



GO FAST GUIDE

BAT Logic Product Guide

*Gain Speed & Reduce Injury - find your best with BAT Logic
4 Olympic Gold Medals London 2012, 170 + World Medals*





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"The Bat Logic ShoePlate Pro has been an integral part in helping us to optimise the in boat set up for the AUS Women's Pair through the games."

**Bill Tait Australian Olympic silver medal winning coach.
W2- at London Games 2012**

PRODUCT DESCRIPTION

BAT Logic equipment is the gold standard in boat fittings. Your equipment should be designed for your body to help you reach your maximum performance potential. Performance is for every athlete.

Speed

Designed with biomechanics, anatomy and rowing experience. BAT Logic's light weight equipment is at the cutting edge of rowing performance and will give your stroke the boost it needs to improve power, efficiency, consistency and speed.

Injury Reduction

BAT Logic's in house sports medicine and performance experts analysed the most common rowing injuries and designed equipment to support your body through all phases of the stroke, with a focus on the feet, legs and spine.

Personalisation

All athletes are unique - BAT Logic recognises that one size does not always fit all and have created a system of customizable products to tune any boat or ergo to your needs. With a world first, lightweight cleat system you can now easily click from seat to seat and seat to ergo to carry your settings with you anywhere you row.

The Latest Rowing Technology:



With the new ShoePlate Pro QuickRelease you can carry your own settings with the CustomPack and change from seat to seat-boat-ergo.



ShoePlate Pro QuickRelease

The ShoePlate Pro was used by crews that won 4 Gold and 3 Silver medals at the London 2012 Olympic Games and has been a key performance piece for the world's top rowers, schools and clubs.

The ShoePlate Pro QuickRelease is a new innovation - bringing upgraded biomechanics from the regular ShoePlate Pro and adding a QuickRelease feature that allows you to move from seat to seat-boat-erg and back again with your Plates and shoes. Your settings any time, anywhere and no more sharing shoes! The ShoePlate Pro QuickRelease is the red footplate between your Nike Omada shoe and the boat footboard. It now has a BasePlate that always stays attached in your boat.

The ShoePlate Pro QuickRelease has a small and large size to suit all rowers and boats. Small for shoe sizes 6-9, Large for 10-16. Every rower will get an advantage with the ShoePlate Pro QuickRelease.

The Shoe Plate Pro's shape and function have come from years of research and development focusing on performance gain and injury reduction. It is lightweight and designed with performance biomechanics to enable everyone to achieve a benefit over a standard flat board.

The ShoePlate has a 7 degree wedge at the toe and a 4 degree wedge at the heel, this shape gives your foot maximum connection and stability, and helps tap into your most powerful leg muscles.

ShoePlate Pro QuickRelease key features are:

- 7 degree rise with toe wedge
- 4 degree rise with heel wedge
- Standard drill pattern
- Light weight
- QuickRelease feature for seamless seat changes and more
- Designed in conjunction with Nike Omada- a perfect fit





ShoePlate Pro QuickRelease

Personalised Settings - For All
change seats and ergs in seconds, always keep your settings and shoes



Greater stability

Greater stability for your feet, giving you better body and boat balance as well as reducing your stabilizing muscles' need to contract. Decreased body strain and improved pelvic position. This leads to reduced injury.

Improved connection

Improved connection between the rower and the boat throughout the stroke due to a higher percentage of the foot being in contact with footboard. This gives you better feel and control.

Enhanced and earlier heel loading

Enhanced and earlier heel loading, allowing for greater percentage use of gluteal and hamstring muscles and more efficient firing. This will mean more power.

Due to: The 7 degree toe wedge creates tension in the foot to give a more stable and stronger lever. The 4 degree heel wedge gives a better heel platform.

Due to: The overall shape of the ShoePlate Pro QuickRelease ensures the foot has a greater percentage of contact with the footboard, giving more connection.

Due to: The 4 degree heel wedge encourages earlier heel loading.

Increased speed, reduced injury risk, improved use

Performance Gain



ShoePlate Pro QuickRelease - Design Explanation

TOE WEDGE

There is a 7 degree toe wedge on the ShoePlate Pro QuickRelease. This is important as it helps to spread your metatarsals and phalanges (middle foot to toes). The foot is a similar structure to the hand, in that it has many joints and muscles that all act individually unless the hand/foot is under load and stable e.g. spreading your fingers out. When all the joints and muscles in the foot are working individually, this creates a poor force transferrer or poor lever on the footboard where you are trying to apply power. By adding some tension in the foot you create a stiffer, more stable and power effective platform.

If you wiggle one finger on your relaxed hand you can feel how it is very mobile and each joint moves in its own way. Now spread the fingers on your hand out like a star and you will feel and see how much stronger and stiffer the hand and fingers become - this makes it a better lever for transferring force. This is the exact effect that the toe wedge on the ShoePlate Pro QuickRelease gives the foot. As the toes are spread and some muscle tension is put on the foot, it too becomes a more efficient lever. This gives a more solid position at the catch and improves force transfer. It also reduces fatigue by increasing the stability of the foot, requiring less need for muscle contractions to adjust for its positions in the stroke.

The toe wedge is also important for connection and feel. It allows the foot to maintain connection with the footboard and stay stable at each point of the stroke, especially the front and back end. This eliminates the 'on', 'off' and 'on' again feel that many flat boards give through the rowing stroke cycle. By doing so it gives more feel, confidence and less chance of a poor finish position/poor timing, while allowing a strong and connected leg drive from the catch.

HEEL WEDGE

The feature of the ShoePlate Pro QuickRelease that gives most of the power advantage is the 4 degree heel wedge. This also allows you to contact and load the heel earlier, for more stability and better connection, however its key role is to allow you to produce greater power.

On current flat footboards most people are very high up on their toes at the catch and they are only getting heel connection 3/4 of the way, maybe later into their leg drive. If the average leg drive portion at race pace takes approximately 0.55 seconds then this means you are only connecting the heel for just over 0.1 seconds in the strongest part of the drive phase.

Heel contact and loading is so important, as this is the only time you are able to use your hamstring as a hip extensor (to drag your leg down) and it produces a far higher percentage of gluteal, quadricep and hamstring muscle firing. This increased firing with heel loading has been illustrated through EMG testing (recording of electric activity/firing in muscles) at Olympic federations. The point at which the heel makes contact and applies its maximum force is also, in most cases, roughly where maximum force occurs in the stroke. So if you can load the heel for longer and earlier the result is; a more powerful stroke and a stroke that creates more power earlier in the drive- something we can all use.



ShoePlate Pro QuickRelease

FREQUENTLY ASKED QUESTIONS

Q.What is the difference between the ShoePlate Pro QuickRelease and standard flat board?

Attribute	ShoePlate Pro QuickRelease	Standard Flat Board
Foot contact	<ul style="list-style-type: none"> • Higher % foot contact throughout stroke due to heel and toe wedge • Helps with feel, stability and reduced injury risk 	<ul style="list-style-type: none"> • No support for the foot structure through the stroke. • On-off feeling at different points
Heel contact	<ul style="list-style-type: none"> • 4 degree heel wedge to help earlier, more stable and stronger heel load • Heel connection occurs earlier and allows better muscle use and power 	<ul style="list-style-type: none"> • No specific heel support • Doesn't promote heel loading • Heel contact comes in approximately 3/4 through leg drive in most cases
Foot stability	<ul style="list-style-type: none"> • Shaped for foot stability and reduced stabilizer muscle use - leads to decreased fatigue • Improved contact and loading gives improved stability, boat balance and confidence 	<ul style="list-style-type: none"> • Often feels unstable • Promotes toe based contact only • No specific foot support
Body position	<ul style="list-style-type: none"> • Body is more solid due to better gluteal contraction and foot stability/connection 	<ul style="list-style-type: none"> • Body has to contract and compensate for lack of stability and toe based connection through stroke
Power	<ul style="list-style-type: none"> • Conducive to higher power outputs due to heel wedge and stability • Less taxing on the body as stabilizing muscles are needed less and injury risk factors are lower than a flat board if used correctly 	<ul style="list-style-type: none"> • Good power can be produced but is done so more through the toes and with less stability
Injury Risk	<ul style="list-style-type: none"> • Reduces injury risk factors by biomechanical and anatomically considered design • Increased stability and connection make for a safer base to produce power from- just like a good cycling cleat 	<ul style="list-style-type: none"> • Many injuries and injury risks recorded in rowing • Not designed biomechanically/anatomically like the ShoePlate Pro QuickRelease
Comfort	<ul style="list-style-type: none"> • Highly functional and designed specifically for comfort and performance 	<ul style="list-style-type: none"> • No specific fitment/comfort design. Just functional.
QuickRelease Feature	<ul style="list-style-type: none"> • Use your own shoes every time • Easily swapped between ergometer • Easily swapped with the boat 	<ul style="list-style-type: none"> • Slow and tricky adjustment of shoes and settings - you are stuck with generic setups or need to take time to adjust



Q. Will the toe wedge make me row short or stop me getting to my full catch position?

No, the toe wedge will give your feet more control and touch coming into the catch and create better stability when pushing off the catch. The centre of the foot is at the same angle as the footboard- so no difference.

As you would with a normal footboard; If you find it tight at the catch, either slightly reduce the foot stretcher angle or slightly lower the feet.

Q. How heavy is the ShoePlate Pro QuickRelease?

It is lighter than the current ShoePlate Pro at under 200gm.

Q. Will the earlier connection and increased gluteal, hamstring and quad load mean I fatigue faster?

No, in fact the opposite. The glutes, hamstrings and quads are all meant to be used as power producing muscles. They are designed to contract then switch off and repeat this powerfully, unlike the stabilizing muscles in the front and side of the shin that are designed to produce low power but contract over long periods of time. The ShoePlate Pro QuickRelease will reduce the use of stabilizing muscles to produce power and draw more on the major power producers via better stability, connection and the improved heel loading.

Q. Why are the angles 7 degrees and 4 degrees?

The shape and angles of the ShoePlate Pro QuickRelease have been specifically designed after years of research in biomechanics, anatomy and on water testing. They have proven their worth with 4 Golds in London and numerous other world medals as well as the research we have conducted with federations and universities alike.

Q What should I feel?

- Better connection*
 - Strong heel engagement*
 - Increased stability*
 - Possible hamstring and gluteal tightness and/or gym-type pain for the first 2-3 rows:
This is good as it means these muscles are working harder = more power & speed!*
- * Each of these will be different for all athletes.

Q. Is there an adaptation time?

Adaption is different for every athlete. We have tested over 1000 athletes at all levels, using the ShoePlate Pro and the longer you use it the greater the muscle adaption. Most athletes will have an instant change but to start changing muscular adaption and build gluteal firing it will vary enormously.



The longer you use it, the better the effects with muscle adaption - as seen with research on medal winning Olympic crews.



Q. How should I rig my new BAT equipped foot stretcher?

Base settings	
Angle:	Most foot stretchers are factory set at a standard 42 degrees*. (*Note the angle is taken off your boat's footstretcher not the ShoePlate Pro QuickRelease)
Height:	Factory standard settings can be adjusted to your comfort and body type as needed.
Stretcher Position:	You should rig yourself to achieve the same handle position at the finish or work through. The ShoePlate Pro QuickRelease is 8mm thick at the attachment point, so to achieve your normal position you'll need to account for the extra thickness and move your stretcher 2 notches towards the stern.

We recommend that initially you keep within the above range, unless uncomfortable. However, after testing hundreds of athletes we have found a number of different angle/height etc combinations work very well long-term. Your body and style will dictate what suits you best.





CustomPack

Nearly everyone will have a leg length discrepancy (>95% of the population) and many rowers are affected badly by this discrepancy. Leg length issues are linked to a number of common injuries including spinal, pelvic, rib and muscle overuse dysfunctions as well as steering and boat balance issues.

Used properly the CustomPack will give you performance gains and can reduce your risk of injury. It will do this by:

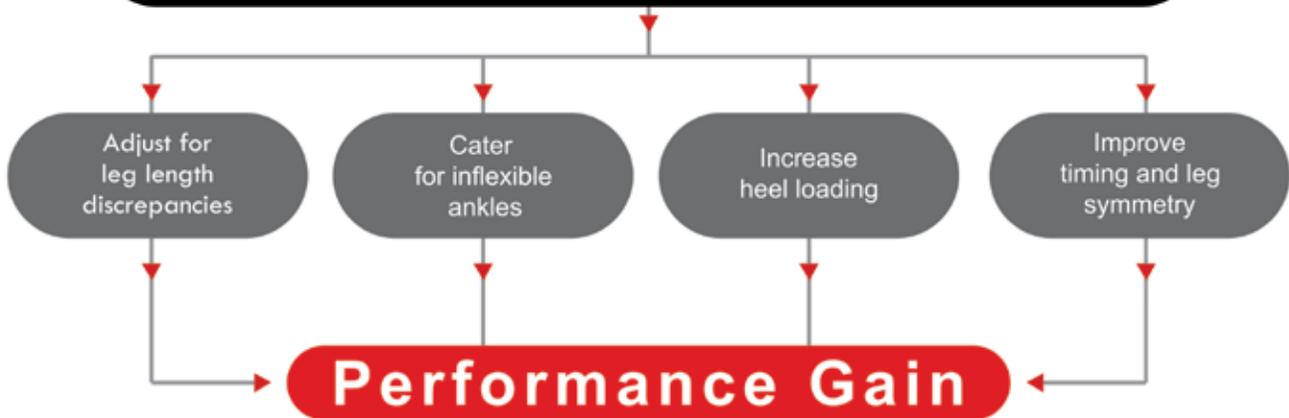
- Adjusting for leg length discrepancies
- Catering for inflexible ankles
- Increasing heel load
- Improving timing and symmetry between legs
- Improving comfort

The CustomPack consists of leg length shims and heel shims:

- 1 x 1.0 mm white leg length shim (CustomShim 1.0)
- 1 x 2.0 mm white leg length shim (CustomShim 2.0)
- 2 x 5.0 mm black heel shims (CustomHeel)



CustomPack - Performance Gains



White leg length shim fits onto the ShoePlate Pro QuickRelease



Black heel shim fits onto the ShoePlate Pro QuickRelease



CustomPack and Leg Length-Frequently Asked Questions

Q. What does the CustomPack (CP) do?

Used properly the CustomPack will give you performance gains and can reduce your risk of injury. It will do this by:

- Adjusting for leg length discrepancies
- Catering for inflexible ankles
- Increasing heel load
- Improving timing and symmetry between legs
- Improving comfort

Q. Why are the white shims not like my orthotics?

The white shims are one single width through their entirety, whereas your orthotics will have thicker and thinner parts, depending on their function, for controlling your foot movement. The reason for this difference is that the white shims are simply used for evening out leg length and need this consistent shape, whereas the control of your foot arch and contact with the footboard is done by the ShoePlate Pro QuickRelease - almost like a rowing orthotic. The ShoePlate Pro QuickRelease and shims have different curvature and shaping to your everyday orthotics because in rowing, The foot moves differently to the way it does when walking or running.



CustomPack and Leg Length-Frequently Asked Questions

Q. What are the white shims for?

White leg length CustomShims come in 2 sizes: 1.0 mm and 2.0 mm. The shims are placed under your shorter leg to even out your functional leg length in the boat - just like an orthotic or heel wedge does when walking or standing.

Q. What are the black CustomHeel shims for?

The black CustomHeel shims are for athletes with poor ankle flexibility or for those who want to engage even greater heel loading earlier in the drive phase. Black CustomHeel shims are good for athletes with a history of back injury. The black heel shim increases gluteal control on the pelvis and lower back. This control occurs when you load the heels i.e. more heel load equals better gluteal firing which means a more stable pelvis and lower back.

Q. How do I attach the black CustomHeel shim and white leg length CustomShim onto my foot stretcher?

The shims go between the Nike Omada and ShoePlate Pro QuickRelease. These products were designed to fit together perfectly. You will need to remove the Nike Omada and screw the appropriate shims between the ShoePlate Pro QuickRelease and Nike Omada.

Q. How do I know if I have the correct amount of shims under my leg?

Increase the accuracy by video taping yourself side on at the left and right side of the body while erging/rowing to see if one leg sits higher than the other, then adjust with the shim and see what difference this has made. Generally the higher leg will sit up higher. You can also have a trainer or health care professional measure your seated leg length on the erg at the catch and finish from the base footplate and observe your pelvis symmetry. Relying on your own body feedback is also useful.

Being tested on an Instrumented Foot Stretcher that measures the difference between left and right foot is the gold standard. Contact your BAT Logic rep if you are keen for this type of assessment.

Q. How do I know what white leg length CustomShim I need?

The two white leg length shim sizes are adequate for most leg length issues. You would never place a 1cm shim under a 1cm shorter leg- this is too extreme for the body to adjust to. The settings are always as least invasive as possible e.g. 8 mm longer right leg, 2.0mm shim may suffice to give you an adequate effect. The following table is an average case estimation based on our work with over 1000 athletes.

Measured Leg Length Discrepancy	CustomShim Indicated
1 - 4 mm	1.0 mm
4 - 8 mm	2.0 mm
8 - 15 mm	1.0 + 2.0 = 3.0 mm stack
15 mm +	Multiple shim pack

Shim choice will be dependant on cause and effect of the discrepancy. Guides are only relative and based on our consulting experience fitting these. If in doubt seek professional assessment.

To measure the effect of your shim choice it is advised you are re-measured on the erg/in boat from the base footboard up to your hips as well as looking at video again to identify any changes. Relying on your own body feedback is also useful.

Like any boat rigging change, the effects will take time to get used to and will become clearer with more use.

Q.How do I know when to use the black CustomHeel shim?

You should use this shim if:

- You are still struggling to get heel contact early enough, or at all, even with the ShoePlate Pro QuickRelease (this may be due to rowing style or in most cases very inflexible ankles)
- You feel that you would like a further heel wedge on top of the 4 degree heel wedge on the ShoePlate, to build even more heel use or support the heel more (may help in back injuries, achilles strains or other calf and ankle injuries)
- You would like to row on a very steep foot stretcher setting but still maintain early heel contact
- You wish to raise the height of the heel only, rather than the entire foot

Q.How do I know which black CustomHeel shim I need?

There is only one size of black shim available - a 5mm heel wedge.





Injury Prevention

The sport of rowing is fantastic for general body fitness and strength, with a huge number of muscles and joints being used for each and every stroke. With this however comes a large risk of injury.

The ShoePlate Pro QuickRelease, Nike Omada and CustomPack equipment has a direct positive effect on many of these injury factors.

The most common injury sites are:

- Spine - especially lower back
- Pelvic and SI Joints
- Ribs
- Forearms
- Shoulders

Apart from the obvious pain and long term effects, another serious issue is the amount of time off-water needed for many of these. The single biggest factor that affects an athlete's or crew's performance is injury.

Injuries in Rowing- Frequently Asked Questions

Q What is the most common injury?

The most prevalent injuries by far are spinal joint sprains and spinal muscle strains. The prevalence of spinal pain in rowers has been reported as high as 85% at the elite level. The seriousness of these injuries varies but the more severe injuries like disc herniation (commonly spoken of as a "slipped" or "torn" disc) and degeneration can end careers and have long lasting effects on an athlete's daily life.

Rib injuries are also fairly common with the incidence listed as between 10-12% of all rowers.

Q What are the most common causes?

Each injury will have numerous individual factors but the causative factors usually centre around overuse/overload on an unstable joint or a muscle that is not in a position to work well.

Factors that can influence this are: leg length discrepancies, poor functional control of the pelvis and spine, strength asymmetries, or poor foot stability, poor shoulder stability. In terms of spinal injuries it has been shown that 'asymmetries during the rowing stroke, particularly at the hips, can contribute to sub-optimal kinematics of the lumbar-pelvic region' (Buckeridge et al. 2012). It is also clear from studies on general spinal injuries, including those related to rowing, that gluteal control of the pelvis and lumbar spine has a large preventative role.

Table: Common injuries in rowing

Injury Risk Factors	Relevant BAT Logic Equipment	Effects
Lower limb instability	<ul style="list-style-type: none"> • ShoePlate PRO QuickRelease • CustomPack • Nike Omada • ErgAdaptor 	<ul style="list-style-type: none"> • Improve foot connection and stability by promoting a higher percentage of foot contact during all parts of the stroke • Allow more stable heel connection <i>See ShoePlate Pro QuickRelease and CustomPack</i>
Pelvic and lumbar instability	<ul style="list-style-type: none"> • ShoePlate PRO QuickRelease • CustomPack • ErgAdaptor 	<ul style="list-style-type: none"> • Promotes heel loading that leads to earlier, more efficient and more complete gluteal and hamstring firing • These muscles support the lower spine <i>See ShoePlate Pro QuickRelease and CustomPack</i>
Poor shoulder stability	<ul style="list-style-type: none"> • ShoePlate PRO QuickRelease • CustomPack 	<p>A more stable lower limb will help the athlete set their shoulder position!</p> <ul style="list-style-type: none"> • A greater use of the glutes will help strengthen the position of the middle spine, which the shoulders are attached to. <i>See ShoePlate Pro QuickRelease and CustomPack</i>
Poor muscle positioning while applying power	<ul style="list-style-type: none"> • ShoePlate PRO QuickRelease • CustomPack • ErgAdaptor 	<ul style="list-style-type: none"> • Greater heel use and stability allows muscles to work from a more powerful and stable base - just like a good squat position vs. a poor one <i>See ShoePlate Pro QuickRelease and CustomPack</i>
Leg length discrepancy/ asymmetry	<ul style="list-style-type: none"> • CustomPack • ErgAdaptor 	<ul style="list-style-type: none"> • Even out leg length discrepancies and allow a symmetrical base to push off in the stroke <i>See CustomPack</i>





Leg Length Information

As stated earlier, nearly all rowers will have a leg length discrepancy of some sort (>95% of the general population have this) and many rowers are affected badly by this discrepancy. This difference can vary from almost indiscernible to >20mm within the normal population, but what is the same for 100% of sufferers is that the differences will cause some sort of mechanical effect in the rowing stroke.

Effects of a leg length discrepancy

Leg length issues can have an effect on boat balance and can lead to a number of common injuries including: spinal, pelvic, rib and muscle overuse dysfunctions as well as steering. Some of these are amongst the most common and debilitating in rowing. When you row with uneven leg lengths you are pushing off an uneven base - just like if you were to squat with one leg on a step and one leg on the ground. This causes increased stress on the lower back and pelvis, as both will not be set on an even level. As a result, muscles will have to contract to compensate for this position, while joints are forced to move from a compromised posture. This will lead to a reduction in the force you can apply and, even more seriously - uneven forces will be transferred through the body.

How to correct leg length discrepancies

With the BAT Logic CustomPack, leg length differences can be remedied with an appropriate shim under the appropriate foot to even this discrepancy. Assessed and treated properly, this will ensure the hips are symmetrical from the catch to the finish, providing a stable and strong platform against which the upper torso can brace without putting undue stress on the lower back, ribs, knees and ankles.

Structural V's functional leg length discrepancy

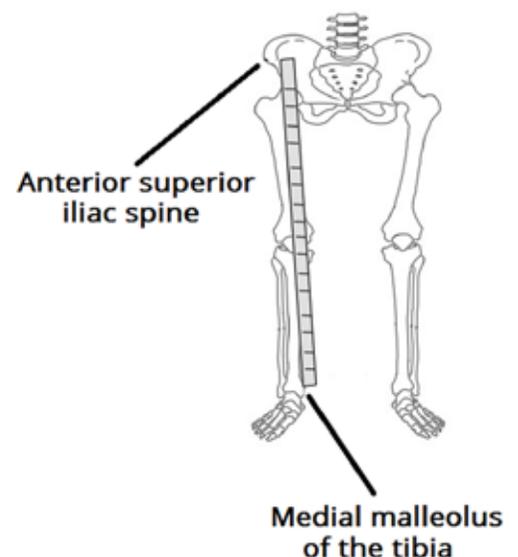
It should be noted that there is a difference between structural leg length discrepancies (an actual longer bone) and functional discrepancies (one leg appears longer while doing activities due to tight muscles, joint dysfunction etc). Even on an MRI scan or X-ray, functional discrepancies would be hard to pick up accurately. To fully understand these differences you must be analyzed while doing the activity of rowing or at least in a similar, seated position.

The most accurate functional leg measure method is using an Instrumented Foot Stretcher to measure force of each leg while rowing. If you are interested in a consultant from BAT Logic measuring this please contact BAT Logic.

Structural leg length measurement

You will be measuring from the bony point on the front of the hip (ASIS - anterior superior iliac spine), to the bony lumps on the inside/outside of the ankle (medial and lateral malleolus) as shown.

Take an inside and outside measurement in standing and sitting - this will give you a higher accuracy.



How to measure your leg length discrepancy and it's effects?

Get the difference in leg length measured by a health professional. Make sure you are measured in sitting and standing positions and that numerous measures are taken to increase the reliability of the measurements. You will be sitting in the boat when rowing so it's key that this is measured. You can increase the accuracy by video taping yourself side on at the left and right side of the body while erging or rowing to see if one leg sits higher than the other (the longer leg sits higher).

BAT Logic also offer gold-standard consulting for all types of leg length issues and other injuries and or performance problems, using an Instrumented Foot Stretcher (IFS). Please contact us if you are interested in this service.

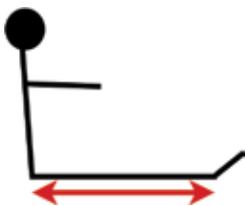
Five methods to check leg length:



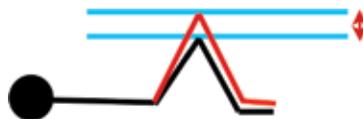
Health practitioner measuring 



 Check knee heights on ergo



Sitting measurement



Lying down measurement
Is one knee sitting higher than the other when lying on your back, feet together?



Standing measurement



Nike Omada



The Nike Omada is a high end rowing shoe of the highest performance capabilities of any shoe on the market. Nike is serious about helping you win, resulting in them building a top rowing shoe designed for Gold.

Features:

- Specific hydrophobic (water resistant) material, drainage and venting made for rowing performance and comfort
- Designed for rowing with power, function, comfort and your anatomy as a focus
- Lowered heel cup to decrease pressure on the achilles tendon at the finish
- A sole that is stiff and supportive but flexes where the foot needs to move
- Reactive load zones to improve power transfer
- Lowered cleat position to increase the percentage of foot contact with the foot stretcher through all phases of the stroke and to help with stability
- Double, wrap-around tongue to conform to the shape of the foot, add comfort and reduce foot slop. This Cements the foot into the shoe to give a stable platform
- Inner memory foam at heel to shape to your foot
- Strapping that is specifically designed to pull the foot onto the cleat position and support the foot's structure
- Metal fitting all stainless
- Fully shaped sole to interact with the ShoePlate Pro QuickRelease perfectly

Effects:

- More efficient performance and reduced injury risk with improved foot hold, support and connection.
- Greater ability to apply power with load zones and increased movement efficiency
- Improved comfort
- Great wear and tear - looks great now and in years to come



ErgAdaptor

The BAT Logic ErgAdaptor is a fully portable, strap on/off ergometer plate that easily attaches to any Model D/E or Dynamic ergo to provide you with all of the benefits of the BAT Logic in-boat equipment; Nike Omada, ShoePlate Pro QuickRelease and the CustomPack.

Features:

- Easy to use, simple to fit
- Fully portable, take it everywhere you row
- Clip on and off in seconds
- Legal to race at almost all indoor events
- Factory quality fit
- Allows in-boat foot stretcher setups on the erg
- Your ergo set up anytime, anywhere

Effects::

- More efficient performance and reduced injury risk with improved foot hold, support and connection. A key for ergo use.
- Greater ability to apply power
- Improved comfort and support - no slipping straps or loose connection
- Greater use of large leg driving muscles
- Adjustable for height and fully customisable with the CustomPack shims
- More specific training
- Enhanced and hastened longterm effects for in-boat ShoePlate Pro QuickRelease users





The BAT Logic Performance story

At BAT Logic we are passionate about helping you achieve your best. Our experts in sports science, sports medicine and performance gains are here to help. Our products and knowledge help people to achieve their goals and reach their full potential while reducing the risk of injury. We provide accessible performance gains for beginners right up to Olympic Gold medal winners. BAT Logic has analysed over 2000 athletes since our start in 2009. Our equipment has been involved in 170+ World Level medals, 7 Olympic Medals & numerous National Titles from schools and colleges making up the World's best rowing nations. 16 Olympic nations use the Shoe-Plate Pro. BAT Logic knows rowing. The newest rowing technology is fully Australian designed and made. Light-weight, quickly adjustable and able to be used in any boat or on the ergo for gains in performance and reduction of injury risk. As an athlete, your body is your weapon and BAT Logic want you fully armed to be your best.

Who works with BAT Logic products and consulting:

Olympic nations including:

GB, USA, CAN, AUS, NZ, ITA, DEN, NED, CZE, SLO, SUI, FRA

Colleges/Universities including:

Ohio, Virginia, Harvard, Yale, Washington, Stanford, Brown, University of San Diego, Scotch College Cambridge & Oxford Universities UK

Clubs including:

Vesper, California Rowing Club, Community Rowing Inc., Melbourne University BC, Mercantile BC

BAT Logic ShoePlate Pro Results:

- 2012 London Olympic Games
- 4 x Olympic gold medals
- 3 x Olympic silver medals
- 3x World best on-water times
- 5 Indoor based world records

2009-2015 World Championship medals

- Over 170 medals across World Cups and World Championships and counting!
- Multiple Oxford-Cambridge Boat Race winning boats 2012-2015
- 6 x Men's and Women's US National College titles
- Numerous AUS, NZ, European school, college and national titles

"At Rowing Canada we align ourselves with companies who continually innovate, like BAT Logic, to bring us the best equipment for performance impacts, which are so important at this level."

Rowing Canada Coach John Keogh, Olympic Silver 2012 W8+



Glossary

ShoePlate Pro QuickRelease: BAT Logic BasePlate - a red plate that fits between your shoe and footboard to give you better performance and reduced injury risk by increasing your foot stability, feel, connection heel loading and power.

CustomPack: BAT Logic shims that fit between your shoe and ShoePlate PRO QuickRelease. Designed for fixing leg length asymmetry, poor heel loading and to compensate for poor ankle flexibility. Customizes your setup. CustomPack includes 4 pieces: 1 x 1.0 mm white CustomShim1.0, 1 x 2.0 mm white CustomShim2.0 and 2 x 5.0 mm black CustomHeel shims.

Instrumented Foot Stretcher: (IFS): Unique footplate sensor system invented by BAT that analyzes and measures foot force on the ergo in 5 detailed graphs - total force, left and right forefoot and left and right heel (upper and lower parts of the foot). The IFS is used in full customization and consulting services.

Leg length asymmetry: 95% + of the population have a difference in leg length. Leg length symmetry describes how even in length your left and right legs are. If you have uneven symmetry, when rowing, you have an increased risk of pelvic and spinal injuries etc and possible problems with boat balance, steering and equal power in your leg drive.

Stability: the ability to feel balanced and in a strong position during the stroke

Connection: the feeling of being in contact and engaged on the foot stretcher and in the boat. This equals better efficiency and feel.

EMG: Electromyography, a way of measuring muscle activity by recording electrical impulses.

Heel Loading: The point at which your heel makes contact with the footboard during the leg drive. This is linked to when you can use your glutes (large bum muscles), hamstrings (large muscles at the back of the thigh) and quad's (large muscles at the front of the thigh) most effectively and powerfully.

Functional Leg length: Your leg length when you are doing certain activities like standing or sitting. This can be affected by tight muscles or injuries. It does not mean that one bone is necessarily longer on one side.

Flat board: Conventional footboard as seen on boats since rowing was invented.

Symmetry of drive: How even your leg drive / arm drive is - symmetry between left and right limbs / sides of the boat.



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