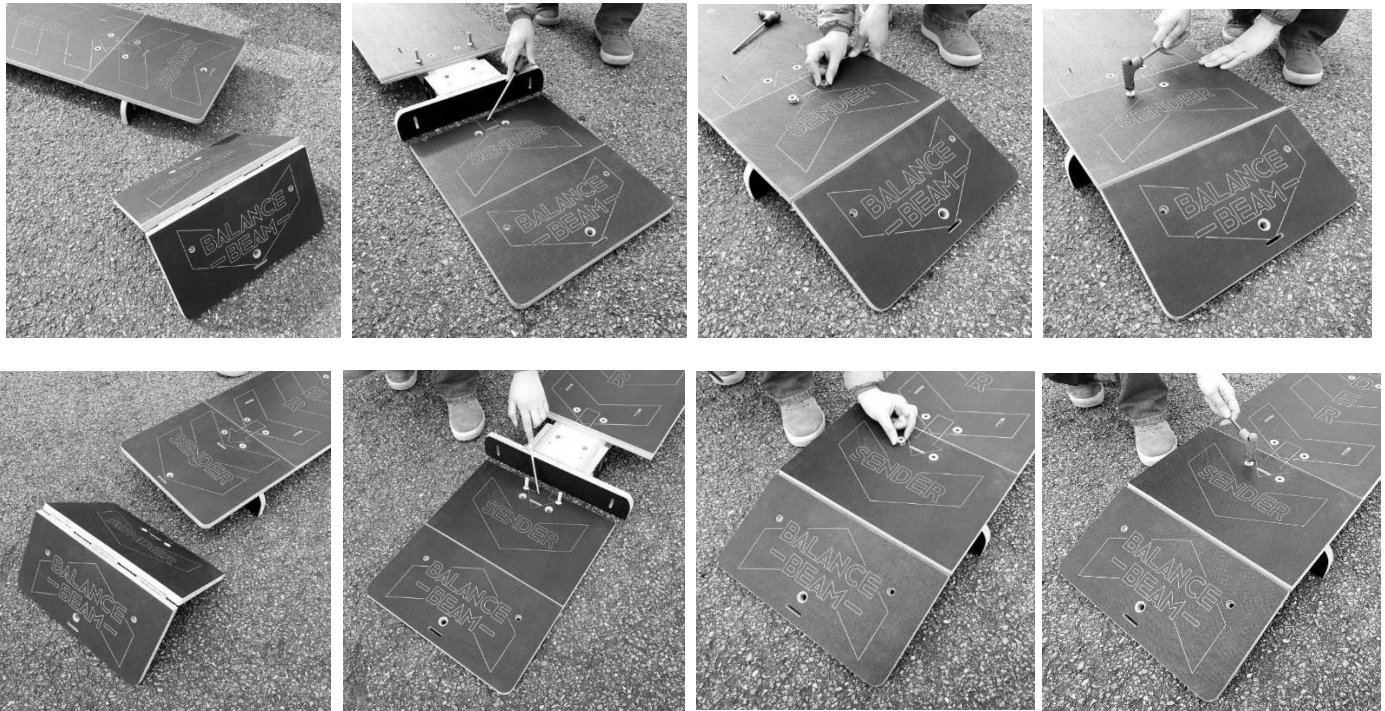
Repeat at the other end of the beam. Check and tighten all bolts and then carefully turn the Balance Beam over ready to change the Paddles.



### INSTALLING THE NARROW LOW BEAM PADDLES

In WIDE LOW BEAM Mode you MUST use the WIDE LOW BEAM PADDLES. Remove the ON Paddle from the Beam. Take the "ON" WIDE LOW BEAM paddle with the TAIL. This matches the ARROW on the surface! Secure this Paddle to the substructure.

Remove the OFF Paddle. Take the "OFF" WIDE LOW BEAM paddle with the ARROW HEAD and secure this to the substructure. Check and Tighten ALL BOLTS. The Balance Beam is now safe to use in LOW WIDE MODE.



### CREATING A NARROW OR WIDE 200 mm HIGH BALANCE BEAM

FIRST install a Wide or Narrow Surface to the Substructure. In 200 HIGH Mode you must use the SOLID Standard Paddles. You will need ONE or TWO "200" HIGH Straight or Curved Ramps to access the top of the beam. You can ROLL ON – DROP OFF OR ROLL ON - ROLL OFF the beam.



Install The PIVOT PLATE or if the plate is installed LOOSEN the bolts so the sides can move. Take one of the 200 FANG Supports and push this into the slots on the Pivot Plate. Tighten the Bolts to trap and hold this support.

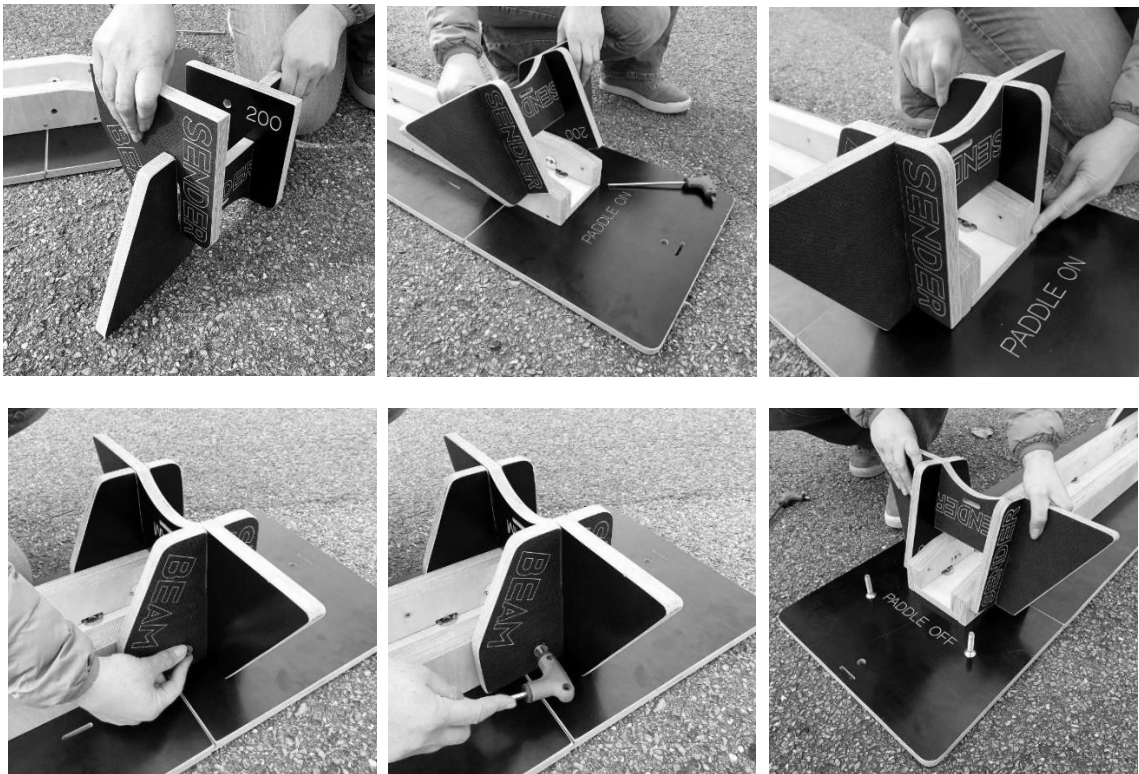


Please NOTE that the FANG Support will strike the bottom of the Surface. It is normal that the Curve on the Pivot Plate IS NOT FLUSH with the bottom of the FANG Support.



Take another FANG Support and TWO of the 200 SENDER Beam plates. Push these into the slots on the FANG. It is important that the vertical faces are on the SAME Side and the SMOOTH faces are inside. Place this Support over the end of the Beam. The Vertical faces of the support and the end of the Substructure should be FLUSH as shown. Fix the support in place using 2 x M10 x 50 Countersink Bolts. One on each side.

Repeat at the other end of the Beam. Check and tighten all bolts.





Carefully turn the Beam over. You have now created a NARROW or WIDE 200 HIGH Balance Beam. It is possible to join One or MORE beams together using our SWIVEL PLATE. You can join Narrow to Narrow / Wide to Wide or Wide to Narrow. The SWIVEL allows you to change direction at the join by creating an angle between the beams!



### BEAM SWIVEL and WAVE COMPONENTS IN ACTION

We also have a Special WAVE Component that allows you to join two SEESAWs together in WAVE MODE!



You can get expert advice at Sender. Do not hesitate to contact us. You can also order replacement parts. This is environmentally friendly and keeps you rolling.

Please subscribe to our YouTube Channel Sender Ramps for notifications when we upload new films. If you need advice or help please contact us direct [support@sender-ramps.com](mailto:support@sender-ramps.com)