



MOUNTING CHECKLIST

HOPPER

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1 - CHOOSING THE RIGHT BLADE

Hopper is available in two different build heights, the **Audacieuse (minimum clearance of 24 cm)** and the **Intrepid (minimum clearance of 19 cm)**. Each model is available in 5 categories of stiffness, from XS to XL. The XS is the most flexible or soft and provides more comfort, the XL is the most rigid and stiff and provide more dynamism..



How to choose the most suitable blade?

To choose a suitable blade, you must make sure you understand the need. The table below gives a first indication of the intensity of the practice and the weight of the user.

Weight	Lbs	77-100		101-121		122-148		149-172		173-199		200-242	
	Kgs	35-45		46-55		56-67		68-78		79-90		91-110	
Activity level		1/2	3	1/2	3	1/2	3	1/2	3	1/2	3	1/2	3
Audacieuse	> 24 cm*			XS	S	S	M	M	L	L	XL	XL	XL
Intrepide	> 19 cm*	PXS	PXS	PXS	PS	PS	PM	PM	PL	PL	PXL	PXL	PXL

Activity level: 1 = Low intensity / 2 = Medium intensity / 3 = Very high intensity (sprint)

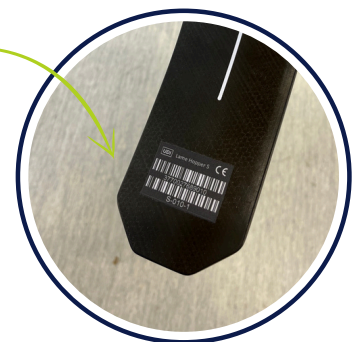


***Minimum clearance:** distance between the ground and the bottom of the socket on the walking prosthesis with shoe.

FOR BILATERAL PATIENTS: Increase by one category for added stability.



The stiffness level of the blade is written **at the top under the blade or on the blade when you remove the outsole**. Refer to the table above to choose the suitable blade!



TOP TIPS

If the user wishes to use the blade for **support sports, trail running (unstable terrain) or hiking**: use a **more flexible blade**. Flexibility facilitates changes of direction and control.

For the user who is a **femoral amputee and who is running for the first time**: use a **softer, more flexible blade**. Flexibility provides comfort and makes it easier to walk.

2 -

ASSEMBLING AND MOUNTING THE BLADE

Placement of the outsole



Turn the Velcro over on itself to **prevent it from catching on the blade.**



Push the blade in as far as possible.



Tap the tip with your hand until it is perfectly adjusted to the blade. **You should not be able to bend the front of the sole!**

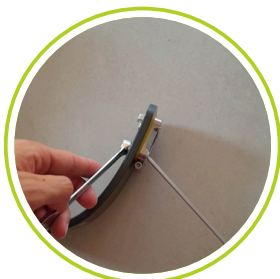


Do not pull the tabs, otherwise you may tear them! Favor pushing from the front rather than pulling!

Setting up the plate



Loosen the rotation tightening screw as much as possible.



Loosen the 4 screws on the plate before installing the appropriate pyramid.



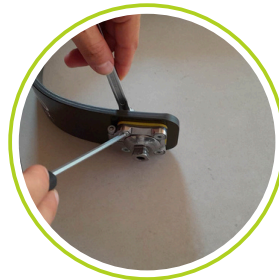
Position the appropriate pyramid (male or female).



Tighten the 4 screws of the plate before starting the test. **Not too much to still be able to turn the pyramid.**



Adjust the rotation and tighten the rear screw to validate the position. (torque: 9Nm)



Once the dynamic adjustment has been optimized, **remember to tighten the 4 screws of the plate to 9Nm.**



Do not force the pyramid into the plate.

3 - HEIGHT ADJUSTMENT

It will be necessary to adapt the static blade height adjustment to the activity desired by the user. Depending on the intensity of the activity, the blade should be adjusted higher or lower to compensate for the bend in shape.

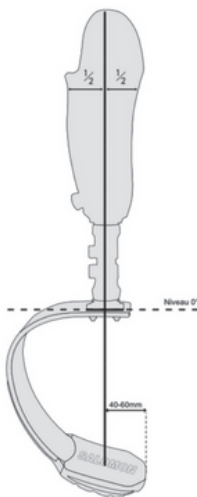
You can follow the instructions below for initial adjustments:



Fitness walking	+2 cm compared to the walking prosthesis for below-knee amputees. +0 cm for above-knee amputees.
Moderate running	+3 cm compared to the walking prosthesis for below-knee amputees. +0 cm for beginners above-knee amputees.
High intensity running	+5 cm compared to the walking prosthesis (no difference between AK and BK amputees)

4 - ALIGNMENTS

In the sagittal plane



The blade must be positioned with the plate **parallel to the ground**.

The weight line must pass through the following three points: the middle of the socket, the middle of the pyramid and finally the O of SalOmon.

External rotation

For initial adjustments, set a 5° external rotation, then adjust according to the user's feelings.

In the frontal plane



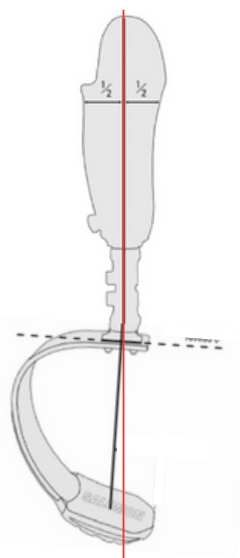
The sole must lie flat on the ground and in the part where it is thickest to provide maximum comfort and control.



For above knee amputees, please follow the manufacturer's instructions for adjusting the prosthetic knee.

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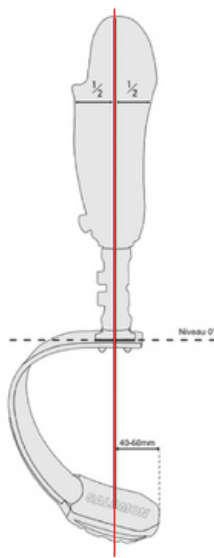
DYNAMIC SETTINGS



If the outsole slaps too much on the ground or feels like falling backwards during the run



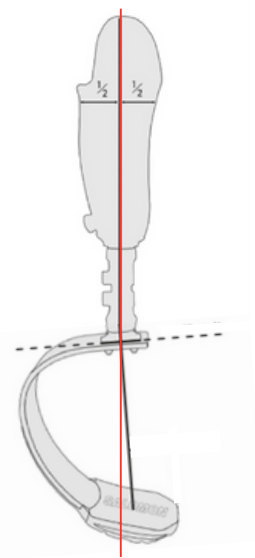
Adjusting the blade more "on the toe" (tightening the rear screws of the connecting parts) will **increase its flexibility and its height**. This setting will be more dynamic!



If you feel empty or fall forward while running



Adjusting the blade more "on the heel" (tightening the front screws of the connecting parts) will **increase its stiffness and reduce its sensation of height**. This adjustment will allow you to mow less and improve the sensation of unrolling!



Setting on the toe

Basic setting

Setting on the heel

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TIPS & OPTIMIZATIONS

First tips:

- Observe patients from the front, not from the back.
- Focus solely on the stance phase for adjustments.
- Increasing speed generally requires increasing the external transverse rotation of the blade.
- Be attentive to any noise.
- Listen to the patients' feedback on their sensations.

Below-knee amputee

Observations and Adjustable Parameters:

- Is the compression appropriate? (Patient feedback + observation of hip and shoulder symmetry)
- Is the propulsion vertical? (Sagittal plane)
- Does the blade land flat? (Frontal plane)
- Is the opening angle correct? (Transversal plane)
- Are there any reported pain points? (Patient feedback)

Above-knee amputee

For above-knee amputees, initial tips to overcome apprehension:

- Never try to stop on your prosthetic leg; instead, use small hops on the intact leg to come to a stop.
- The blade should always be positioned in front of you to avoid any unexpected knee unlocking. Therefore, focus on extending the blade as far forward as possible with each step.
- The upper body should be leaned as far back as possible, as this will facilitate the forward swing of the blade and reduce the risk of tipping forward.

Recommendations:

- While training, provide support by allowing the user to hold on to the trainers forearms, with one trainer on each side for even support.
- Avoid locking the prosthetic knee to get used to the “clawing” movement and to have the best running habits.

Observations and Adjustable Parameters:

- Is the compression adequate? (Patient reference + observation of hip and shoulder symmetry)
- Is the dynamism optimal? (Sagittal plane)
- Does the blade land flat? (Frontal plane)
- Is the alignment correct? (Transversal plane)
- Are there any pain sensations? (Patient reference)
- Are the blade and knee well aligned on the same axis?
- Is the knee position suitable to minimize unintentional unlocking?

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FIRST STEPS

Below-knee amputee

STEP 1

KNEE-LIFT

by walking in place

Exaggerate the rise of the knees in place, **slowly** so as to lean on the blade.

The blade should not point forwards or backwards, but only upwards. There should be no abnormal pressure points in the socket.

STEP 2

KNEE-LIFT

by jumping in place

Hop alternately in place.

Gradually increase the support time on each side. Don't hesitate to **vary the amplitude** of the jump in width or height.

STEP 3

KNEE-LIFT

moving forward

When static, the blade is set higher, which helps achieve the correct alignment of the pelvis when running, as the blade will compress while loading..

Remember to **stand up straight, looking far ahead**, and **use your arms** to improve your balance.

STEP 4

RUN

at jogging pace

Exaggerate the knee rise on the prosthetic side. Follow the above instructions: **stand up straight, look straight ahead, use your arms** and **raise your knees** to avoid stumbling.

Above-knee amputee



When using a sports knee, there is no safety system, so the risk of falling is higher than when walking. If using a microprocessor knee reference manufacturer's recommendations for running/jogging.

Here are some recommendations to limit the risk:

- **To stop:** jump up, do a few foot stomps on the intact limb until you regain your stability and have reduced your speed.
- **Keep the blade in front of you**, in your field of vision, and far ahead.
- **Stay tall and upright**, keeping your shoulders in line and your body weight back in relation to your knee.

STEP 1

CLAWED MOVEMENT

in place

This helps you understand how the prosthetic knee functions during running. This exercise can be performed while standing for greater stability.

You need to reach **full extension of the knee** before the ground contact phase (imagine kicking a ball to reach full extension), then **claw the ground** with the blade.

STEP 2

CLAWED MOVEMENT

by moving forward

This time, generate a **walking movement** by projecting the pelvis forward.

Look far ahead, straighten up and **use your arms** to improve your balance.

STEP 3

RUN

by moving forward

Start running, following the instructions above: **stand up straight, look straight ahead, use your arms and claw with the prosthesis**. Remember to kick out for knee extension and extend the hip at heel strike (claw the ground).

8 - DISASSEMBLING THE BLADE

Remove the outsole



Release the Velcro and use the edges provided to remove the sole.



Do not pull on the tabs, otherwise you risk tearing them! Pull from the front as shown in the photo!

Remove the pyramid



Loosen the 4 screws of the plate and the rear screw to be able to remove the pyramid without risking to damage the parts.



Do not force the pyramid into the plate.



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