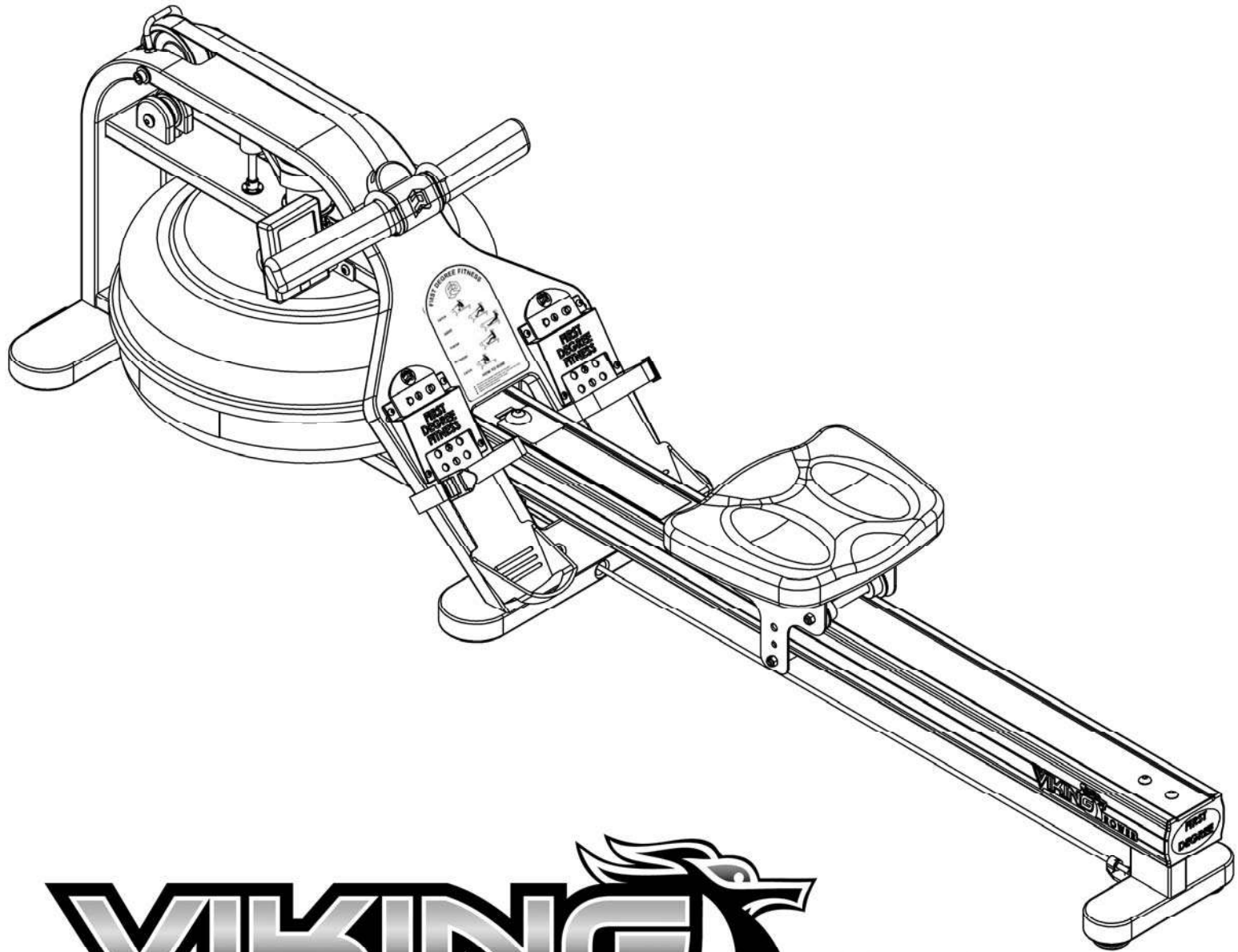


Owners Manual

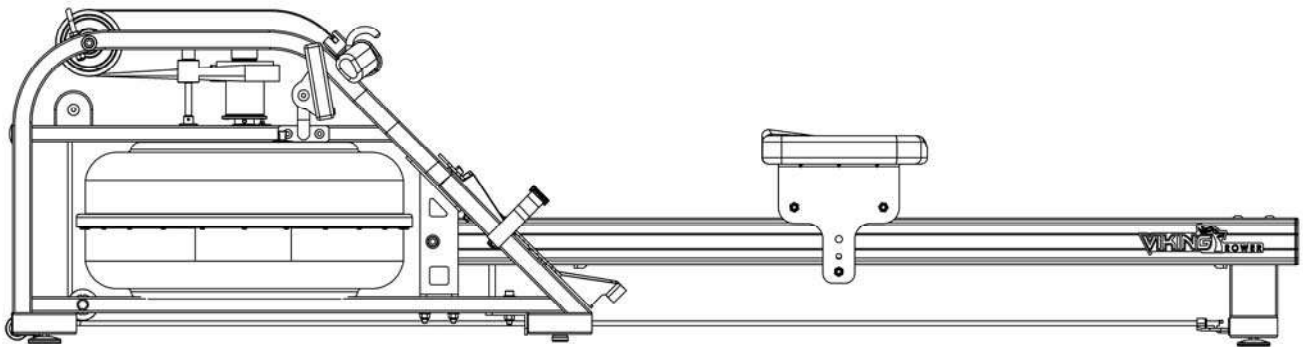


VIKING  **AR**
ROWER



FIRST DEGREE FITNESS
FLUID INNOVATION

www.firstdegreefitness.com



Congratulations on your purchase of the Viking AR Rower. First Degree Fitness are proud to present the Viking AR Rower as part of our exclusive range of commercial and home use products featuring patented Adjustable Resistance.

Our combination laminate/solid wood frames incorporate only the highest quality Scandinavian Beech, which is collected using the latest technology in sustainable harvesting from renewable plantations.

Note that slight variations of colour are normal and part of Mother nature's artistry. The wood grain patterns and subtle hues of each Viking AR Rower makes every unit highly individual and designed to compliment any environment.

Follow all instructions carefully for correct assembly, tank filling, water treatment, service and safety.

Access to our world-wide distributor and service network is available at www.firstdegreefitness.com

Training with the Viking AR Rower

1. As with any piece of fitness equipment, consult a physician before beginning your Viking AR Rower exercise program.
2. Follow instructions provided in this manual for correct foot position and basic rowing techniques.

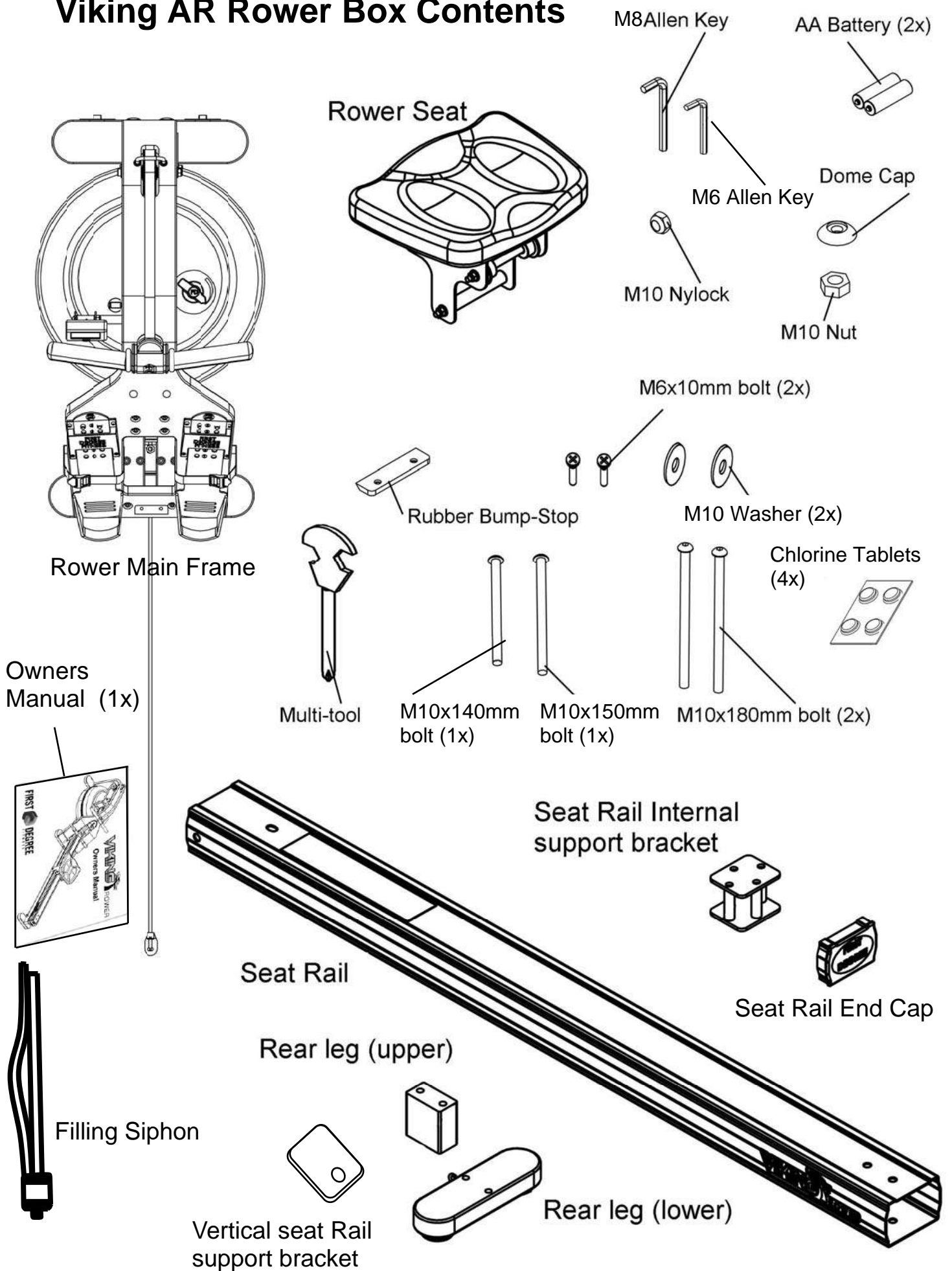


1. The Viking AR Rower can stand vertically for storage. Make sure a secure location is chosen, such as the corner of a room or against a wall.
2. Keep hands and fingers away from moving parts, as indicated by the warning sticker on the mainframe of your machine.

Contents

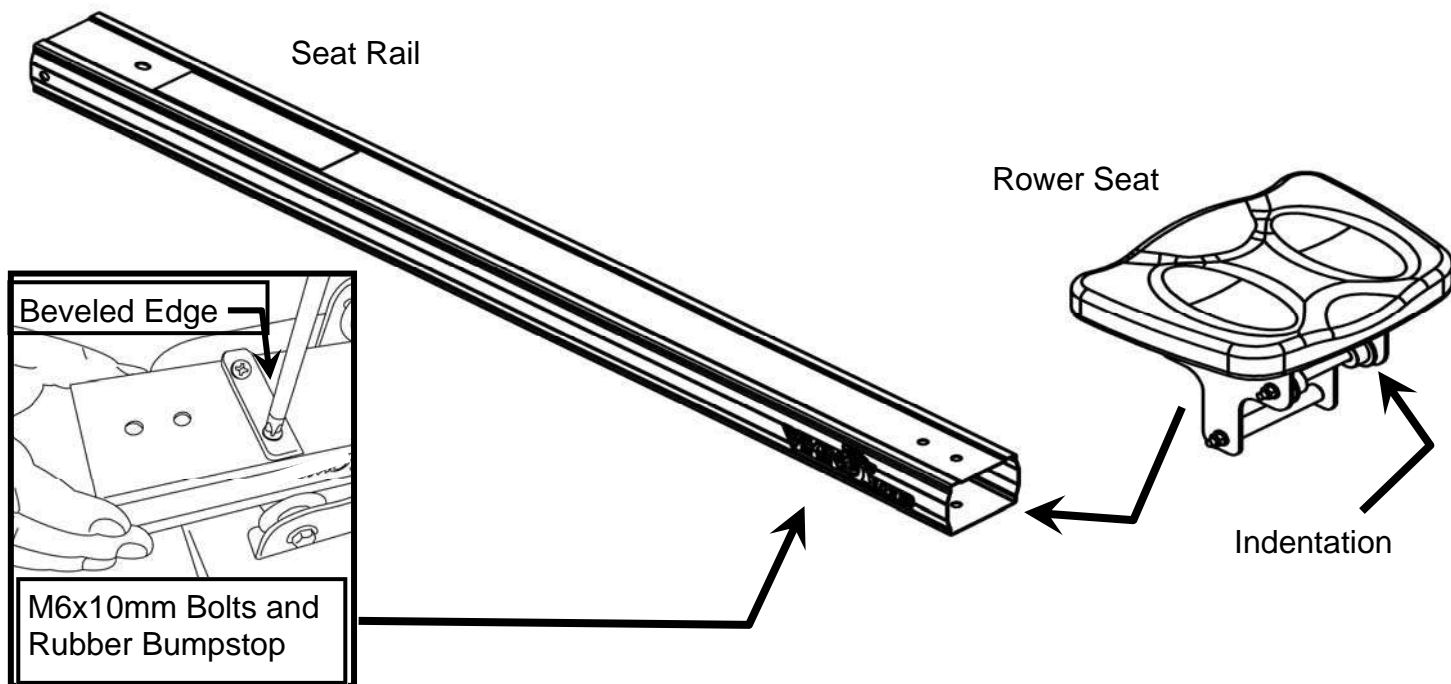
1. Contents of Viking AR Rower Pack.
2. Assembly.
3. Tank Filling and Water Treatment.
4. Operational Instructions.
5. The Viking AR Rower Computer with Optional USB Function
6. Replacing Rower Belt.
7. Maintenance and Troubleshooting.
8. Parts List.
9. Warranty.

Viking AR Rower Box Contents



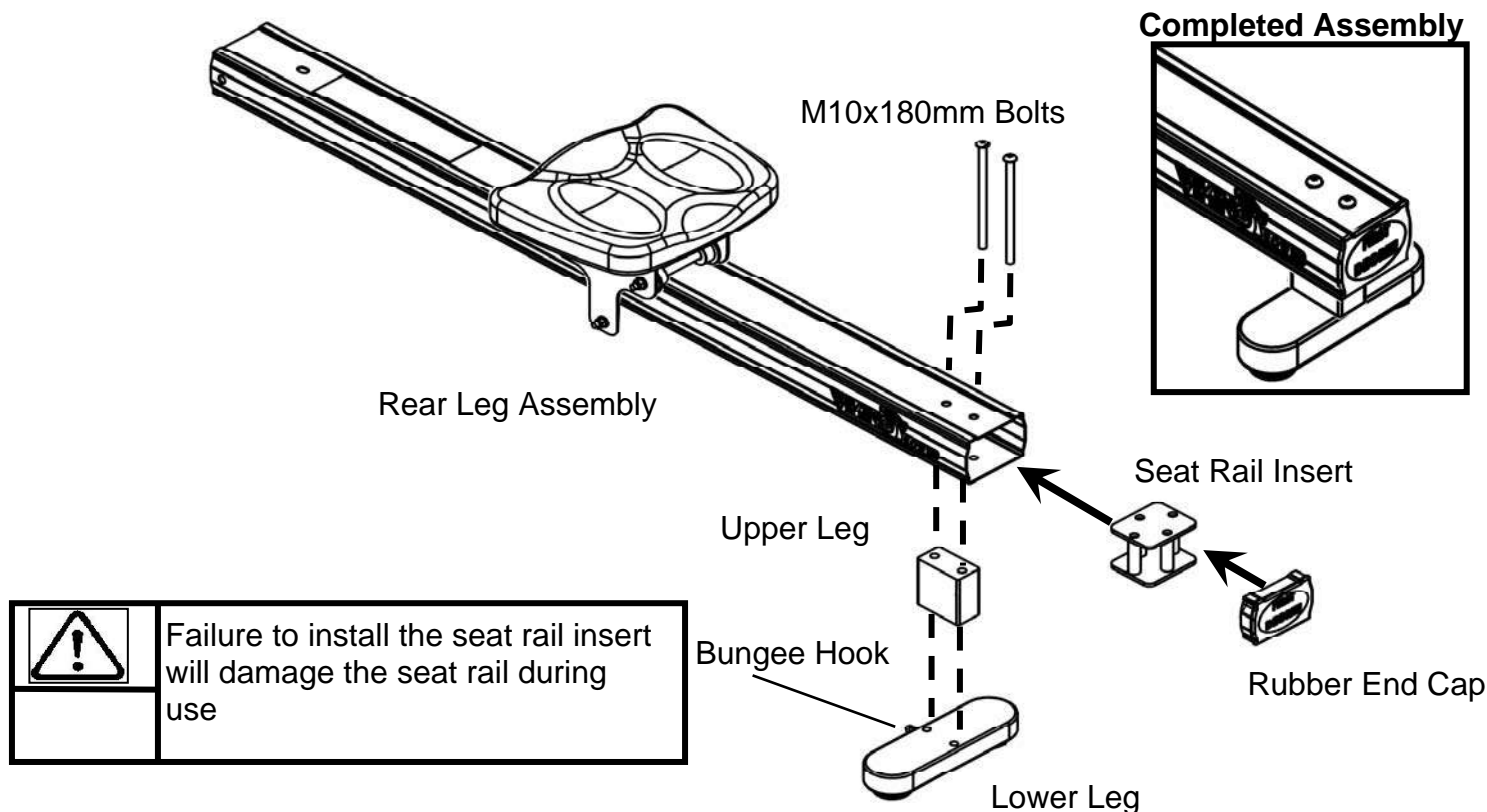
Steps 1 and 2:

Mount the Rower Seat onto the Seat Rail as shown, making sure the seat indentation is facing rearward as shown. Next, using 2x M6x10 Bolts and Rubber Bumpstop, install the Bumpstop on the underside of the Seat Rail with beveled edge facing forward.



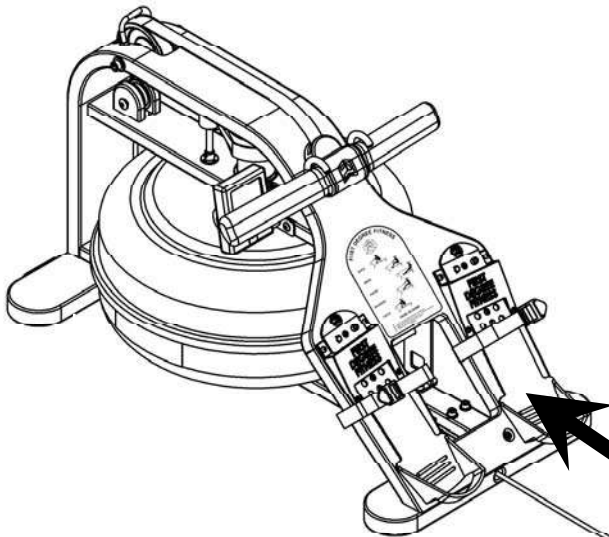
Steps 3 and 4:

First, position the Seat Rail Insert inside the Seat Rail. Next, insert 2x M10x180mm Seat Rail Bolts through the top of the Seat Rail, the Seat Rail Insert, the Upper Leg and finally into the Lower Leg metal threaded inserts. Tighten assembly and then install the Rubber End Cap into the Seat Rail. **Note:** Bungee hook must face forward.

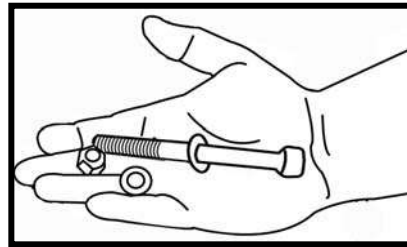


Attaching Seat Rail to Frame

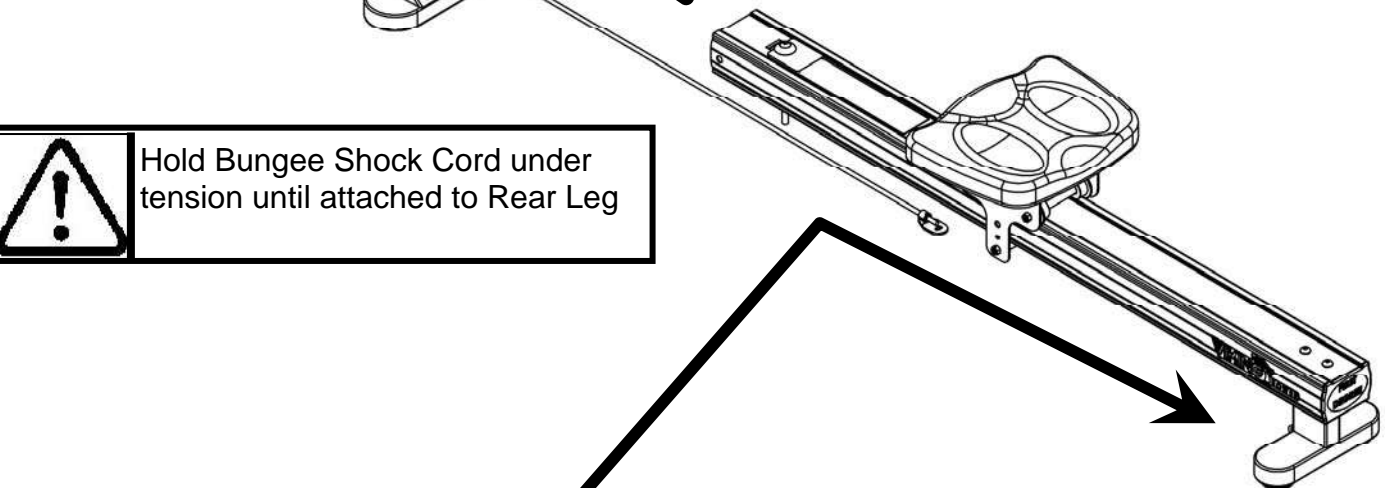
Step 5: Insert the Seat Rail through the Footplate and align with the Mainframe/Seat Rail Bracket. Install and secure the Horizontal M10x140mm Seat Rail Bolt, Washers and Nylock Nuts.



M10x140mm Horizontal Seat Rail Bolt, M10 Washer and Nylock Nuts.



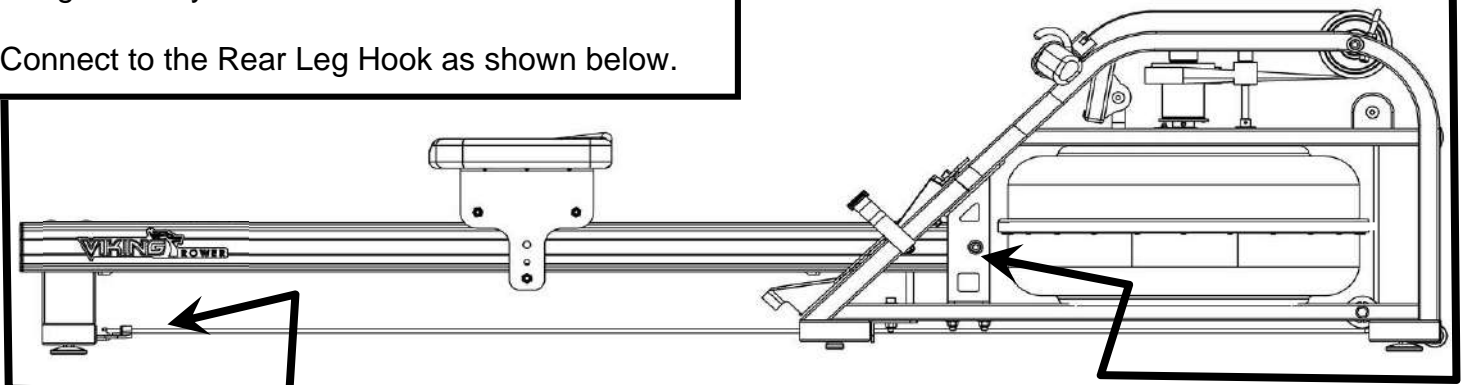
Hold Bungee Shock Cord under tension until attached to Rear Leg



Once the Seat Rail is securely fastened, untie the Bungee Shock Cord, but **hold under slight tension** so as not to allow it to fall off of the Belt Bungee Pulley.

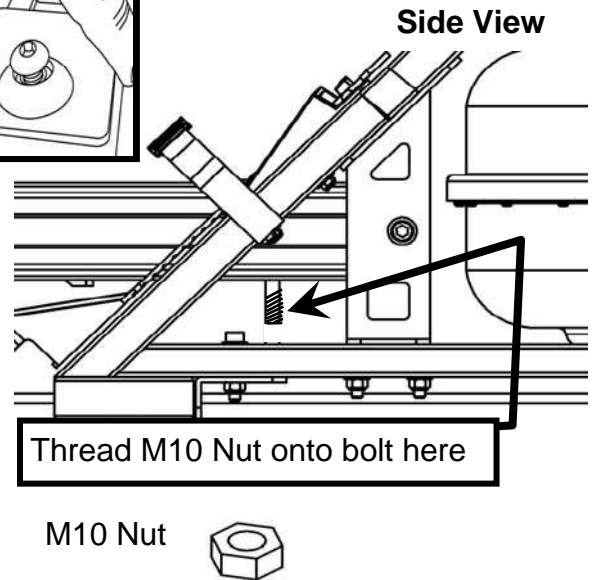
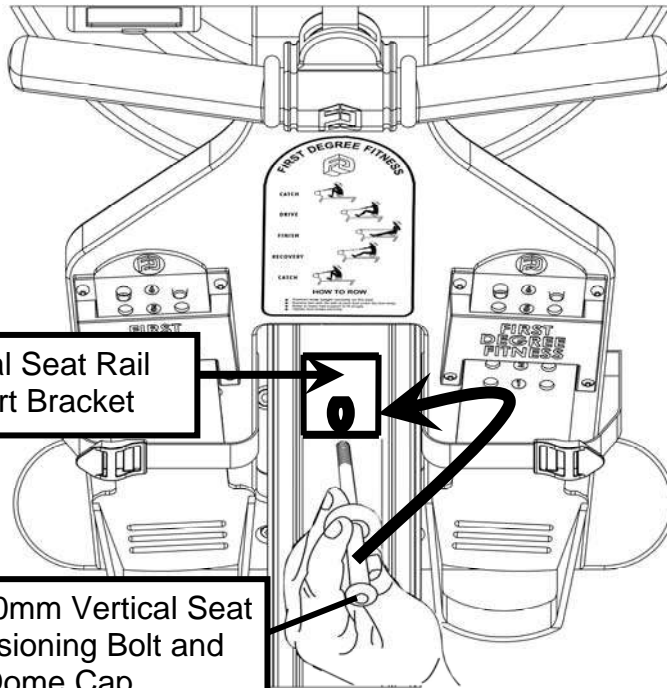
Connect to the Rear Leg Hook as shown below.

Seat Rail/Frame attachment point



Installing the Vertical Seat Rail Tensioning Bolt

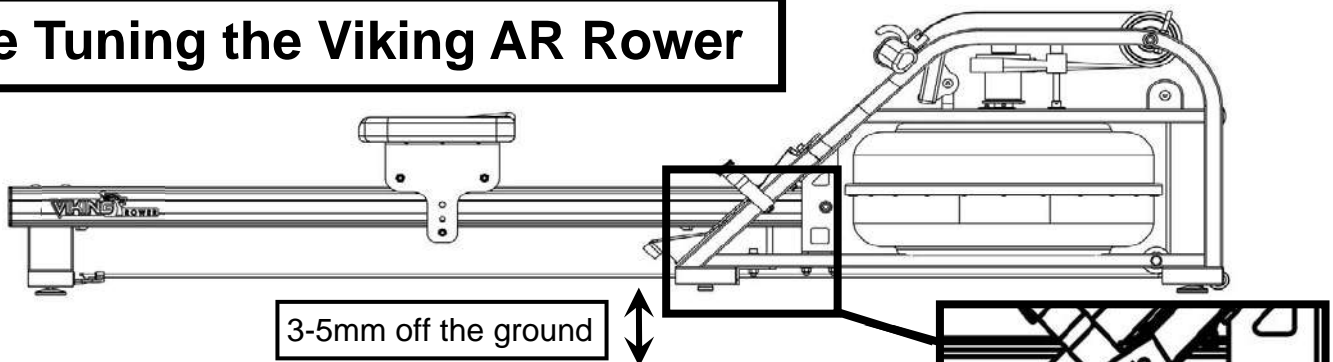
Step 6: Install the 150mm Vertical Seat Rail Tensioning Bolt and Plastic Dome Cap through the Vertical Seat Rail Support Bracket and Seat Rail.



Important

Before threading the Vertical Seat Rail Tensioning Bolt into the Lower Frame Bracket, install the M10 Nut. Thread the nut upwards as far as it will go, and then screw the Vertical Seat Rail Tensioning Bolt into the Lower Frame Bracket.

Fine Tuning the Viking AR Rower



The Vertical Seat Rail Tensioning Bolt is designed to hold the **mid leg 3-5mm off the floor when the rower is un-weighted** and to allow the mid leg lightly touch the ground during a weighted rowing stroke.

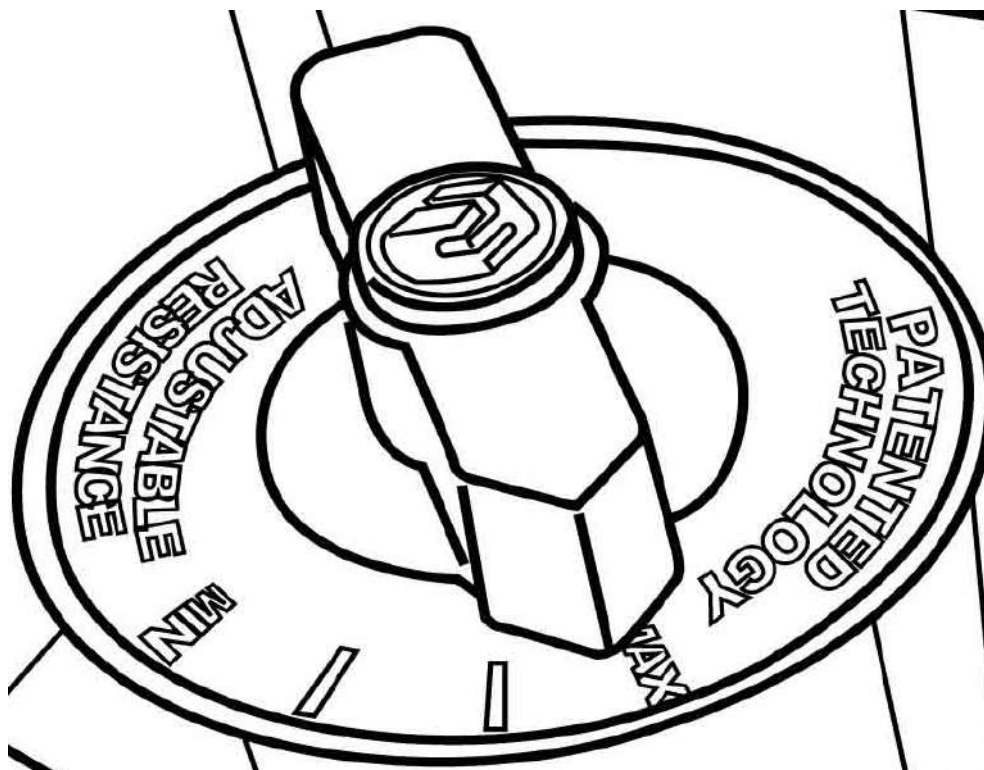
Tighten the Vertical Seat Rail Tensioning Bolt until the mid leg lifts 3mm-5mm above of the ground and then **tighten the M10 nut clockwise to secure the assembly.**

Note: Failure to tighten the M10 Nut could allow the Vertical Seat Rail Tensioning Bolt to move out of alignment.

If the front of the Viking AR Rower lifts during rowing, this indicates the Vertical Seat Rail Tensioning Bolt is not correctly adjusted. Loosen the M10 Nut and then adjust height as specified above.

Adjustable Resistance (AR) Tank:

The Adjustable Resistance (AR) Tank, developed and patented by First Degree Fitness, offers a true multi-level experience. Water is moved between the "storage" and "active" chambers of the AR Tank. Your new Rowing Ergometer can adapt - at the turn of a dial - to the resistance preferred by each user in the home environment.



MAX: This setting allows the maximum amount of water to reach the flywheel for heaviest resistance

MIN: Keeps a portion of the water in reserve creating light resistance.

GETTING STARTED

To achieve minimum resistance, select "MIN" on the tank adjuster. It takes 10 strokes to fill the central (storage) tank, leaving a minimal amount of water in the outer (active) tank. This process is always required if minimum resistance is desired. Row hard at a steady pace (20 to 25 strokes per minute [SPM]) and put some effort into the stroke, ensuring that good form is maintained. You can make adjustments to the resistance level while you row. Your Rowing Ergometer will adapt almost instantly to increases in resistance but will take up to 10 strokes to reduce the effort required, as the central (storage) tank fills up.

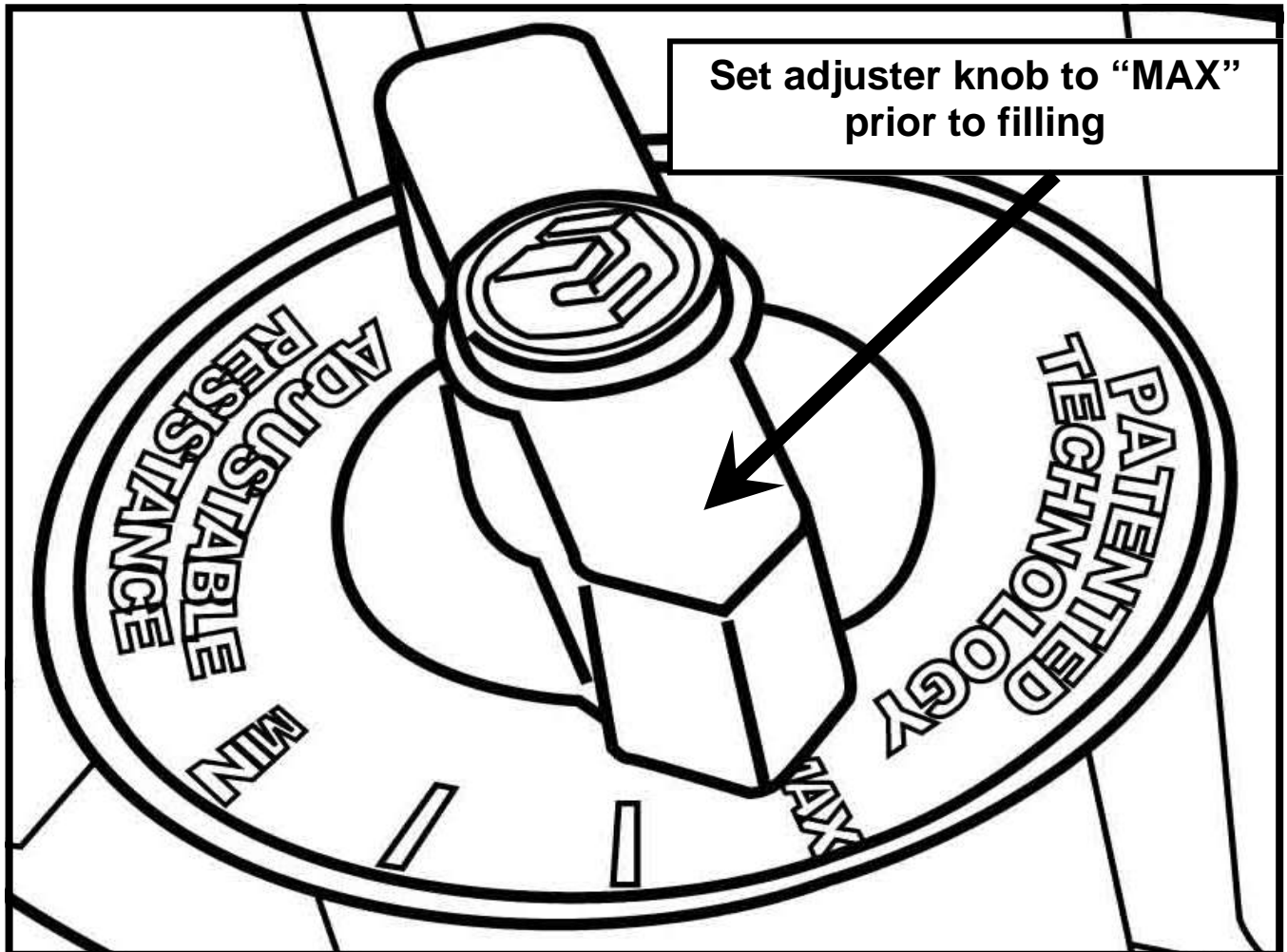
DEVELOPING YOUR ROUTINE

Once you have found a level that gives you the exercise required, changes can be made to SPM and to stroke intensity to further vary your energy input. Interval training is used by most Rowers, where a period of low intensity is combined with short intervals of high intensity. Your FDF Rowing Ergometer allows for changes 'on the fly', to achieve multi-level resistance profiles during a single workout. For more information on exercise routines, please visit our website at www.firstdegreefitness.com

Note on Filling the A/R Tank:



Important: Please Read Before Filling Tank:



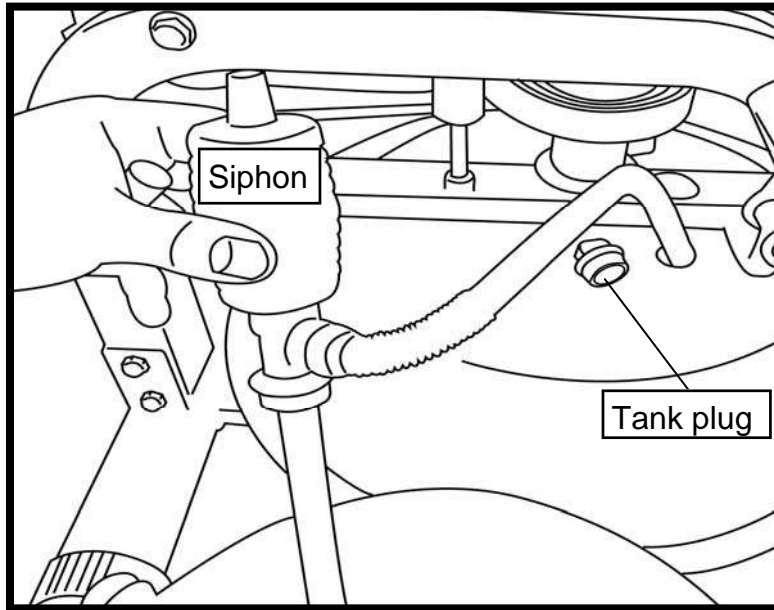
Caution:

When filling the A/R tank, the **adjuster handle must be set to the “MAX” position as shown to allow accurate fill levels.**

Using any other setting other than “MAX” will result in inaccurate fill levels and in extreme cases could cause leakage to occur during use or when stored in the standing position.

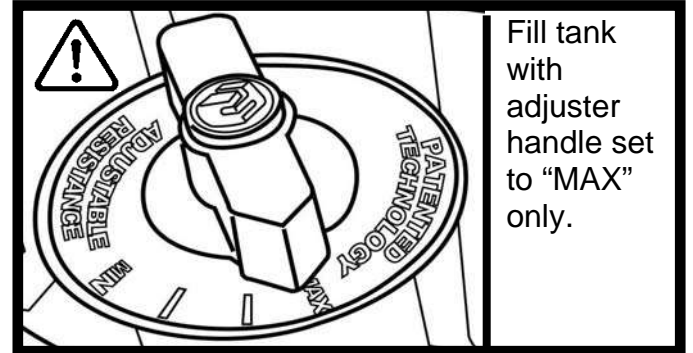
DO NOT overfill the tank beyond the maximum indicated level of 17 litres. Refer to the Tank Level Decal on the lower side of the tank

Tank filling and Water Treatment:



Tank filling and water treatment procedures

Note: 17 liters of water is required for maximum filling.



1. Remove Rubber Fill Plug from the top of the tank.
2. Place a large bucket of water next to the rower and position siphon with the rigid hose in the bucket and the flexible hose into the tank as shown. Note: Make sure small breather valve on the top of the siphon is closed before filling.

Note: Where water quality is known to be poor, FDF recommends the use of distilled water.

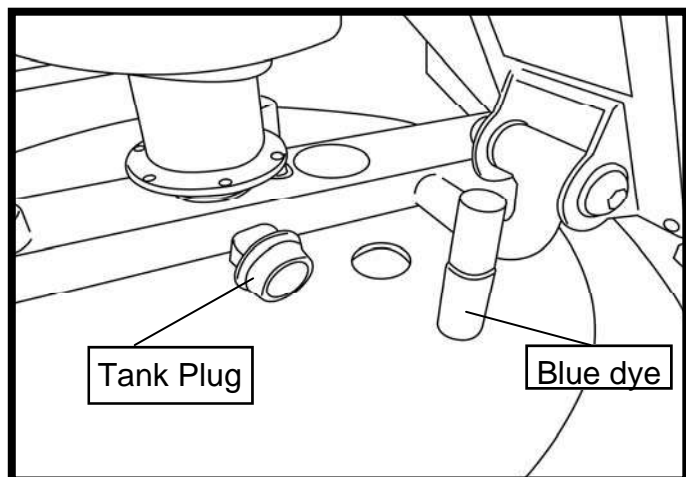
3. Begin filling tank by squeezing siphon. Use Level Gauge Decal on side of tank to measure volume of water in tank. Important: Do not overfill tank!
4. After filling tank to the desired water level, open the valve on the top of the siphon to allow excess water to escape.
5. Ensure that tank plug is replaced once filling and water treatment procedures are complete.

Tips on Siphon use: Putting the fill bucket higher than the tank will allow the siphon to "self-pump" when adding water to the tank.

Water Treatment Procedures:

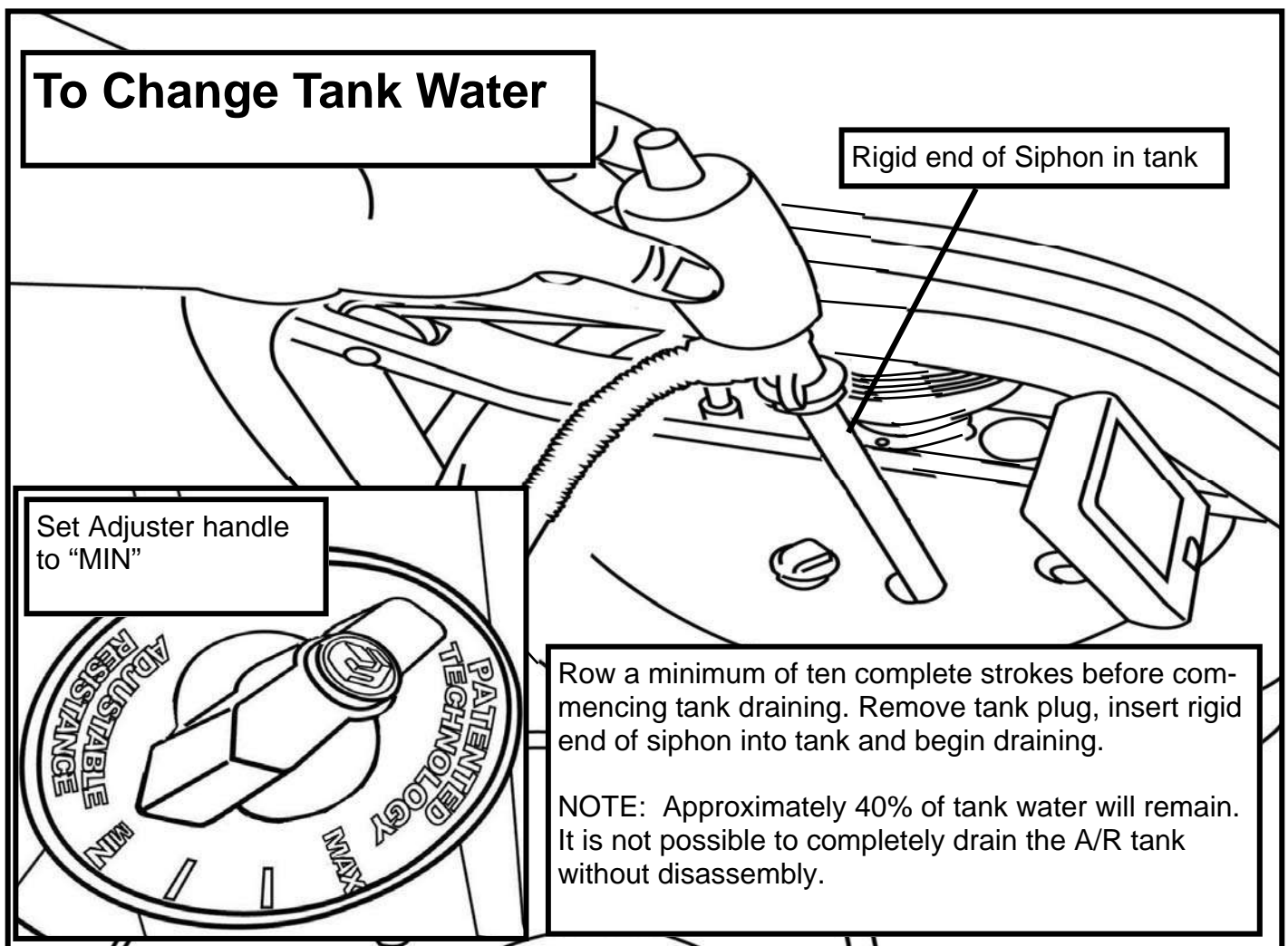
Add Chlorine tablet.

*Add very small amount of blue dye and check for desired hue. **Important!** Do not add blue dye for at least 72 hours following Chlorine treatment. The blue dye adds visual appeal as well as cutting down the amount of light reaching the tank water, thus extending the amount of time between water treatments.*



Caution:

Use a drop cloth under the tank both when filling the tank and adding blue dye to avoid staining floor or carpet



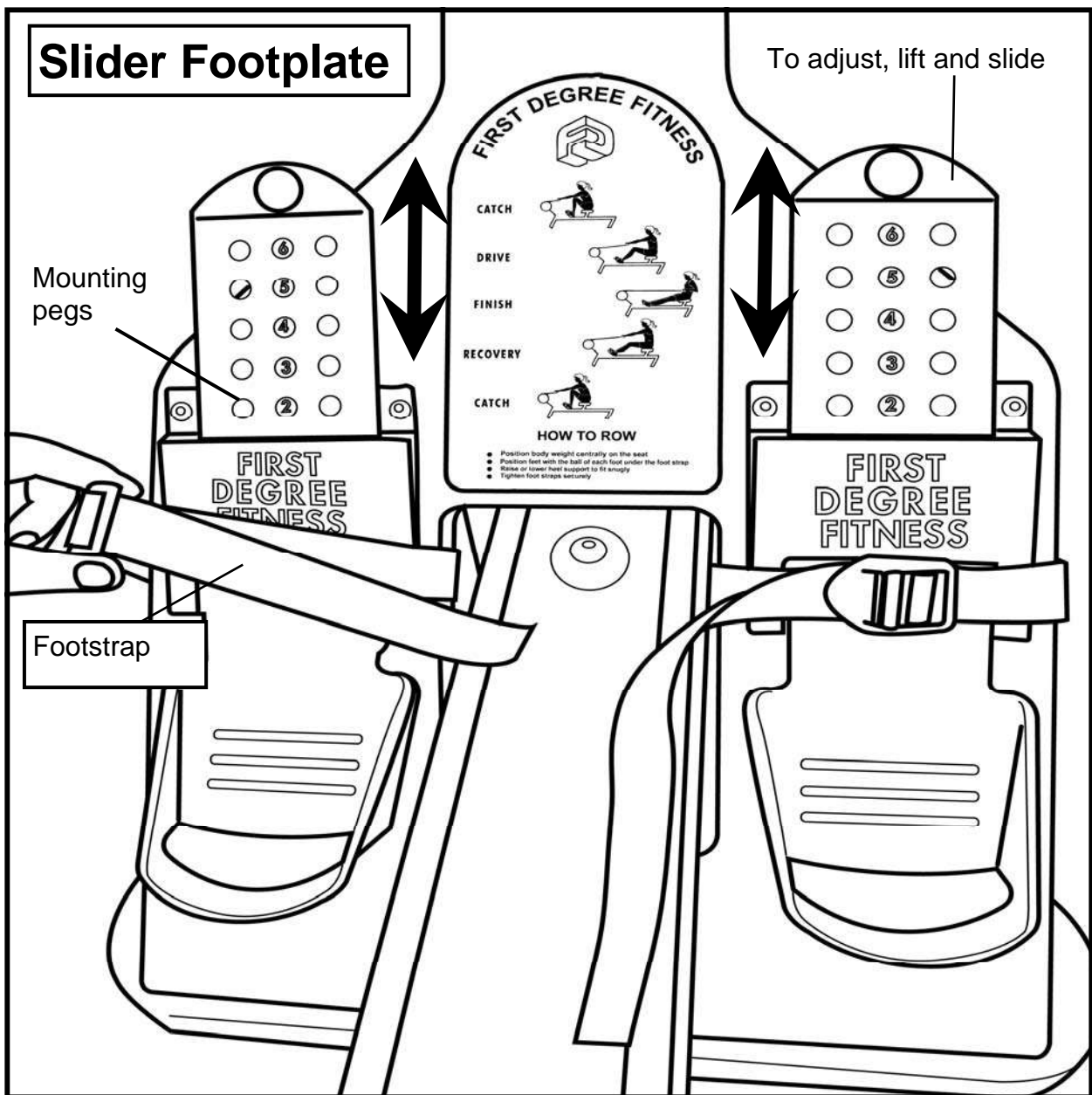
Removing/Changing Tank Water:

1. Set Adjuster handle to "MIN"
2. Row at least ten strokes to fill the storage reservoir as completely as possible.
3. Remove Tank Plug.
4. Insert rigid end of siphon into the tank, and flexible hose into a large bucket.
5. Drain tank (approx. 40% of water will remain) and then refill following directions for Tank filling as described in the Tank Filling section of this manual.

Note: The valve on top of the siphon must be closed to allow proper drainage.

Note: Water treatment will preclude the need to change tank water if the treatment schedule is maintained. Additional chlorine is required only when discoloration appears in the water.

Note: Exposure to sunlight affects the water. Moving the rower away from direct sunlight and adding the blue dye will extend time between water treatments.



The Slider Footplate is designed to fit a wide range of foot sizes, and is very simple to use.

To adjust, lift the top of the sliding portion of the footplate and slide up or down. The numbers 1-6 represent a guideline from which the proper length can be determined. Secure the plate onto the mounting pegs and push down firmly to lock into position.

Tighten the Footstraps securely and begin your workout.



WARNING: Never operate this rower without feet properly secured in Footstraps, or without the sliding portion of the Slider Footplate locked into position!

How to Row?

- 1. Begin the stroke comfortably forward and push strongly back with your legs while keeping your arms and back straight.
- 2. Begin to pull your arms back as they pass over your knees and continue the stroke through to completion rocking slightly back over your pelvis.
- 3. Return to the starting position and repeat.

How Often?

Begin with 5 minute training sessions once a day and aim for around 2:30 to 2:45 for 500m time. Row at a pace that keeps the water circulating continuously between strokes.

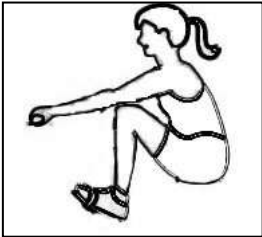
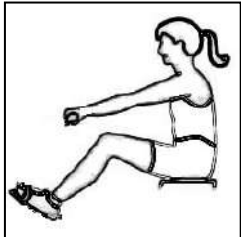
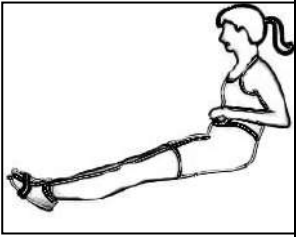
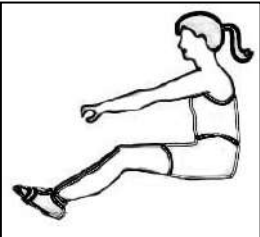
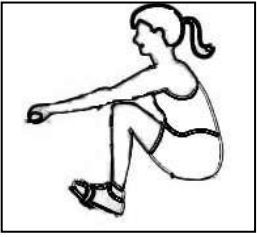
Progress a few minutes more each day until you are comfortable with 30-45 minutes training time 3 or 4 times a week.

This will provide aerobic endurance benefits, muscle toning and sufficient calorie burning to form part of a weight loss program.

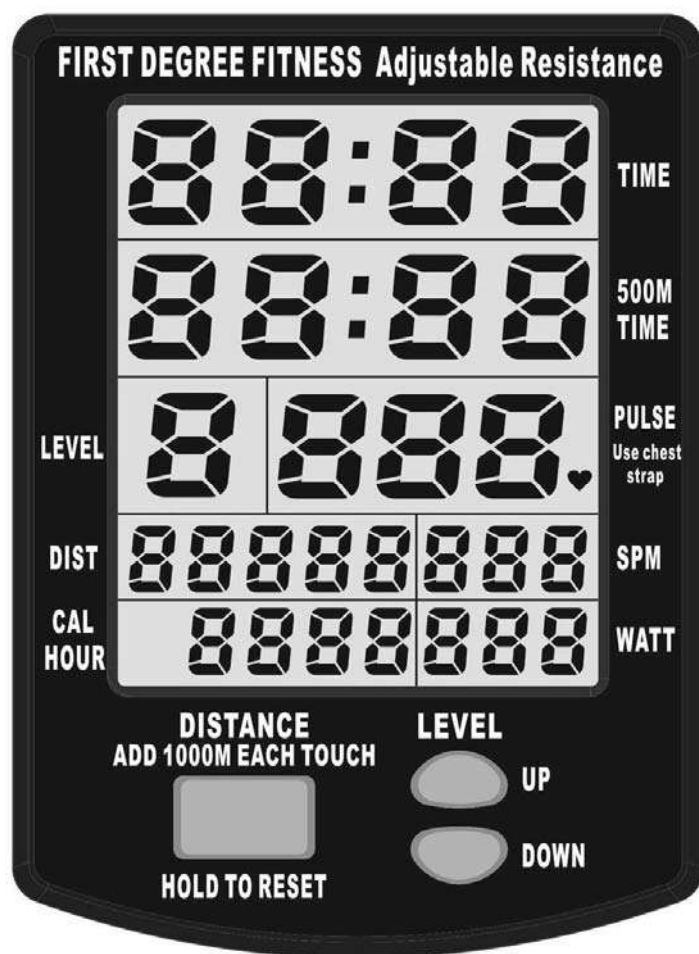


Always consult a doctor before beginning an exercise program.

Stop immediately if you feel faint or dizzy.

| | | | | |
|--|---|--|---|---|
|  |  |  |  |  |
| <div>Catch</div> <div>Comfortably forward with straight back and arms.</div> | <div>Drive</div> <div>Push with the legs while arms remain straight.</div> | <div>Finish</div> <div>Pull through with arms and legs rocking slightly back on your pelvis.</div> | <div>Recovery</div> <div>Upper body tips forward over your pelvis and move forward.</div> | <div>Catch</div> <div>Catch and begin again.</div> |

The Viking AR Rower Computer:



Options:

Auto Start: Commence rowing to activate.

Hold button down for 3 second first to RESET.

Add 1000m distance each button push to accumulate required distance then begin rowing to initiate count-back.

Auto-Pause: A temporary halt in exercise will result in the following:

For over 5 seconds and under 5 minutes:

SPM/500METER/WATT to zero. Distance/TIME values are saved. CAL per hour defaults to Total CAL.

A Resumption in exercise in less than 5 minutes will resume Distance/TIME/ from saved values automatically.

Auto Power Down: Over 5 minutes. All values revert to zero after restart.

Computer Instructions:

TIME: Auto start elapsed time.

500M TIME: Time to row 500 meters, updated at the completion of each stroke.

PULSE: Requires optional receiver and chest strap (sold separately).

SPM: Strokes per minute updated each stroke.

CAL HOUR: Updated each stroke.

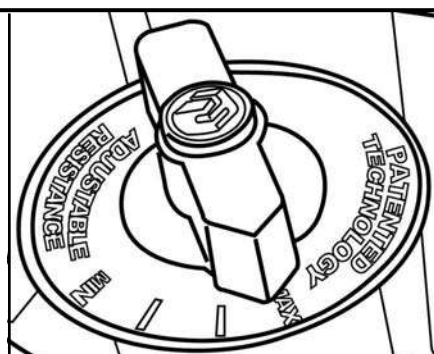
WATT: Unit of power updated per rowing stroke.

LEVEL UP/DOWN: Use the LEVEL UP/ DOWN buttons in conjunction with the Fluid Tank Resistance Adjuster handle for accurate 500M/Distance/CAL/WATTS.

MAX: Level 4



MIN: Level 1



Using the First Degree Fitness USB Interface

Description:

The USB connectivity now built in to all new models of FDF Console and IPM allow you to enhance your exercise experience by connecting to your home PC or Laptop. Using FDF's own sample applications you can exercise while enjoying your favorite movies. *NetAthlon 2 XF for Rowers* lets you race with other Internet connected rowers in a Virtual Reality 3D environment or train solo.

Setting up USB connectivity

1. Download and Install the USB Device Driver (CDM2xxxx_Setup.exe for 32 and 64 bit Windows 7/Vista/XP) from the FDF Website.
2. Download and Install the Sample USB Applications from the FDF Website (www.firstdegreefitness.com).
Download and Install NetAthlon 2 XF for Rowers from <http://www.webracing.org/downloads.htm>

Connecting your console

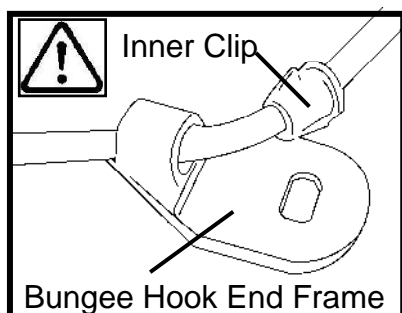
- The USB Connector is located on a flying lead at the rear of the IPM, along with the Sensor and Heart Rate Monitor Connectors.
- Connect to a Laptop or PC using a standard USB cable, you may need to wait while Windows starts the USB Device Driver.

Note: Please refer to computer manual where applicable or for further information refer to our website at www.firstdegreefitness.com

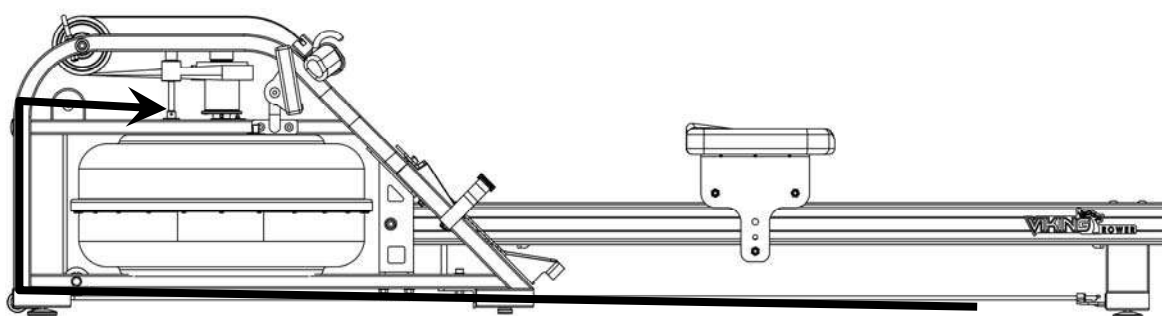
Detaching the Rower Belt:

1. To detach belt, simply pull beyond the range of the normal rowing stroke until the belt detaches from the belt bungee pulley.

Tip: You'll hear the Velcro separating just before the belt detaches.

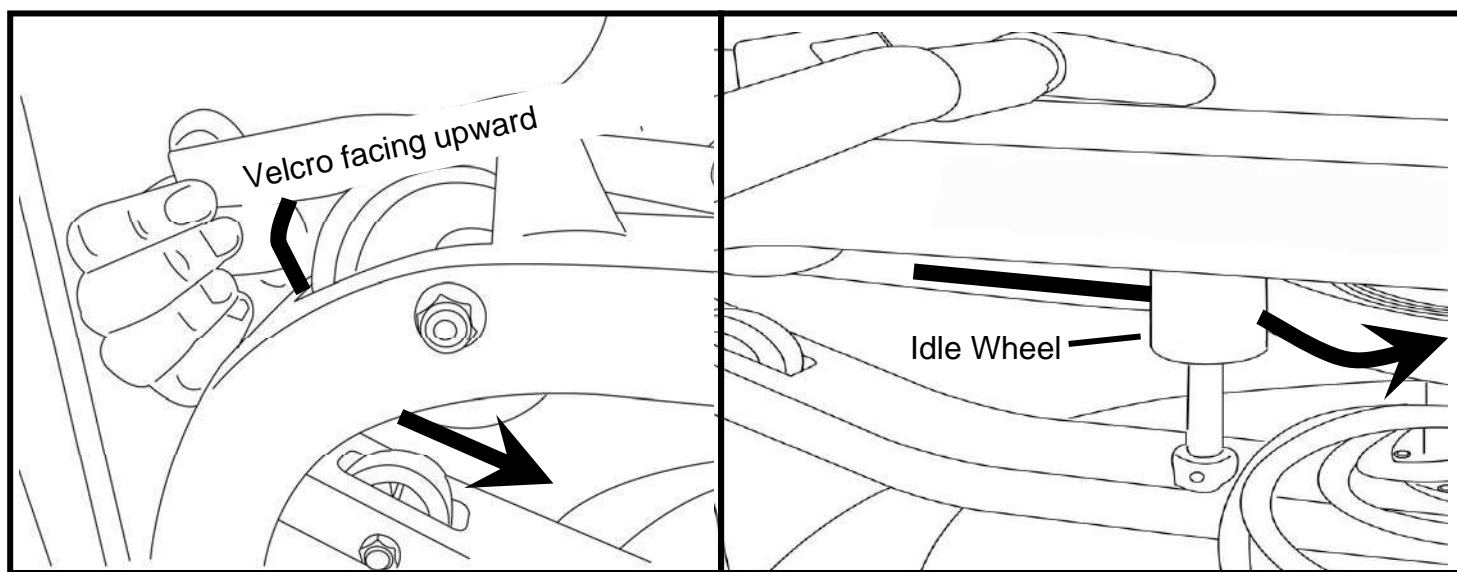


2. Unhook the Bungee Shock Cord from the Rear Leg. Then, push out the Inner Clip from the Bungee Hook End Frame. Pull the Bungee through the Inner Clip until free. This will allow for the Bungee Shock Cord to be threaded completely out of the Main Frame and up to the Belt Bungee Pulley where it will be re-attached once the Rower Belt is in the proper position.

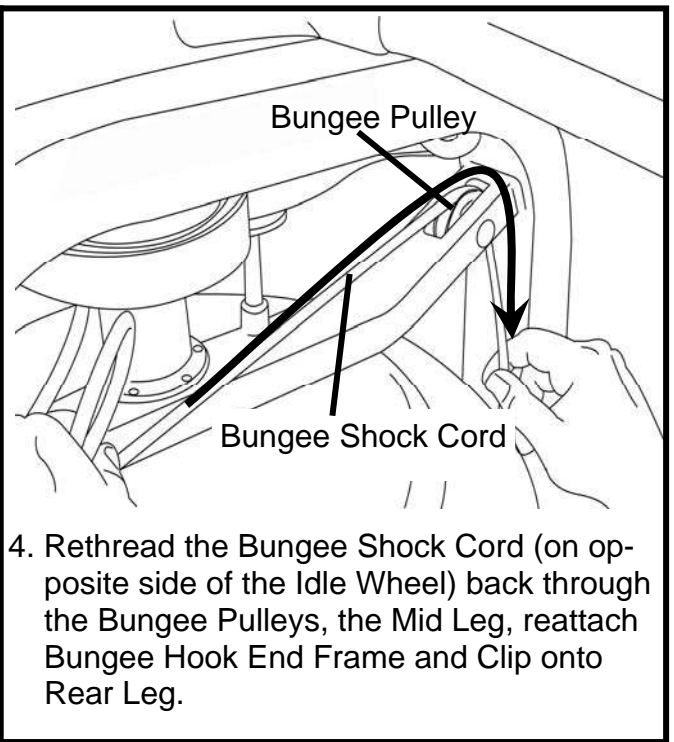
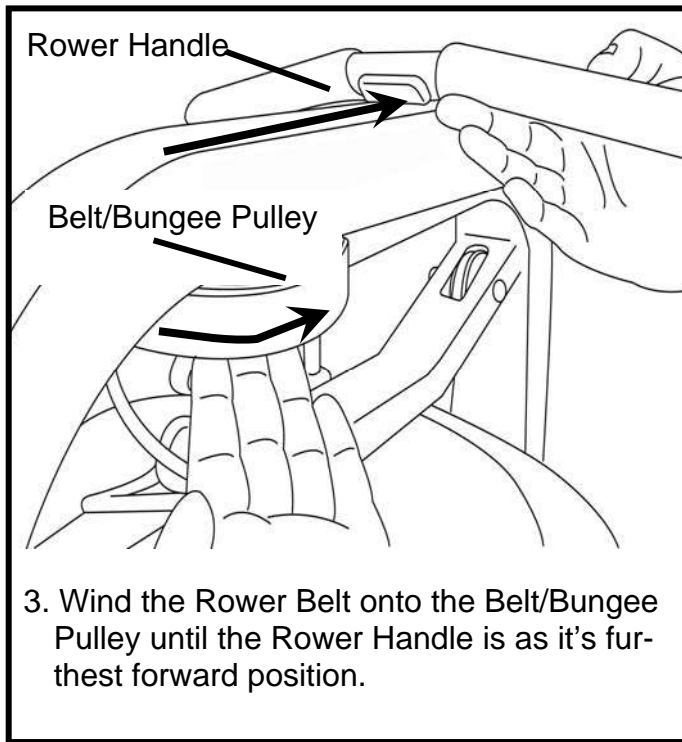


Reattaching the Rower Belt:

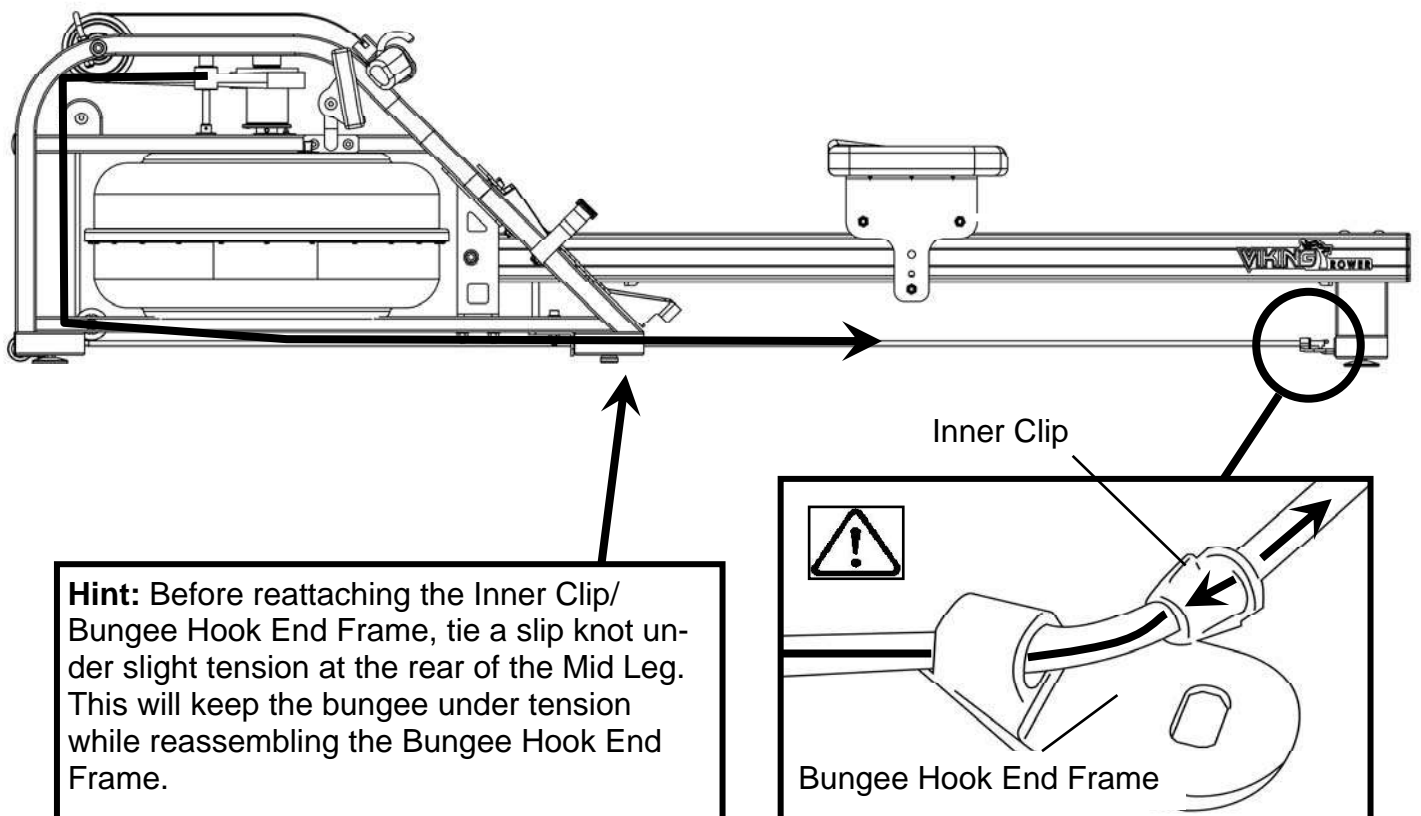
1. Begin reattaching the Rower Belt by threading around the Rower Belt Pulley with the Velcro side facing upward as illustrated.



2. Next, thread the Belt around the Idle Wheel as shown. Once around the Idle Wheel, attach the Rower Belt to the Belt/Bungee Pulley. There is an obvious "lip" at the attachment point.



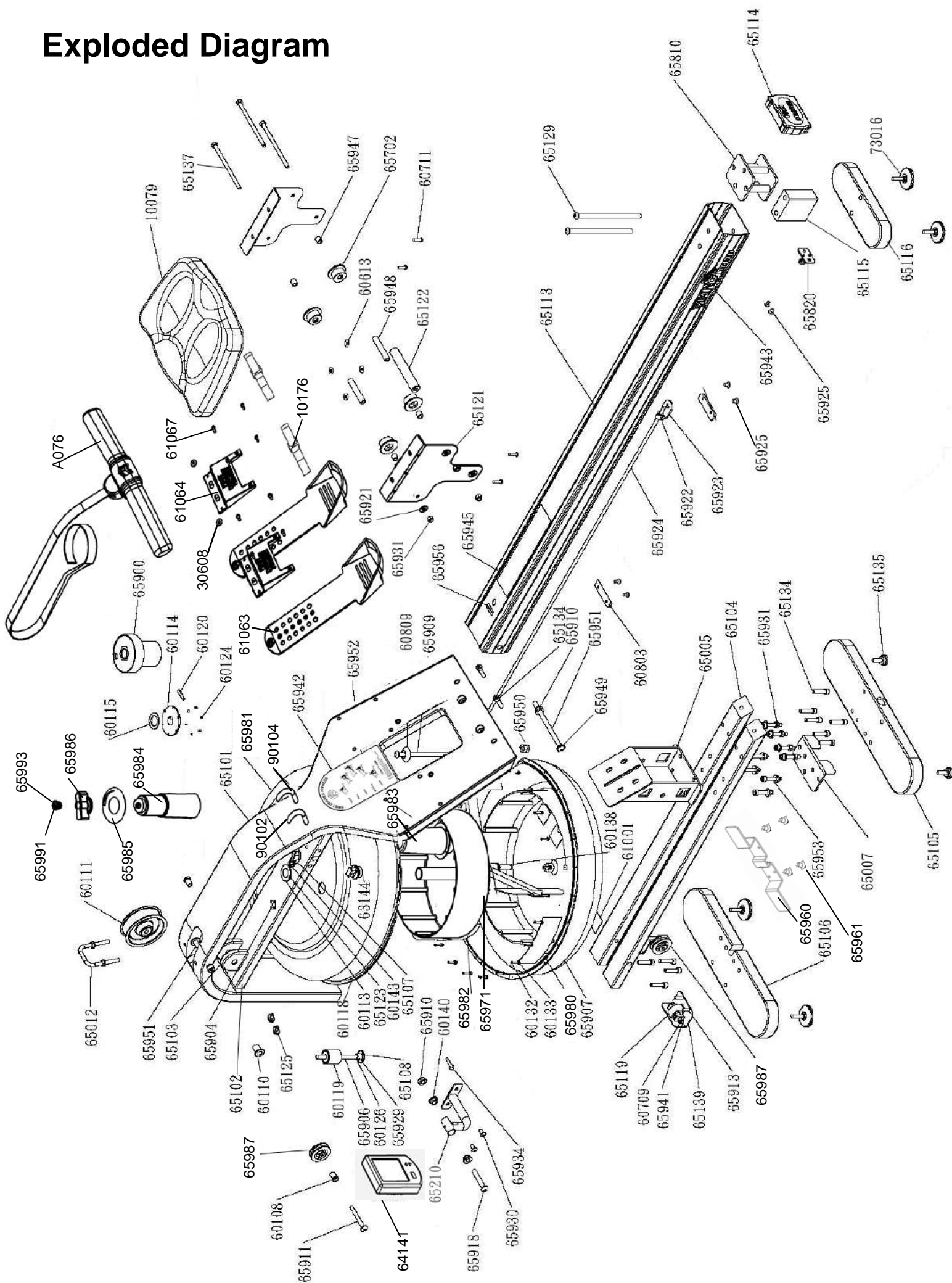
Recoil tension can be simply adjusted to suit each user. To adjust, simply push the Inner Clip out of the Bungee Hook End Frame from behind, pull the required amount of bungee through the Inner Clip and replace the Inner Clip into the Bungee Hook End Frame.



Troubleshooting:

| Fault | Probable Cause | Solution |
|---|---|--|
| Water changes colour or becomes cloudy. | <p>Rower is in direct sunlight or has not had water treatment.</p> <p>Local tap water is of poor quality.</p> | Change rower location to reduce direct exposure to sunlight. Add water treatment and blue dye or change tank water as directed in the water treatment section of this manual. |
| Rower belt slipping off belt/ bungee pulley. | <p>Bungee not under enough tension.</p> <p>Recoil not strong enough</p> | Tighten bungee cord following the instructions in "reattaching the rower belt" section of this manual. |
| Front of rower lifts during vigorous rowing. | M10X150mm Vertical Seat Rail Tensioning Bolt is not correctly adjusted. | Refer to the "Fine tuning the Viking AR Rower". Tighten bolt in 1/4 turn increments until problem stops. Note: Over tightening this bolt can damage the seat rail. Make sure M10 lock nut is first loosened, and then retighten at completion. |
| The Viking AR Rower computer does not illuminate after battery installation. | Batteries installed incorrectly or need replacing. | Replace/reinstall batteries in correct position and try again. If the LCD screen fails to illuminate, try rotating the batteries slightly in the computer. If this fails, contact your local service center. |
| Viking AR Rower Computer screen illuminates, but does not register when rowing. | Loose or failed connection. | Check that the computer lead is connected properly. If it is connected then contact your local service center. |

Exploded Diagram



Parts List

| P/N | Qty | Description | P/N | Qty | Description |
|-------|-----|---|-------|-----|---|
| 10079 | 1 | Seat LS-E28 | 65139 | 2 | Transport Wheel Bracket Complete |
| 10121 | 2 | 3M Foot Plate Non Slip | 65210 | 1 | Computer Stalk Complete |
| 10176 | 2 | Foot Strap with Buckle # 10177 | 65702 | 4 | Seat Wheel |
| 30608 | 8 | Nut M5 Nylon | 65810 | 1 | Seat Rail Internal Support Bracket |
| 60108 | 2 | Bungee Pulley Spacer 8mm | 65820 | 1 | Bungee Hook Bracket Complete |
| 60110 | 4 | Belt Pulley Spacer | 65900 | 1 | Belt/Bungee Complete with Bearings and Velcro |
| 60111 | 1 | Belt Pulley 100mm & 2x Bearing #60112 | 65904 | 7 | Wood Screw M3X15mm |
| 60113 | 1 | Main Shaft Oil Bushing - Lower | 65906 | 1 | Idle Wheel Shaft |
| 60114 | 1 | Magnet Ring & 6 x Magnet #60124 | 65909 | 1 | Bolt M10X150 -B |
| 60115 | 1 | Flywheel Shaft Spacer | 65910 | 3 | Nut M10 Nylock -B |
| 60118 | 1 | Tank Large Ring Seal | 65911 | 1 | Bolt M8X70 -B |
| 60119 | 1 | Idle wheel & 2x Bearing #60112 | 65913 | 4 | Bolt M6x20 -B |
| 60120 | 1 | Roll Pin 6mm | 65916 | 1 | Knob & Decal #60618 |
| 60124 | 6 | Rare Earth Magnet 5mmx4mm | 65918 | 1 | Bolt M10x60 -B |
| 60126 | 2 | C Clip 10mm | 65921 | 8 | Washer M8X18 -B |
| 60132 | 24 | Screw M3x20 | 65922 | 1 | Bungee Clip 8mm |
| 60133 | 24 | Nut Nylock M3 | 65923 | 1 | Bungee bracket 8mm |
| 60138 | 1 | Impeller End Cap | 65924 | 1 | Bungee 8mm |
| 60140 | 2 | Computer Mount Plastic Bushing | 65925 | 6 | Bolt M6x15 -B |
| 60143 | 1 | Sensor | 65926 | 1 | Heel Strap |
| 60304 | 1 | Flywheel Upper Shaft | 65929 | 1 | Grub Screw M4x6 - B |
| 60506 | 2 | Rowing Handle Rubber Grip | 65930 | 2 | Bolt M8x15 -B |
| 60605 | 2 | Rubber Heel Support Pad | 65931 | 18 | Nut Nylock M8 -B |
| 60613 | 4 | Washer M6x16 | 65934 | 10 | Screw M6X40 -B |
| 60709 | 1 | Nut Nylock M8 | 65938 | 2 | Handle Catch |
| 60711 | 4 | Bolt M6x20 -B | 65941 | 1 | Bolt M8x50 -B |
| 60803 | 2 | Rubber Bump Stop - Seat Rail | 65942 | 1 | Decal - Heel Adjuster |
| 60809 | 1 | Plastic Dome Cap | 65943 | 2 | Decal - Seat Rail Viking |
| 61001 | 5 | Tank Bonding Strip 3M-VHB | 65944 | 1 | Decal - Tank Level |
| 61063 | 2 | Slider Footplate bottom | 65945 | 1 | Decal - How to Row |
| 61064 | 2 | Slider Footplate top | 65947 | 4 | Seat Wheel Short Spacer |
| 61067 | 8 | Bolt M5x15 | 65948 | 2 | Seat Wheel Long Spacer |
| 63144 | 1 | Tank Plug | 65949 | 2 | Washer M10X21X2t -B |
| 64141 | 1 | Computer - VIKAR | 65950 | 1 | Nut M10 -B |
| 65005 | 1 | Main Frame / Seat Rail Bracket Complete | 65951 | 2 | Bolt M10X140 -B |
| 65007 | 1 | Vertical Seat Rail Bolt/Lower Frame Bracket | 65952 | 1 | Bolt M6x8 |
| 65011 | 1 | Heel Adjuster Knob External Plate | 65953 | 8 | Bolt M8x45-B |
| 65012 | 1 | U Bolt 8mm with 2xFlange Nuts #65940 | 65956 | 1 | Decal - To adjust see manual |
| 65101 | 1 | Main Frame | 65957 | 1 | Decal - Resistance AR tank |
| 65102 | 1 | Mid Frame | 65958 | 1 | Decal - Seat Rail AR |
| 65103 | 2 | Bungee Wheel Bracket | 65959 | 1 | Decal - FD AR knob |
| 65104 | 2 | Lower Frame Left/Right | 65960 | 1 | Bottom Bracket |
| 65105 | 1 | Mid Leg | 65961 | 4 | Screw M5x15 for Wood |
| 65106 | 1 | Front Leg Base | 65971 | 1 | Impeller - AR |
| 65107 | 1 | Sensor Bracket | 65980 | 1 | Lower Tank Cover |
| 65108 | 1 | Idle Wheel Shaft Bracket (Lower) | 65981 | 1 | Outer Tank - AR |
| 65113 | 1 | Seat Rail - Viking | 65982 | 1 | Inner Tank - AR |
| 65114 | 1 | End Cap - Seat Rail | 65983 | 1 | Tank adjuster outer cup |
| 65115 | 1 | Rear Leg Upper | 65984 | 1 | Tank adjuster inner cup |
| 65116 | 1 | Rear Leg Lower | 65985 | 1 | Decal - AR Resistance |
| 65119 | 2 | Transport Wheel | 65986 | 1 | Adjuster Knob |
| 65121 | 2 | Seat Frame Bracket | 65987 | 2 | Bungee Pulley 50mm |
| 65122 | 1 | Wheel Spacer | 65991 | 1 | End cap-Adjuster Knob |
| 65123 | 1 | Shaft Spacer Lower | 65992 | 1 | Grub Screw M3x12 SUS |
| 65125 | 2 | Bump Stop - Main Frame | 65993 | 1 | Knob Decal -18mm |
| 65129 | 2 | Bolt M10x180 for Rail End - B | 73016 | 4 | Foot Leveler M8x30 PVC |
| 65134 | 30 | Bolt M8x35mm -B | 90102 | 2 | Rower Handle Bar Catch |
| 65135 | 2 | Foot Leveler Mid 36.6*8.5 | 90104 | 2 | Rubber Hook Cover |
| 65137 | 3 | Bolt M8X140 | A069 | 1 | Delux Belt Handle Complete |

VIKING AR ROWER

INTERNATIONAL WARRANTY – LIGHT COMMERCIAL USE**

****Light Commercial Use** - This product is designed and constructed for use in supervised facilities where the product is used for less than 25 hours per week in total. It is not intended or warranted for general use in Health Club / Fitness Studio application.

First Degree Fitness Limited warrants that the **Viking AR Rower (model VIKAR)**, purchased from an authorised agent and in its undamaged original packaging, is free from defects in materials and workmanship. First Degree Fitness Limited or its agent will, at their discretion, repair or replace parts that become defective within the warranty period, subject to the specific inclusions and exclusions below.

Wooden Frame – 5 Year Limited Warranty

First Degree Fitness Limited will repair or replace the wooden Main Frame of the Rower should it fail due to any defect in materials or workmanship within 5 years of the original purchase. Warranty does not apply to frame coating.

Polycarbonate Tank & Seals – 3 Year Limited Warranty

First Degree Fitness Limited will repair or replace the polycarbonate tank or seals should they fail due to any defect in materials or workmanship within 3 years of the original purchase.

Mechanical Components (of a non-wearing nature) – 2 Year Limited Warranty

First Degree Fitness Limited will repair or replace any mechanical component should it fail due to any defect in materials or workmanship within 2 years of the original purchase.

Specific Inclusions

Aluminum Seat Rail (excludes discolouration from seat wheel action)

Stainless Steel Paddle Assembly

All Other Components (of a wearing nature) – 2 Year Limited Warranty (Home use) or 1 year (Light Commercial use)

First Degree Fitness Limited will repair or replace any component should it fail due to any defect in materials or workmanship within 1 year of the original purchase.

Specific Inclusions

Bungee recoil cord

Hand grips & foot straps

Polyester rowing belt

Seat

All pulleys, rollers & bearings

All rubber components

Computer & speed sensor (excluding replaceable batteries)

Sliding footplates

General Exclusions

Damage to the finish of any part of the machine

Damage due to neglect, abuse, incorrect assembly or use of the machine

Any charges for freight or customs clearance associated with the return or dispatch of parts

Any damage to or loss of goods during transport of any kind

Any labour cost associated with a warranty claim

General Conditions

- The serial number of the machine must be correctly registered with First Degree Fitness Limited or one of its appointed distributors
- First Degree Fitness Limited reserve the right to examine any part where replacement is claimed under warranty
- Warranty period applies only to the original purchaser from the date of purchase and is not transferable
- The product must be returned to your place of purchase in original packaging with transportation, insurance and associated charges paid for by you and risk of loss or damage assumed by you
- First Degree Fitness makes no other warranties except as stated here and expressly disclaims all warranties not stated in this warranty. Neither First Degree Fitness nor its associates shall be responsible for incidental or consequential damages
- Manufacturer's warranty automatically commences upon sale of the product to end user or upon the expiration of one (1) year from month of manufacture, whichever occurs first