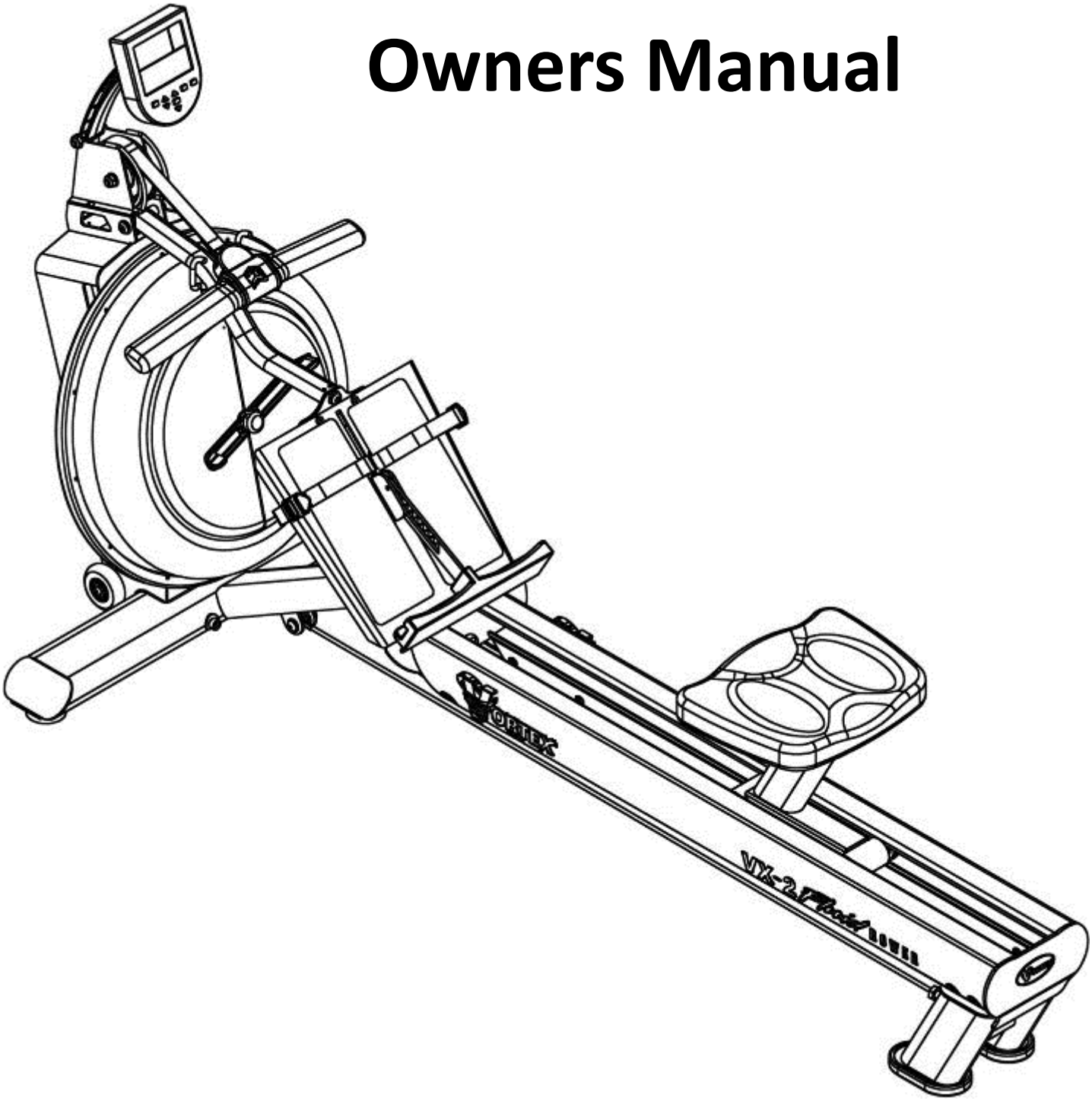
Owners Manual



VX-2 Fluid ROWER

FR-E316 Fluid ROWER

FIRST DEGREE FITNESS
FLUID INNOVATION

www.firstdegreefitness.com

Training with the FLUID ROWER

1. As with any piece of fitness equipment, consult a physician before beginning your FLUID ROWER exercise program.

2. Follow instructions provided in this manual for correct foot position and basic rowing techniques.

3. For further details regarding rowing technique, please visit our international website at www.firstdegreefitness.com

⚠ CAUTION

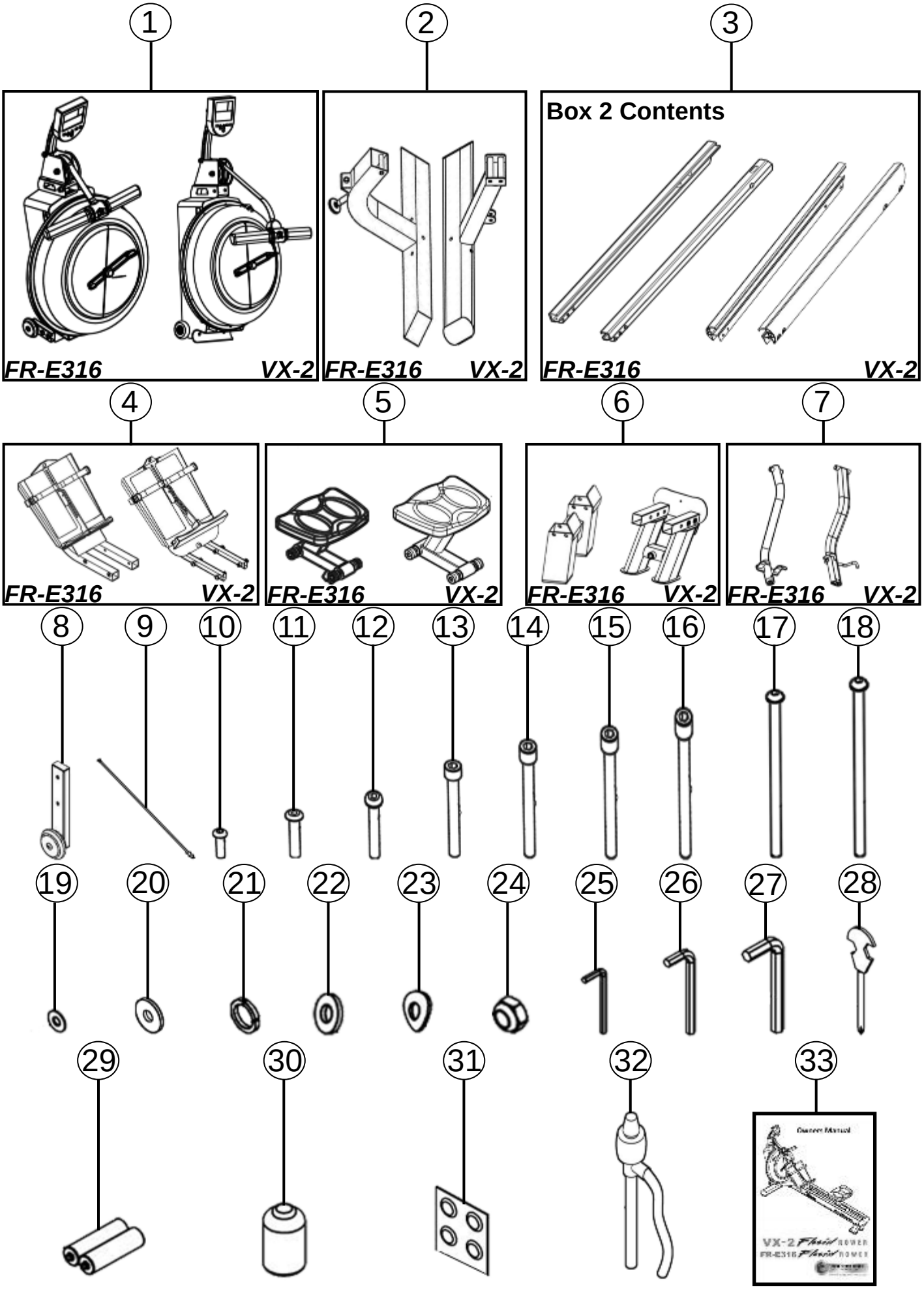
1. The FLUID ROWER can stand vertically for storage. When doing so, please follow the instructions given in the basic operation section of this manual.

⚠ CAUTION

2. Keep hands away from moving parts, as indicated by the warning sticker on the mainframe of your machine and inside the PVC rear cover.

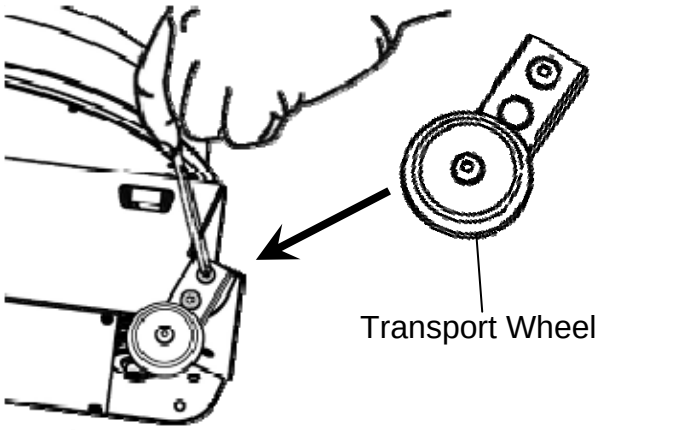
Contents

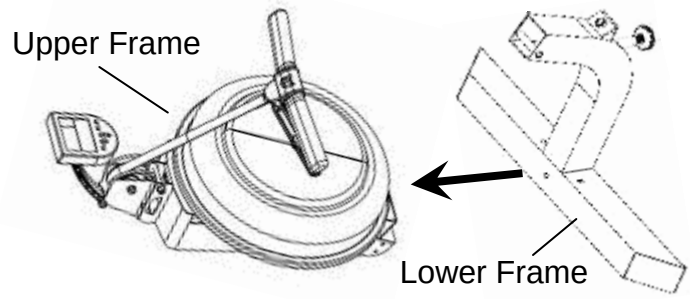
Box Contents



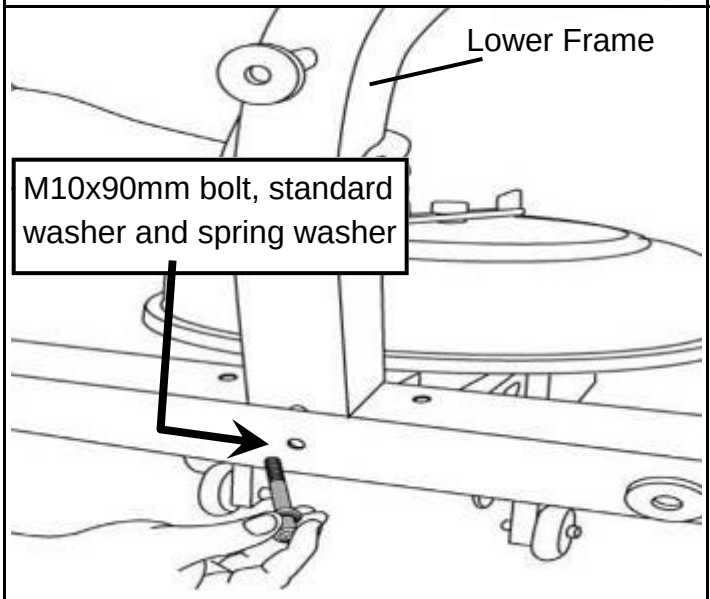
Item	Qty	Description	Item	Qty	Description
1	1	Upper Mainframe and Tank	18	1	Bolt M10 x 180 for ***VX-2***
2	1	Lower Mainframe	19	8	Washer M6
3	2	Left/Right Seat Rail	20	15	Washer M10
4	1	Footplate	21	3	Spring Washers M10 for ***FR-E316***
5	1	Rower Seat	22	4	Plastic Washer M10 for ***VX-2***
6	1	Rear Leg	23	2	Curved Washer M10 for ***VX-2***
7	1	S-Bend Bar Handle Catch	24	2	Nylock Nut M10 for ***FR-E316***
				4	Nylock Nut M10 for ***VX-2***
8	2	Transport Wheel Assembly for ***FR-E316***	25	1	4mm Allen Key
9	1	Frame Tension Cable for ***VX-2***	26	1	6mm Allen Key
10	8	Bolt M6 x 20	27	1	8mm Allen Key
11	1	Bolt M10 x 40 for ***VX-2***	28	1	Multi-tool
12	8	Bolt M10 x 47.5	29	1	AA Batteries
13	1	Bolt M10 x 65 for ***VX-2***	30	2	Touch Up Paint
14	1	Bolt M10 x 80	31	1	Water Treatment Tablet
15	3	Bolt M10 x 90 for ***FR-E316***	32	1	Siphon
16	2	Bolt M10 x 140 for ***VX-2***	33	1	Owners Manual
17	2	Bolt M10 x 170 for ***FR-E316***			

FR-E316 Attaching Upper/Lower Frame

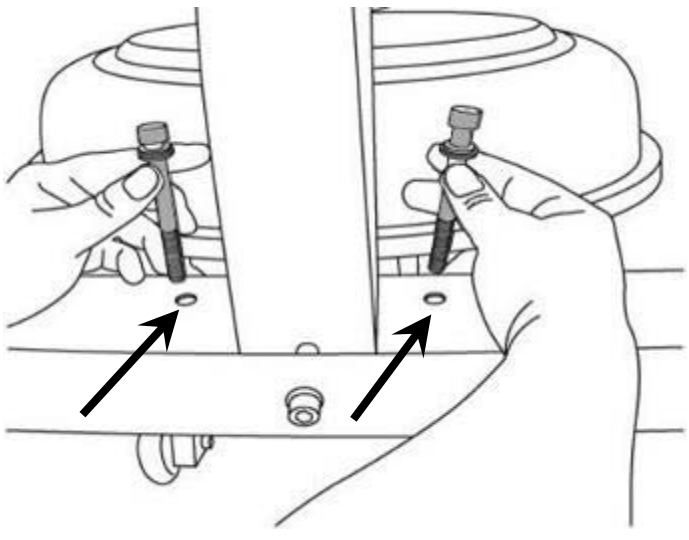




Remove contents from box, and lay Upper Frame (tank assembly) on its back. Tilt slightly to one side and allow transport wheels to drop into position. Secure with **M8x35mm bolt**. Repeat on opposite side.



Attach Lower Frame to Upper Frame with center bolt (**M10x90mm bolt[15]**, **standard washer[20]** and **spring washer[21]**) but **do not tighten**.



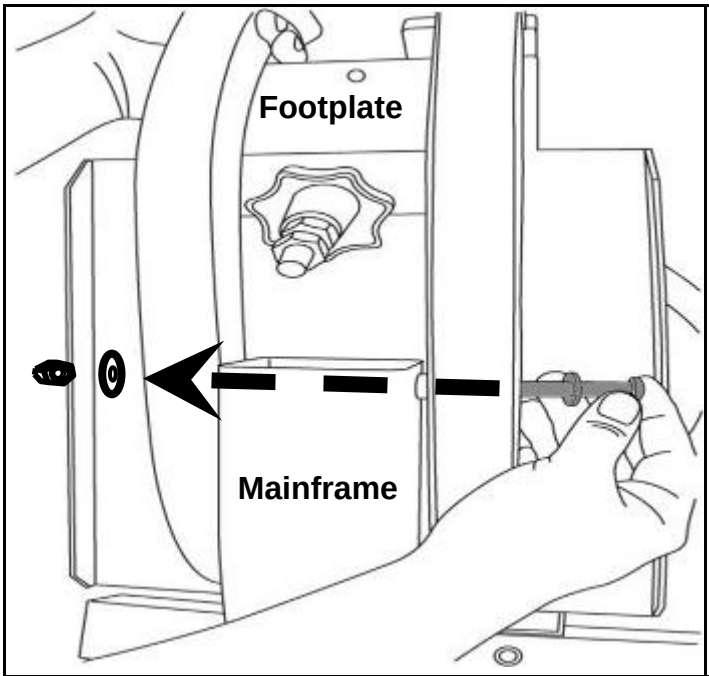
Install left and right side bolts (**M10x90mm bolt[12]**, **standard washer [20]** and **spring washer[21]**) . Tighten all three.

WARNING

Do not attempt to stand rower until footplate is attached.

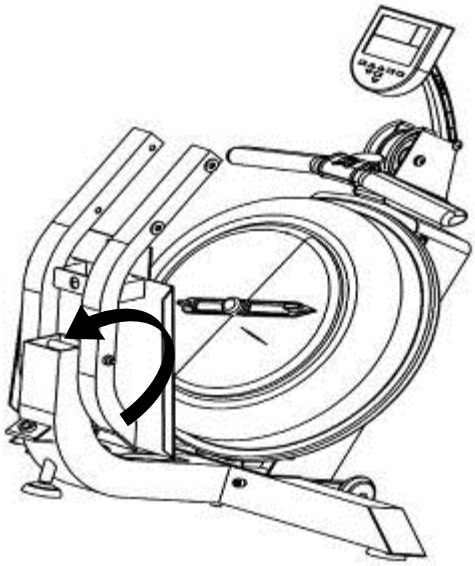
See following page for details

FR-E316 Attaching Footplate and Seat Rails

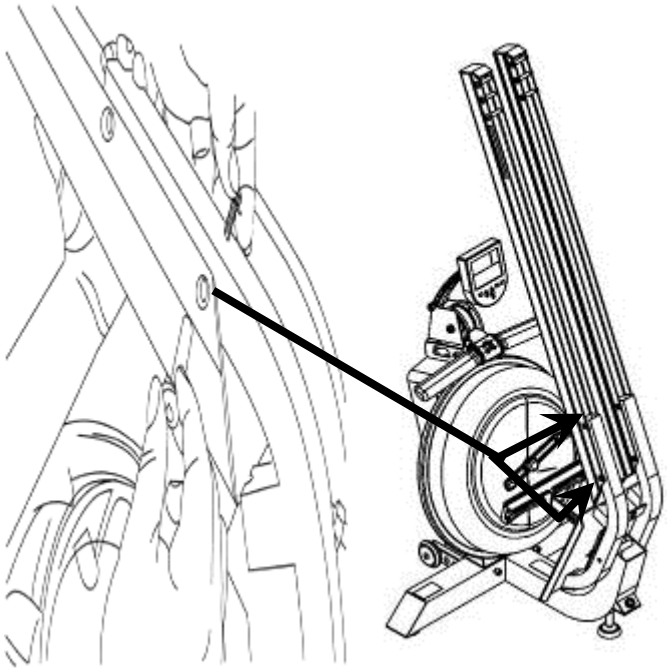


Attach the Footplate to the Mainframe (**M10x180mm bolt[14]**, **M10 Nylock nut [24]** and **2 x Washers[20]**).

Caution: The Footplate is heavy, FDF recommends two people for this section of assembly.



Note: Once Footplate is secured, the assembly can be continued from this position for added stability.

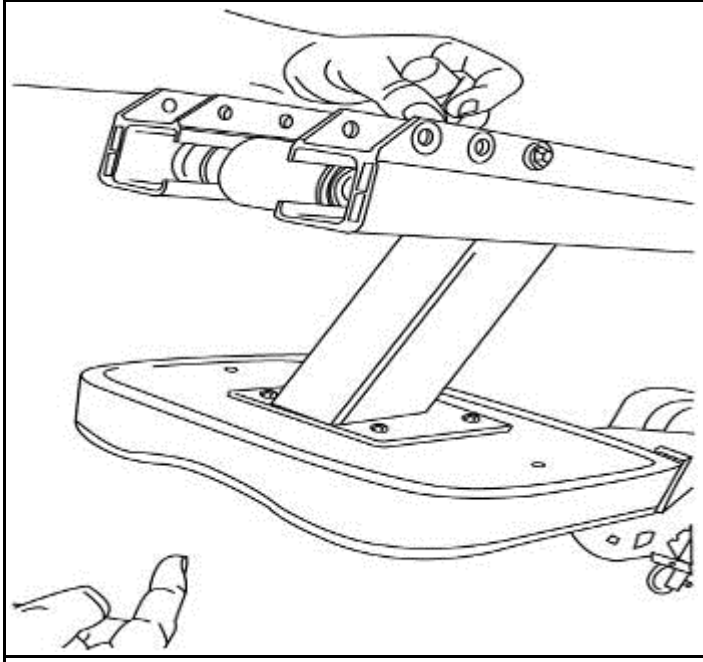


Attach the **Seat Rails[3]** to the **Foot-plate[4]** using **M10x47.5 bolts[12]**, **M6x20 bolts[10]**, **screws** and **4x10mm [20]/4x6mm[19] washers**.

WARNING

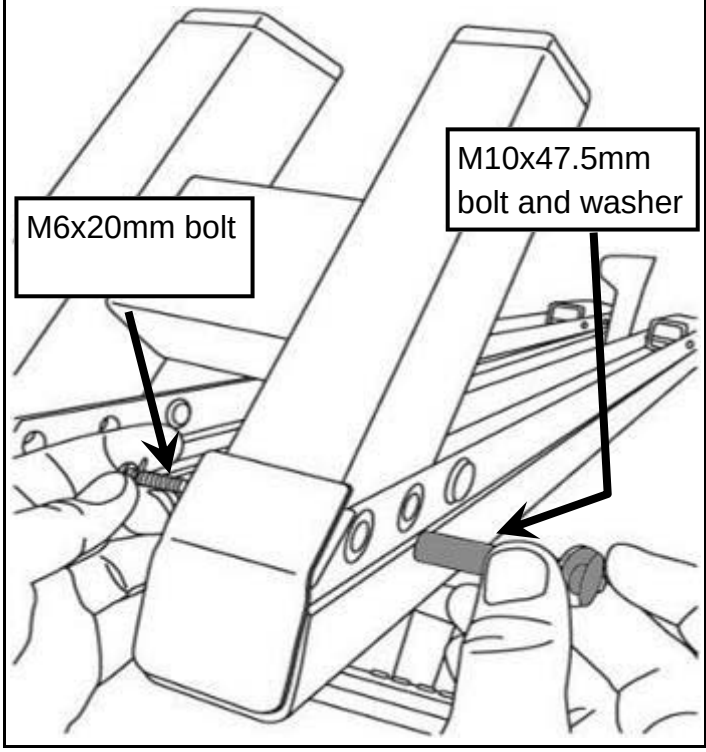
Keep hands clear of pivoting parts during assembly.

FR-E316 Installing the Rower Seat and Rear Leg



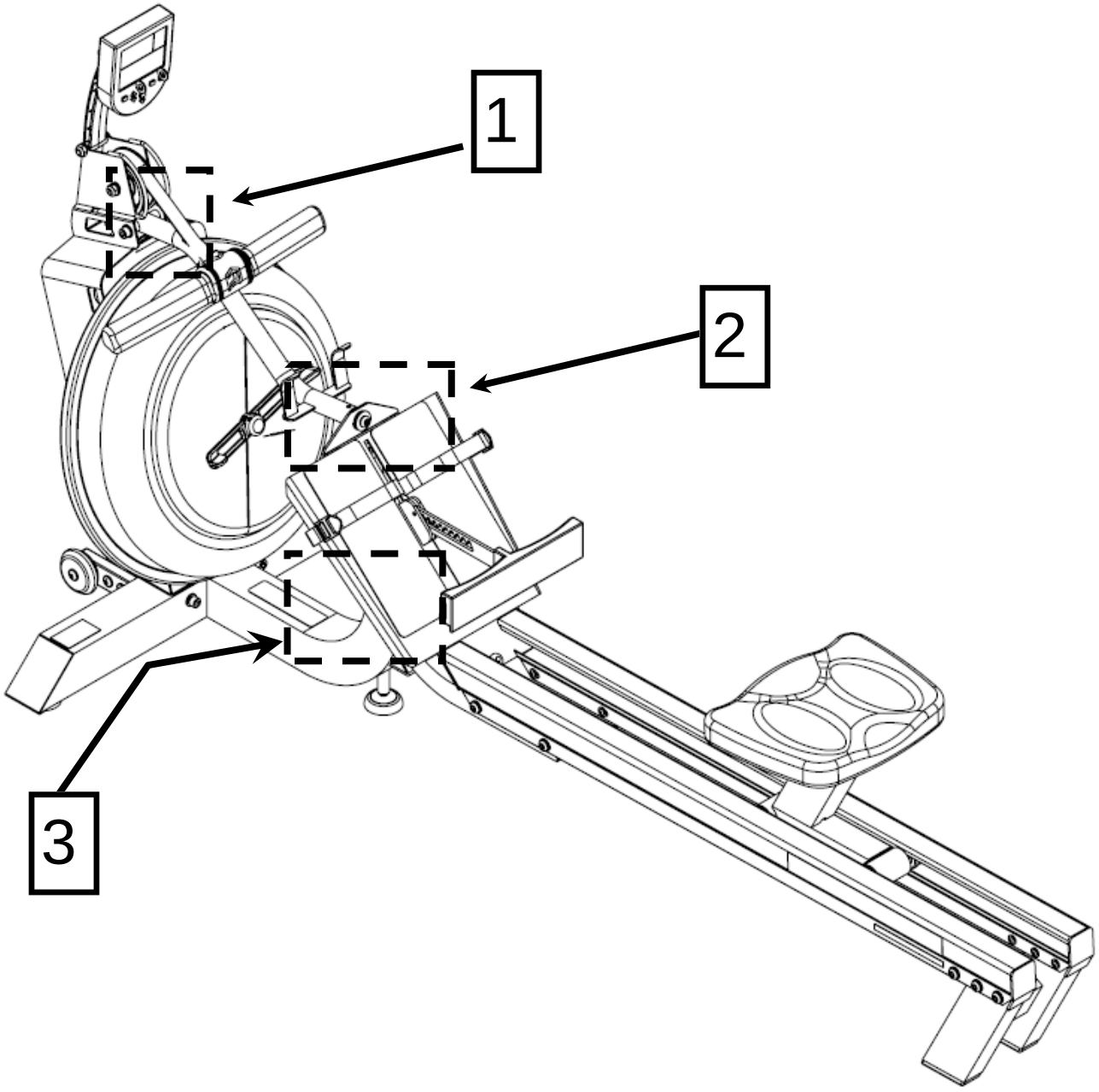
Install **the Rower Seat[5]** with seat indentation facing rearward.

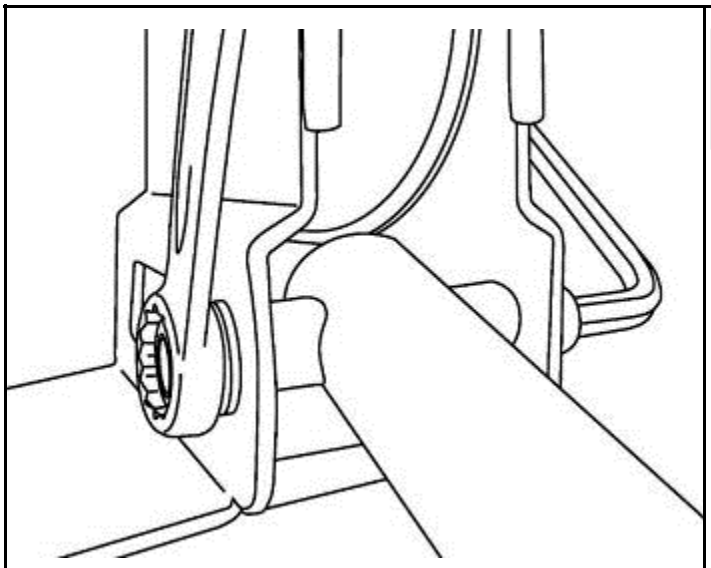
Caution: The Rower Seat is heavy. Grasp firmly and use both hands to guide the Rower Seat down the Seat Rail.



Install **the Rear Leg[6]** Assembly to the Seat Rails using **M10x47.5 bolts[12]**, **M6x20 Allen key screws[10]** and **4x10mm[20]/4x6mm[19]** washers.

FR-E316 Installing S-Bend and Frame Tensioning Bolt

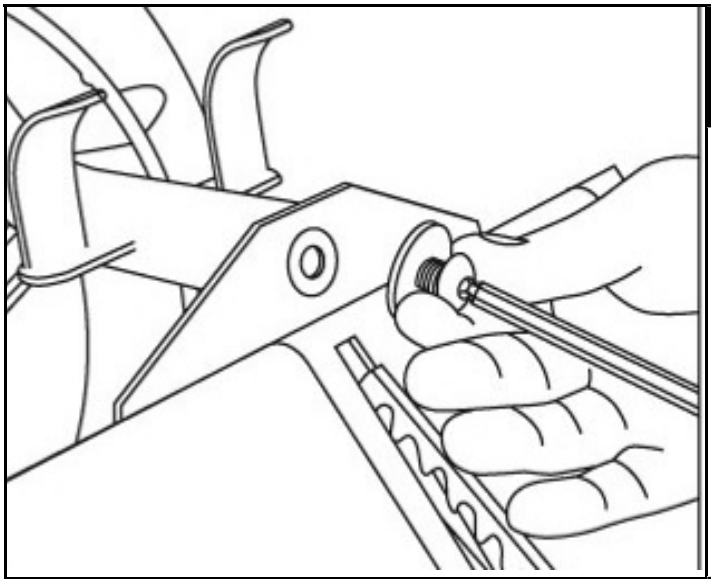




1

Carefully lower the rower to its normal operating position to complete assembly with S-bend installation and frame tensioning bolt.

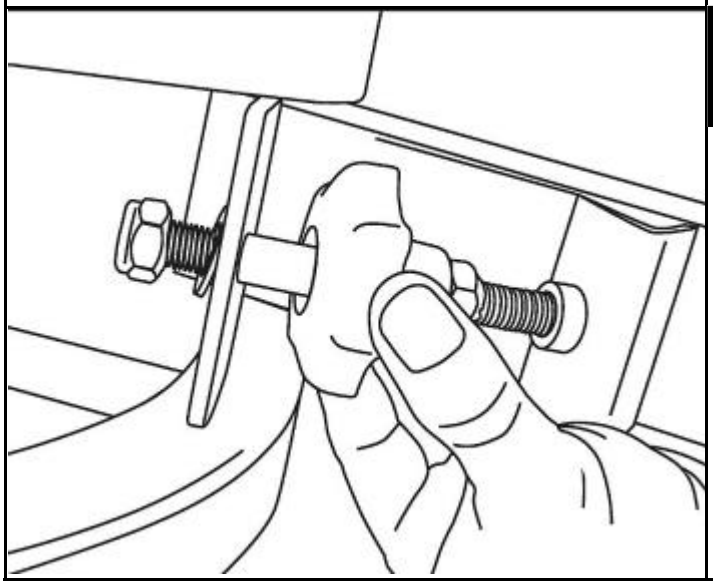
Install rear of **S-Bend[7]** onto the Upper Frame using **M10x80mm bolt[14]**, **M10 Nylock Nut[24]** and **2x M10 washers [20]**.



2

Tilt Upper Frame slightly forward and secure front of S-Bend to Footplate using M10x15mm bolt and washer.

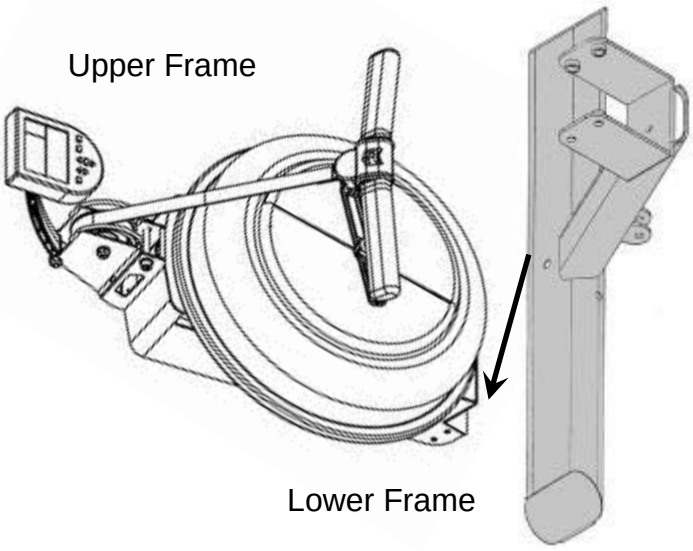
(Note: M10x15mm bolt and washer are pre-installed on the S-Bend for your convenience)



3

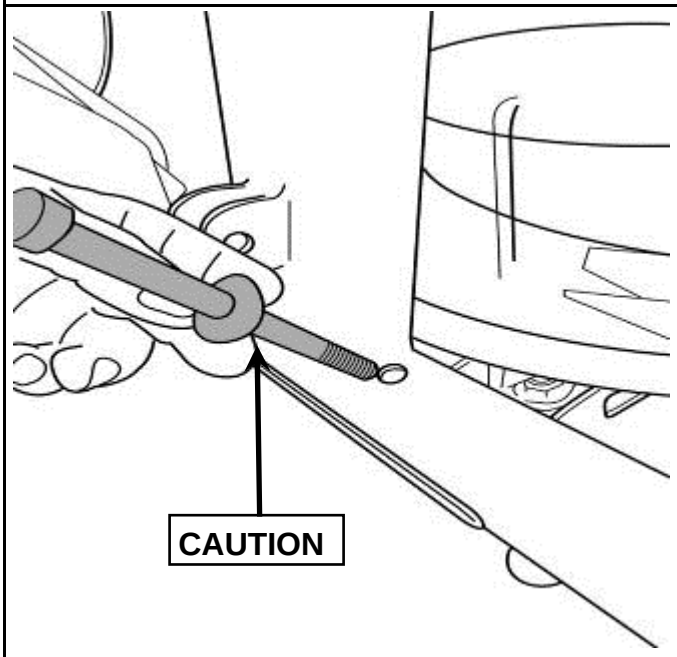
Install the Frame Tensioning Bolt and tighten as far as it can go. This will pre-tension the frame to the proper position and complete the assembly.

VX-2 Attaching Upper/Lower Frame



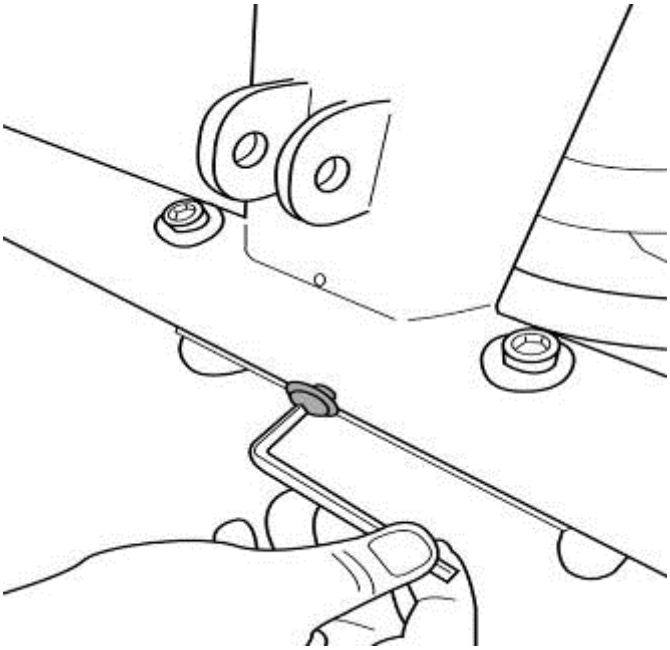
Open box and remove contents. Lie Upper Frame on it's back as shown here. In the bolt pack, locate **2xM10x140mm bolts[16]** and **curved washers[23]** along with **1xM10x65mm[13]** dome head bolt and **washer[20]**. Connect the Lower Frame to Upper using M10x140mm bolts first and do not tighten before installing the third M10x65mm bolt as shown lower right.

Caution: the curved washers can damage paint if not lying flush against oval tube when tightened. Use care when securing.



M10x140mm bolts (2x)[16] and **(2x) curved washers[23]**. Do not tighten.

CAUTION: Align the curved washer with curvature of frame for a flush fit and to avoid scratching.

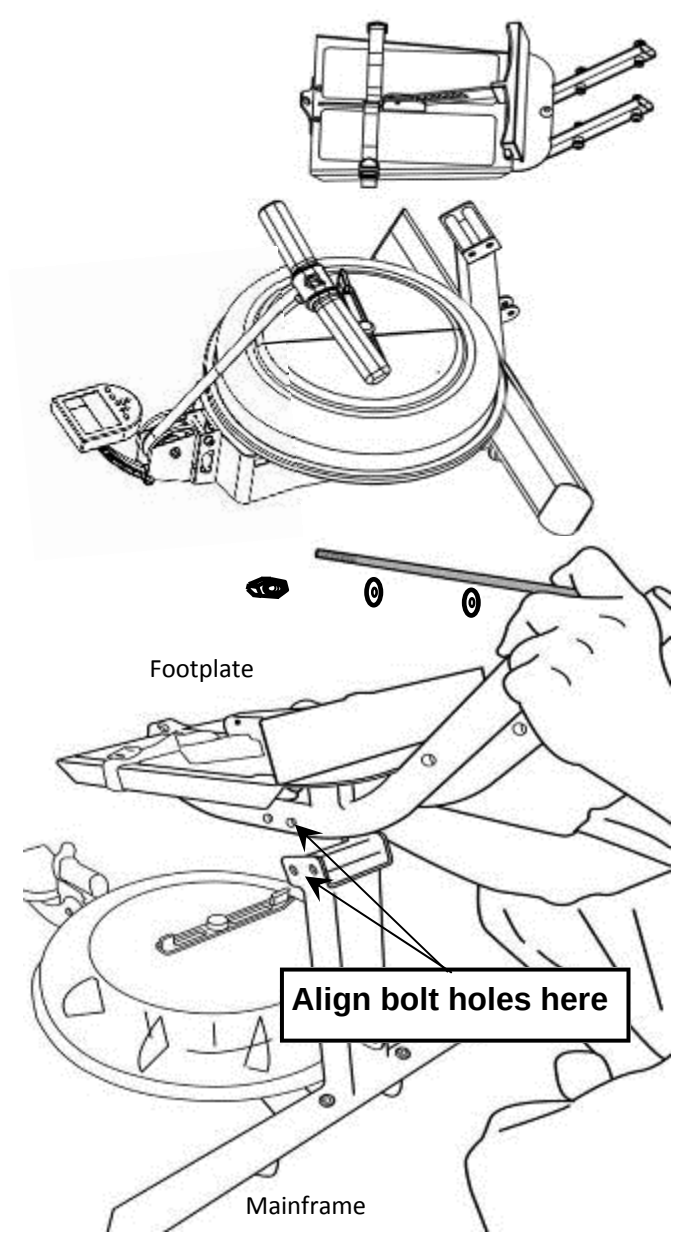


M10x65mm bolt[13] and **washer[20]** Tighten all three bolts.

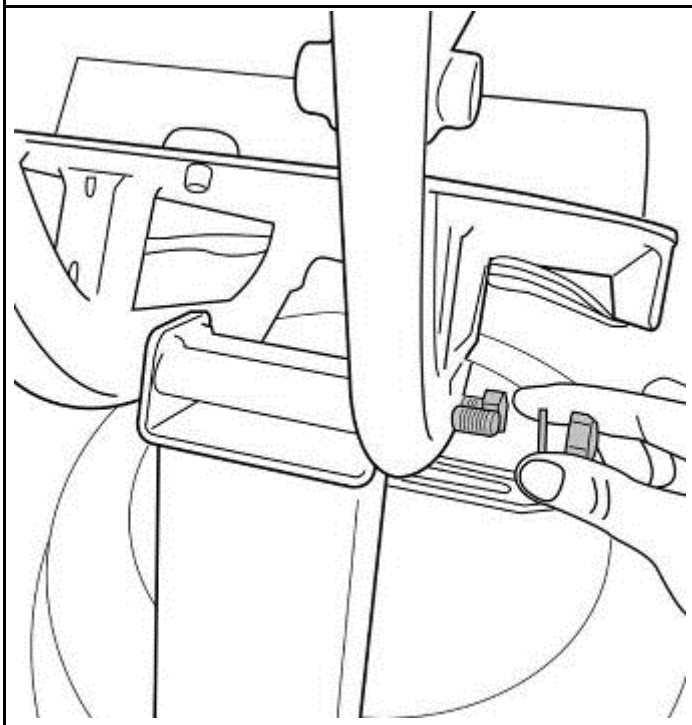
WARNING

Do not attempt to stand rower until Footplate/Seat Rail assembly is attached. See following page for details.

VX-2 Attaching Footplate to Mainframe



Using **2x 170mm bolts[17]**, **4x standard washers[20]** and **2x Nylock nuts [24]**, attach the **Footplate[4]** to the **Mainframe[1]** of the rower as shown.



2x M10x170mm bolts[17], **4x washers [20]**, and **2x Nylock nuts[24]**.

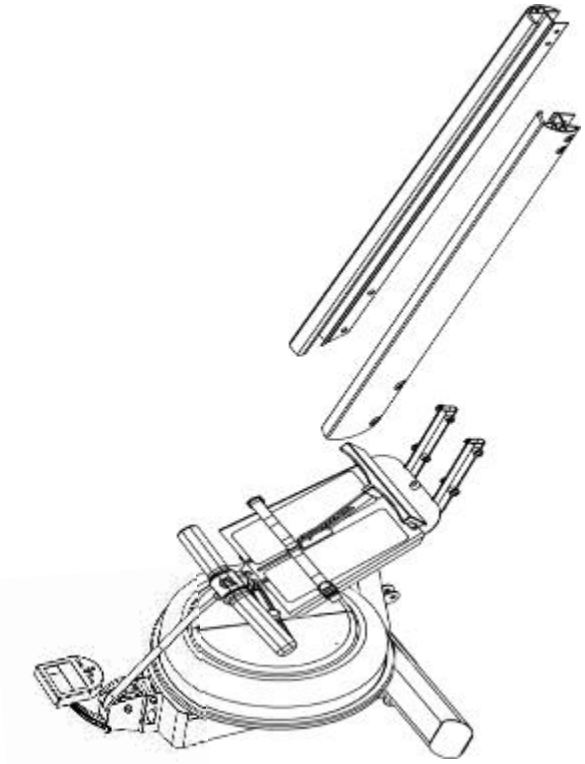
Note: Tighten bolts securely before moving on to next stage of assembly.

WARNING

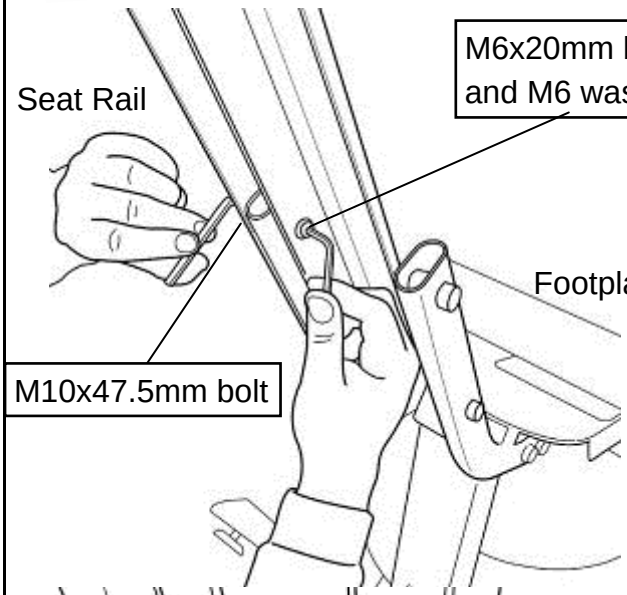
Do not attempt to stand rower until both Footplate and Seat Rails are attached.

See following page for details.

VX-2 Attaching Seat Rails to Mainframe

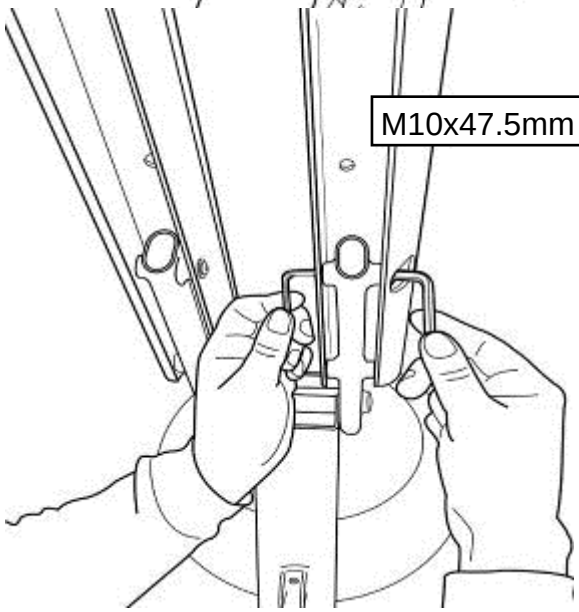


Install **Seat Rail[3]** onto Footplate/ Mainframe Assembly using **4x M10x47.5mm bolts[12]** (no washers) and **4x M6x20mm bolts[10]** with **M6 washers[19]**



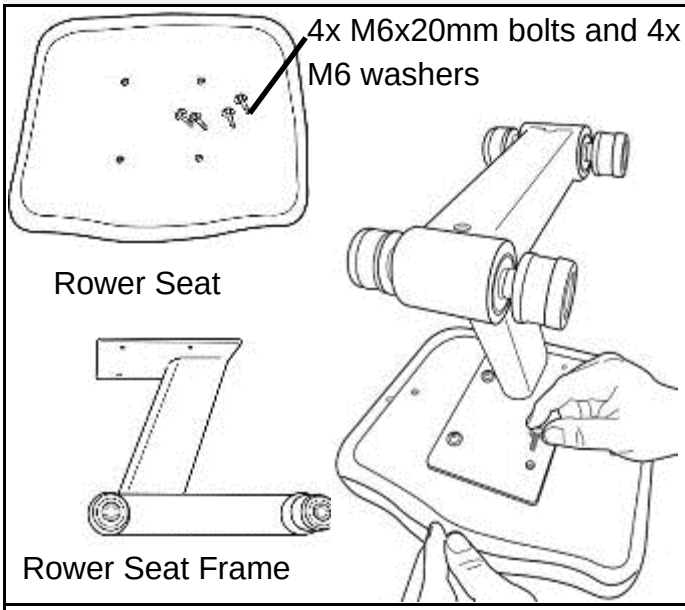
Install the right Seat Rail.

Tip: Install both **M10x47.5mm bolts[12]** first from the outside to hold the rail in position before securing from the inside with the **M6x20mm bolts[10]** and **M6 washers[19]**.

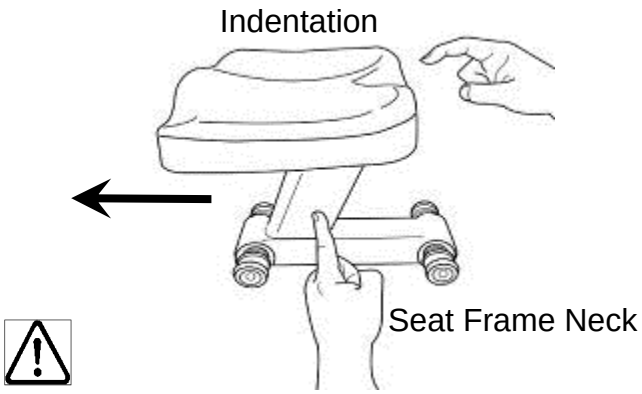


The front of the Seat Rails have potentially sharp edges. Use care when handling.

VX-2 Rower Seat Assembly



Install the Rower Seat onto the Rower Frame using **4x M6x20mm bolts[10]** and **4x M6 washers[19]**.



Completed Rower Seat.

The Seat must be mounted exactly as shown.

The Seat Assembly is placed into the Seat Rails facing in the direction of the arrow.

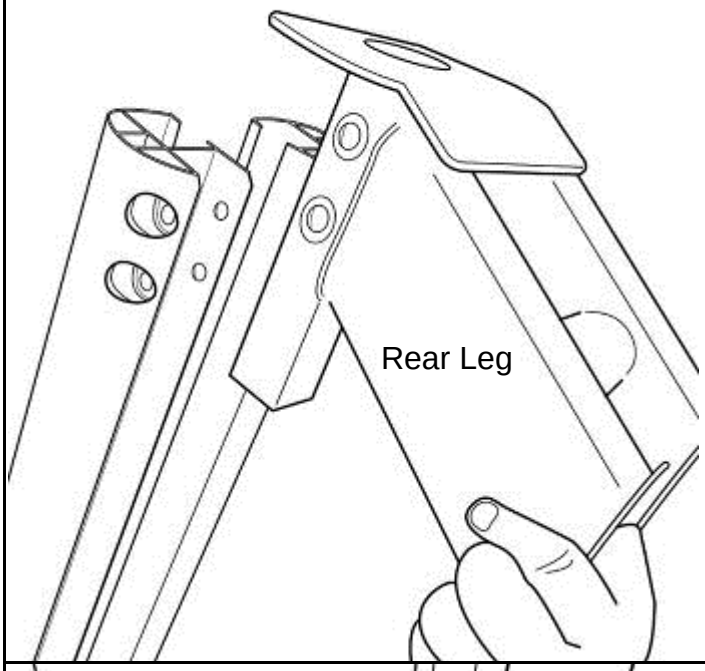
The Seat Indentation must be towards the rear of the machine.

CAUTION:

The **Rower Seat[5]** is heavy.

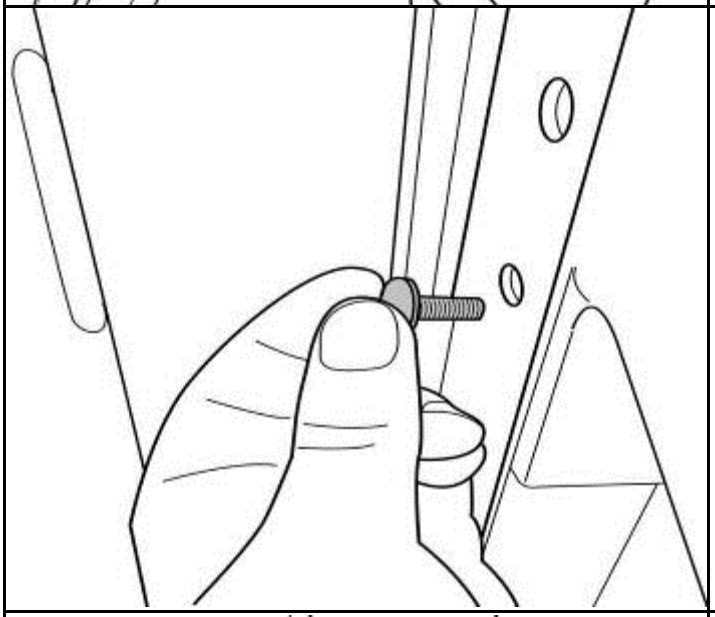
Use both hands and keep fingers clear of rower channels when guiding seat down the seat rails.

VX-2 Installing the Rear Leg

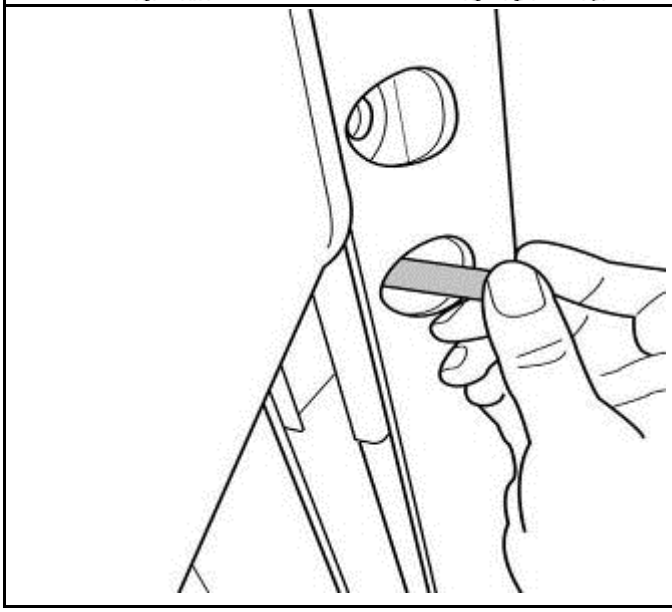


Using the **Rear Leg[6]**, **4x 10x47.5mm bolts[12]**, **4x M6x20mm bolts[10]** and **M6 washers[19]**, mount the Rear Leg onto Seat Rails and secure as shown below.

Tip: Install all M10x47.5 bolts first from the outside to hold the Rear Leg in position before securing from the inside with the M6x20mm bolts and M6 washers.

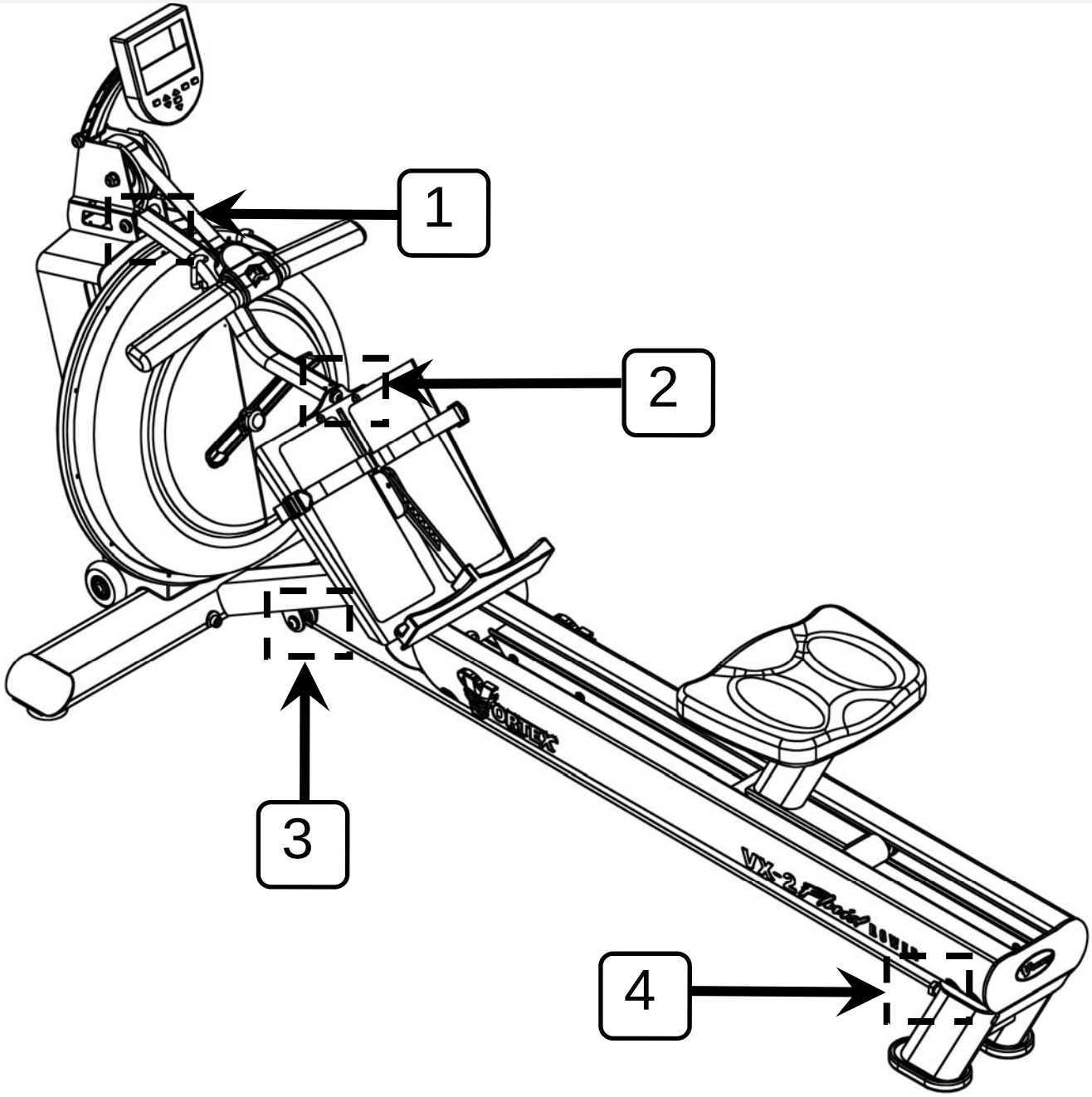


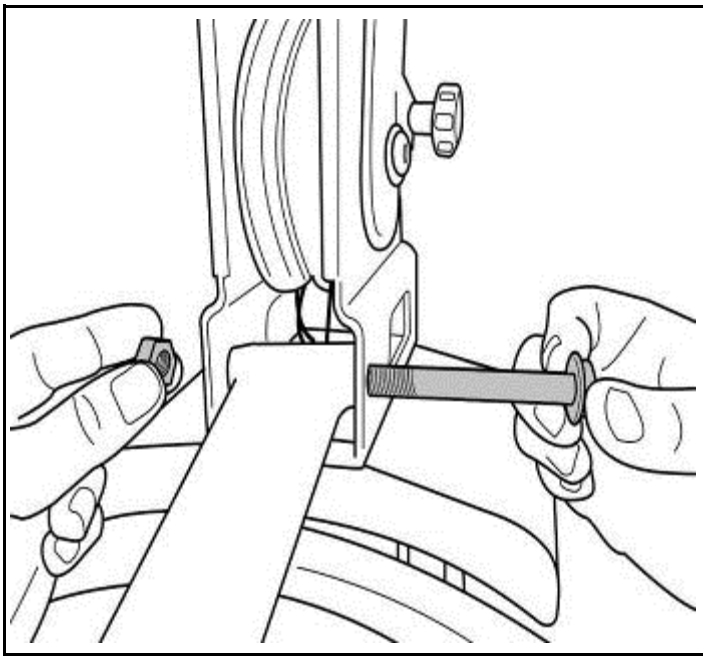
M6x20mm bolt[10] and **M6 washer[19]**



M10x47.5mm bolt[12]

VX-2 Installing S-Bend and Frame Tension Cable

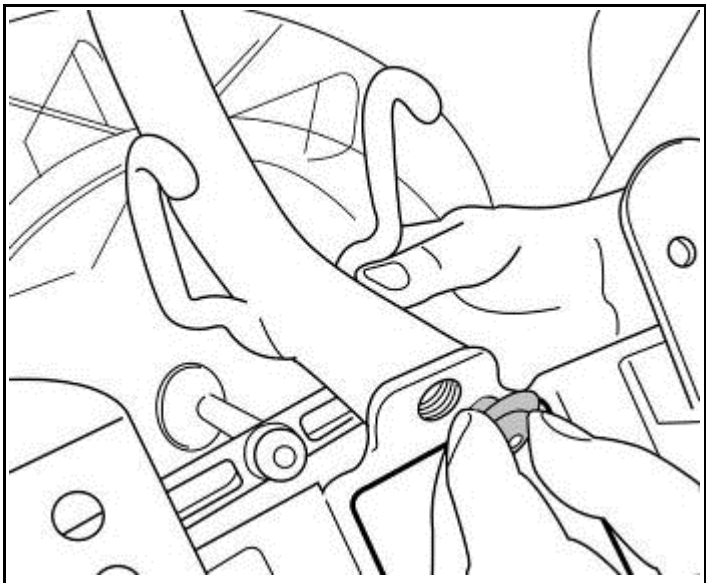




1

Carefully lower the rower to its normal operating position to complete assembly with S-bend installation and Frame Tension Cable.

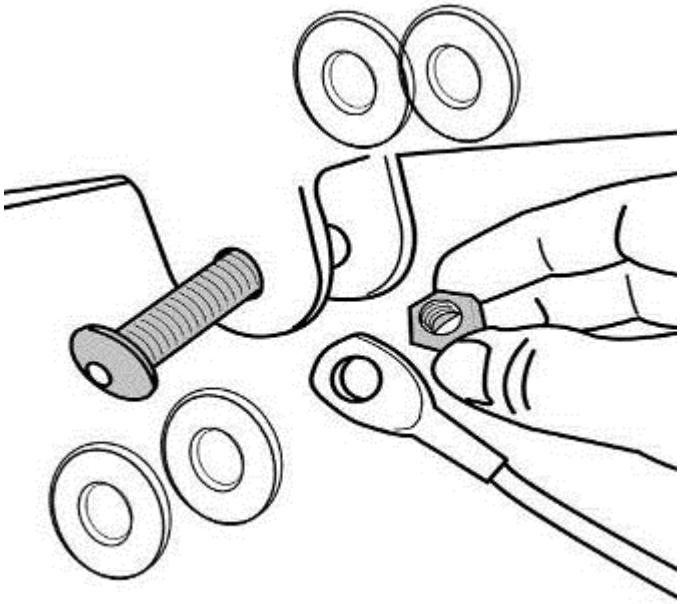
Install rear of **S-Bend[7]** onto the Upper Frame using **M10x80 mm bolt[14]**, **M10 Nylock[24]** and **2xM10 washers[20]**.



2

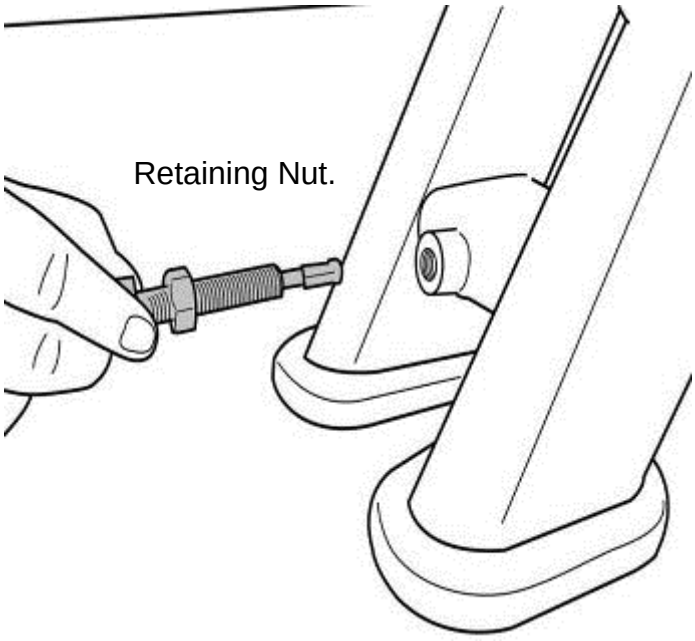
Attach the S-bend to the Footplate as shown. Tilt the upper frame slightly forward to align in the proper position.

Note the **M10x15mm** S-bend bolt with washer is pre-installed on the S-bend for your convenience.



3

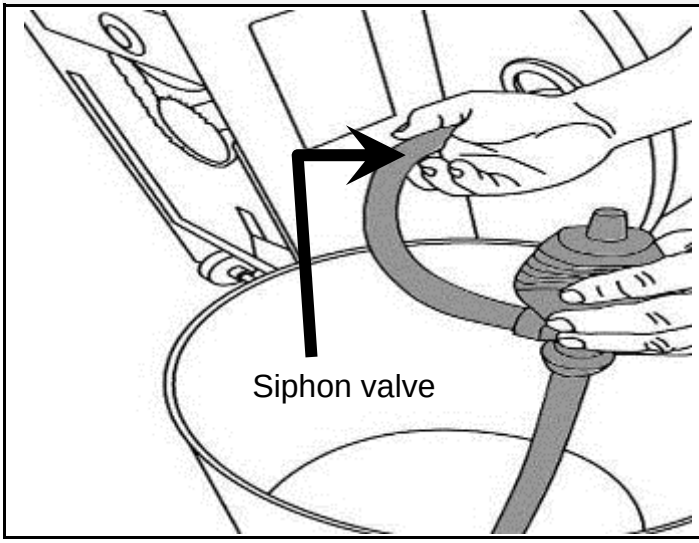
Align the **Frame Tension Cable[9]** eyelet with the Bracket on lower frame and install with **M10x40mm Bolt[11]**, **4x M10 plastic washers[22]** (2 either side of eyelet and inside the metal bracket) and **Nylock nut[24]**.



4

Align and screw the opposite end into the Rear Leg as shown. Tension until taut and then secure with Retaining Nut.

Tank Filling and Water Treatment



Fill tank as shown left. Use the yellow plug only for filling.

Fill with adjuster handle at level 16 only.

Once filling is complete, use a coin or large blade screwdriver to tighten tank plug into place.

Warning:

Do not for any reason insert fingers into the tank!

1. Filling requires a large bucket (not supplied) and the Fluid Rower siphon (included). Filling will take approximately 7.6 liters of water.

2. Unscrew the yellow tank plug on tank back and insert the flexible tube into the rear of the tank while keeping the rigid hose in the bucket. Note: The siphon tube may be impeded by one of the impeller blades. Use the siphon only to push the impeller down slightly.

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

3. Move the adjuster handle to level 16, and begin filling. **Note**: The siphon valve must be closed to allow siphoning action to occur. Tip: Placing the bucket in an elevated position will allow the siphon to continually pump water into the tank. **Do not fill past the calibration mark indicated on the tank!**

Note: Opening the siphon valve will stop the pumping action. Use this feature to avoid water spillage when nearing filling completion.

4. Once filling is complete (to the proper calibration level as indicated on the tank), follow water treatment schedule as shown.

Note: the lower tank plug is permanently sealed.

Water Treatment Procedures:
Add Chlorine tablet.

Note: The amount of water treatment can vary widely depending on the Rower's location and exposure to sunlight. DO NOT, UNDER AN CIRCUMSTANCES USE ANY TREATMENT TABLETS OTHER THAN THOSE SUPPLIED WITH YOUR ROWER. Your rower box contents include 4x water treatment tablets, which is sufficient for several years of water treatment. Treat when water becomes discolored or shows signs of Algae/Bacterial growth. ***To purchase additional chlorine tabs, please consult your nearest regional dealer/distributor or check our website at www.firstdegreefitness.com***

Caution:	Use a drop cloth under the tank both when filling the tank to avoid staining floor or carpet.

Long Term Water Treatment and Basic Operation

CAUTION: Important: Do not fill past the calibration mark as indicated on the tank level sticker or water spillage can occur. See tank filling/water treatment page for details.

Long Term Water Treatment:

Do not use any water treatment other than the tablets supplied with this machine. For replacement tablets, contact your local First Degree Fitness distributor.

Water treatment schedules for the FLUID ROWER will vary according to the fluid tanks exposure to sunlight, but expect 8-12 months near a bright, sunlit window and 2 years or more for a darker location. At the point of finding the water slightly cloudy, add a Chlorine tablet.

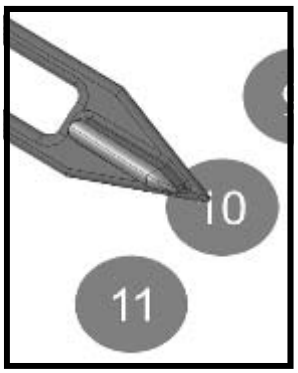
CAUTION: It is recommended that a drop cloth be used under the fluid tank whenever the tank is open for water treatment

Vertical Storage:

The FLUID ROWER can easily be stored in a vertical, upright position. For safety, choose a suitable location, such as a corner of a room. It is recommended that something soft (such as carpet or a small towel) be placed under the upper rear of the unit to avoid marring either the paint or Perspex cover.

Resistance:

The level of resistance is determined by the level indicator located on the front of the tank. Level one indicates lightest resistance, level sixteen represents heaviest resistance. Allow three to four strokes after adjusting resistance handle to allow the water to move to the correct location.



Heel Support Adjuster:

The FLUID ROWER has a unique and easy to use Heel Support Adjuster. Simply slide the Adjuster up or down to the required position. This should place the ball of your foot directly under the horizontal Foot Straps. Secure Foot Straps. The Heel Support allows the user to row without shoes if desired.

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.

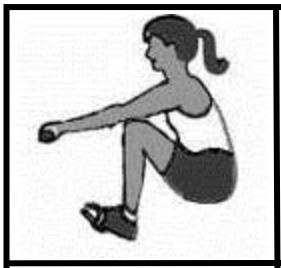
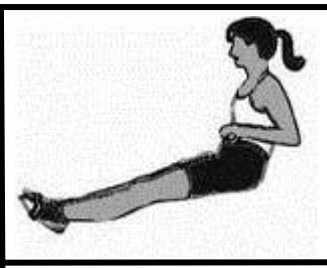
4. For further details regarding rowing technique please refer to our international website at www.firstdegreefitness.com

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.

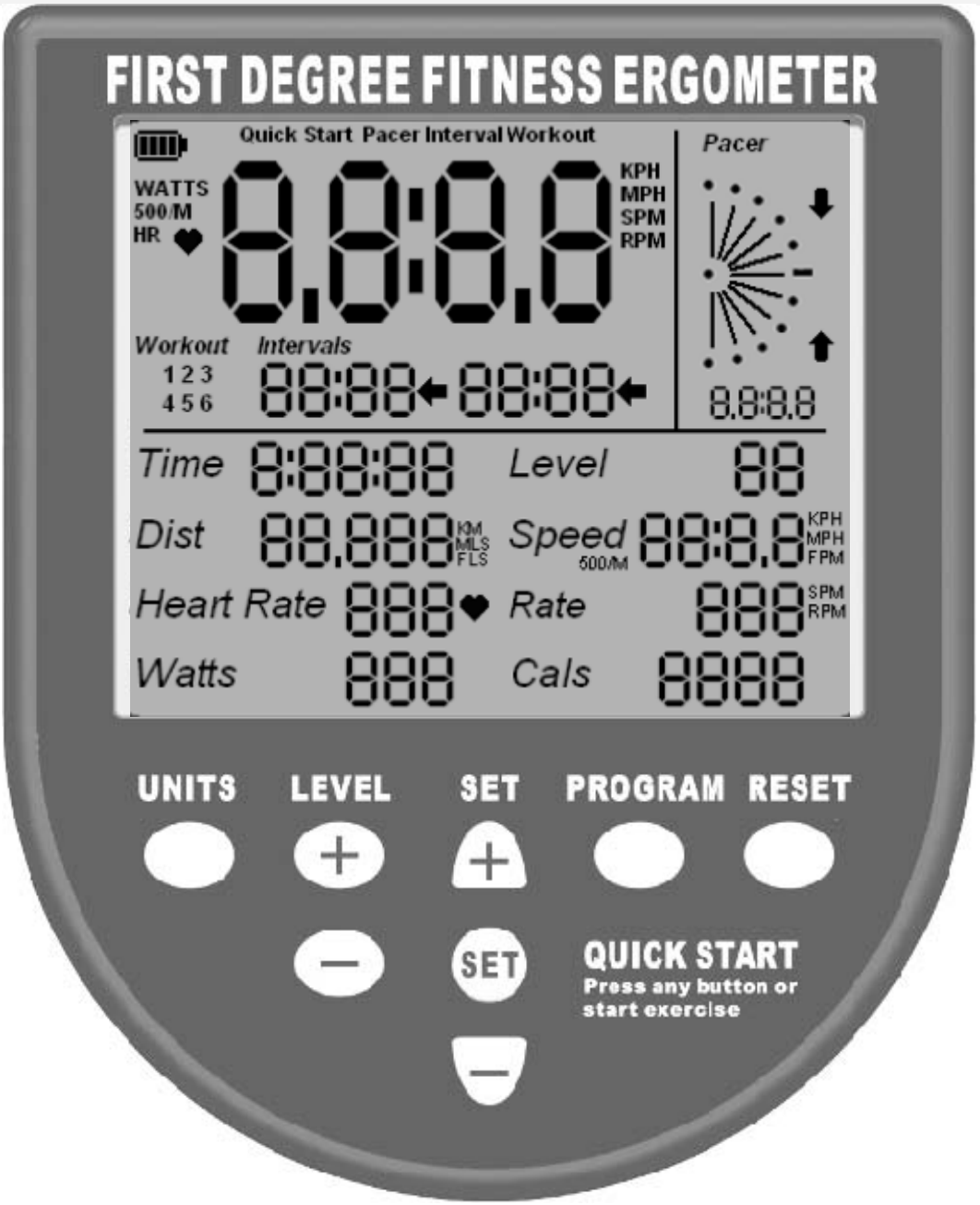
				
Catch Comfortably forward with straight back and arms.	**Drive** Push with the legs while arms remain straight.	**Finish** Pull through with arms and legs rocking slightly back on your pelvis.	**Recovery** Upper body tips forward over your pelvis and move forward.	**Catch** Catch and begin again.

CAUTION

Always consult a doctor before beginning an exercise program.

Stop immediately if you feel faint or dizzy.

Fluid Rower Ergometer



Quick start: Provides instant workout information. Just start training to activate. You can choose to change UNITS displayed

UNITS: Displays WATTS, SPM, HR, 500/m

LEVEL: Adjustable from 1-16. Match LEVEL number with resistance level on the Fluid tank.

SET: Changes Time, Distance parameters

PROGRAM: Clears current exercise program

RESET: Clears data

Note: For complete operational instructions, please refer to the computer manual, which is included with your FLUID ROWER Series rower.

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

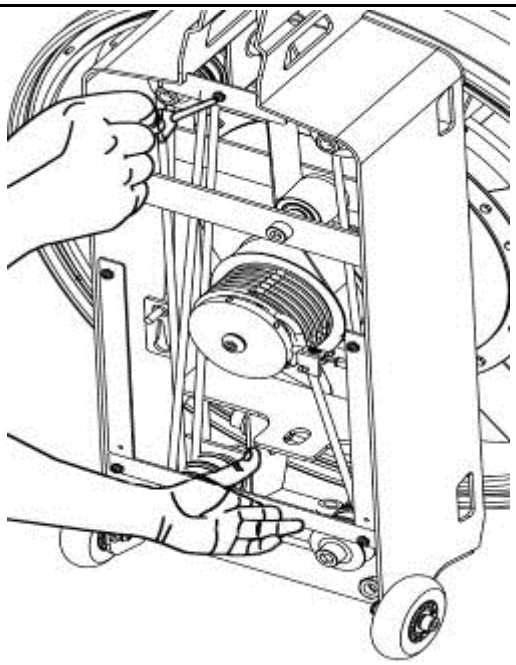
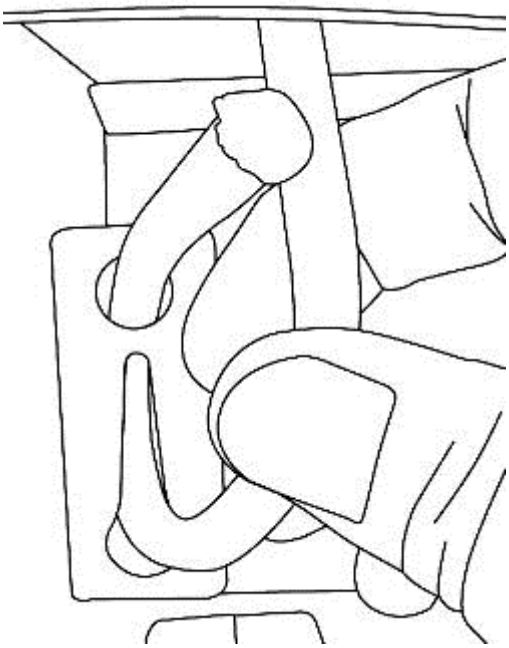
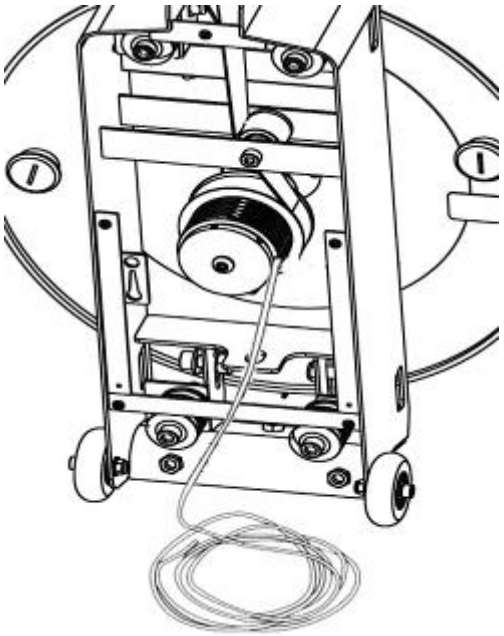
Maintenance chart.

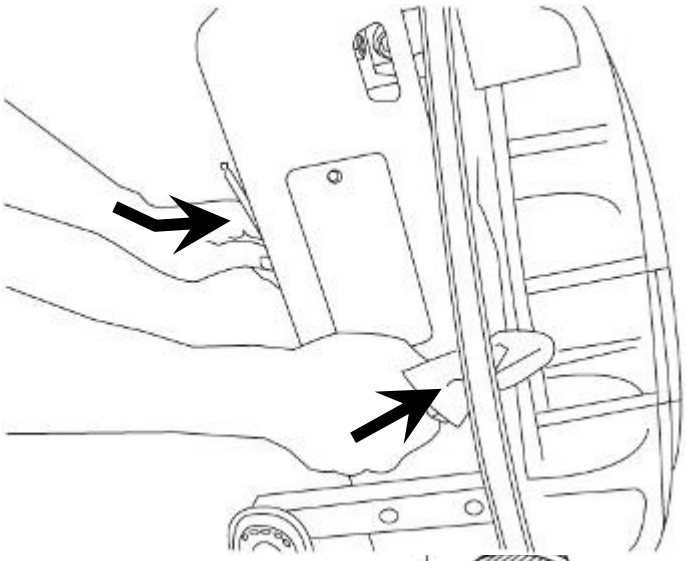
Item	Timeframe	Instructions	Notes
Seat and Seat Rails.	Weekly.	Wipe Seat Rails with lint free cloth. Spray seat rails with a light coat of silicone spray.	
Frame.	Weekly.	Wipe down with lint free cloth.	
Tank and Water Treatment.	12 months to 2 years.	Follow instructions as specified in the “Water Treatment” section of this manual.	
Bungee Cord.	Check every hundred hours for correct tension and for signs of wear.	The Bungee Cord should last for many years. If a bungee cord change is required, please follow the instructions provided in the “Changing the Bungee Cord” section of this manual.	
Rowing Belt.	Check every hundred hours for correct tension and for signs of wear.	The Rowing Belt should provide many years of trouble free use. If a Rowing Belt change is required, please contact your local service representative or go online at www.firstdegreefitness.com for further details.	
Frame Tension Cable	Check regularly for proper tension.	Tighten until taut. See Basic Operation page for details	

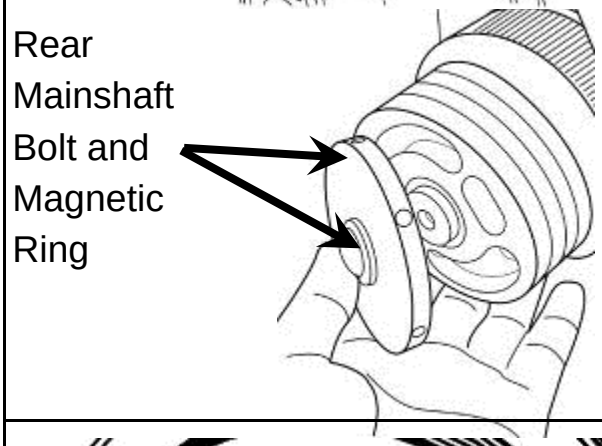
Troubleshooting

Fault	Probable Cause	Solution
Water changes color or becomes cloudy.	Rower is in direct sunlight or has not had water treatment.	Change rower location to reduce direct exposure to sunlight. Add water treatment or change tank water as directed in the water treatment section of this manual. Consider using distilled water to refill tank.
Rowing stroke return is too light.	Bungee not under enough tension.	Open rear Perspex cover, cut bungee tie wrap . Tighten by small increments using the bungee tie off tab point and test tension by allowing the rowing handle to return to its furthest point forward while still having some slight tension. Note light fraying of the bungee cord is normal.
Rower rocks from side to side when sitting on floor	Front/Rear frame levelers need adjusting	Adjust the front two frame levelers or rear leg levelers until stability is reached. **Note: It is normal for the lower rear leveler to rest slightly off the floor.**
Front of rower lifts slightly during vigorous rowing.	Lower rear frame leveler too high.	Check to see that frame tensioning bolt is tightened properly. Lower rear frame leveler should be approx. 5mm off the ground.
Computer screen illuminates, but does not register when rowing.	Loose or failed connection/Sensor gap too wide (see erratic computer display).	Check that the computer lead is connected properly. If connected properly check sensor gap. Contact your local service center if this fails to address the problem.
The FLUID ROWER computer does not illuminate after battery installation.	Batteries installed incorrectly or need replacing.	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.
The FLUID ROWER computer display is erratic while displaying SPM and 500meter times.	Gap between sensor and magnetic ring is too wide.	Adjust sensor location using rear sliding adjustment located inside rear Perspex cover.
Excessive frame flex during hard rowing.	Frame Tension Cable is too loose	Loosen frame tension cable Retaining Nut and tighten cable until taut.

Replacing the Bungee Shock Cord

	Remove the Perspex cover from rear of upper frame. ⚠ Disconnect sensor lead before removing cover completely.
	Move the rowing handle from the S-Bend handle catch to a point where it is resting on top of the tank . This helps line up the Bungee Cord hole for easier removal/ replacement. Detach Bungee Cord from lower rear attachment point.
	Unwrap the Bungee Cord from all of the Bungee Pulleys.



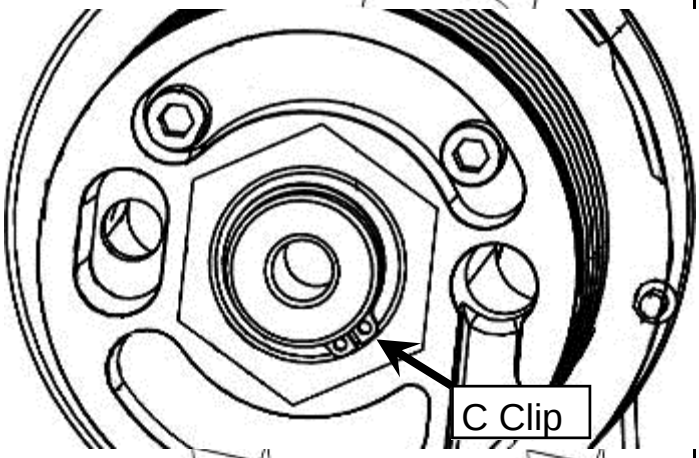


Next, remove the magnetic ring. To loosen the Rear Mainshaft Bolt holding the magnetic ring in place, it is necessary to keep the mainshaft and impeller assembly from turning with the bolt. Open the yellow tank plug, and insert a wrench wrapped in a lint free cloth (to protect the electroplating finish on the blades) to catch the impeller blade and allow the Rear Mainshaft Bolt to be loosened as shown below right with a 6mm Allen key.

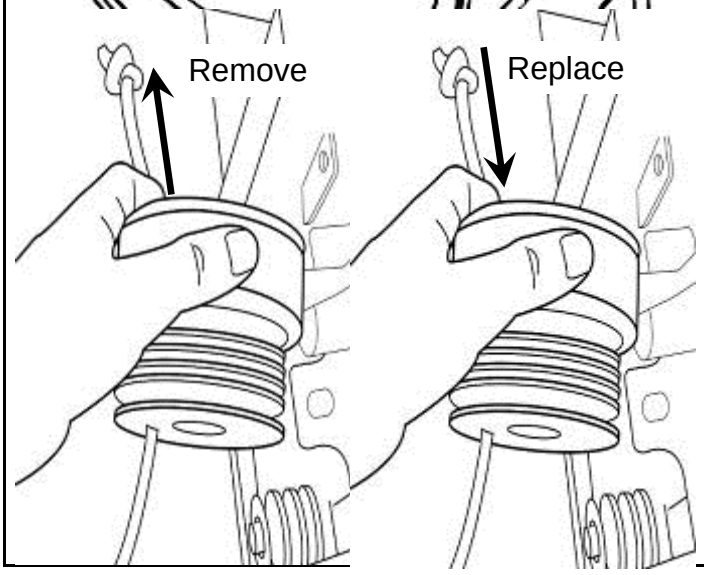
Caution: Do not allow a dissimilar metal to directly contact the impeller blade. Premature rusting could occur . Cover any tool inserted the tanks with a lint free cloth and keep fingers clear.

WARNING

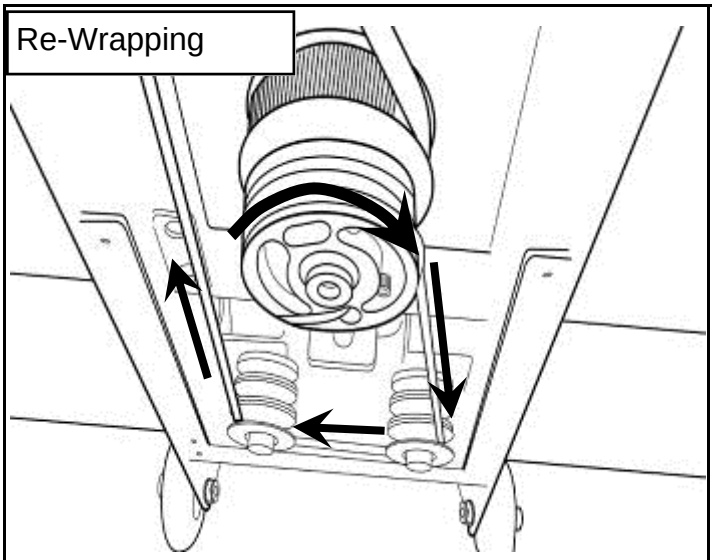
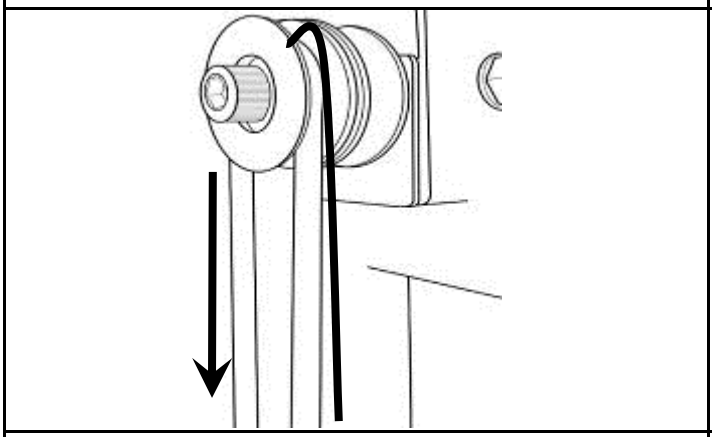
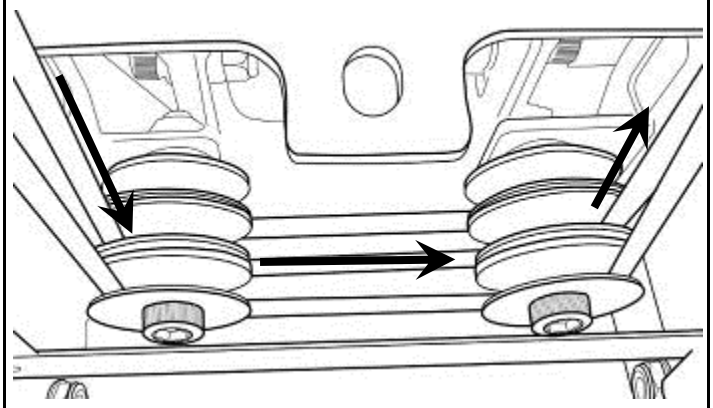
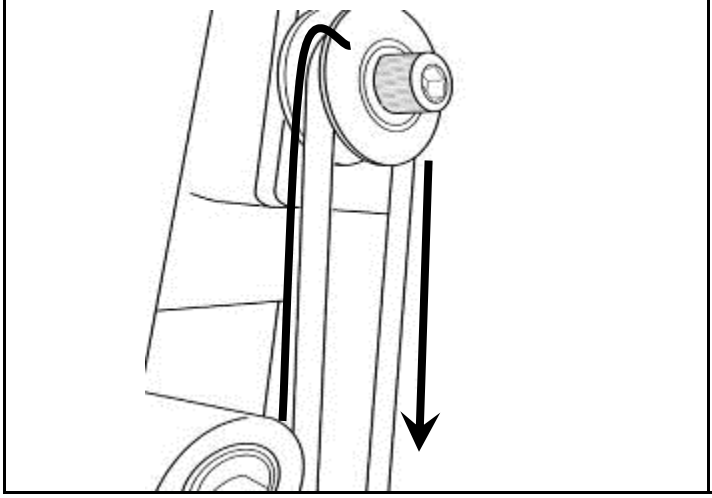
Do not insert fingers into tank!

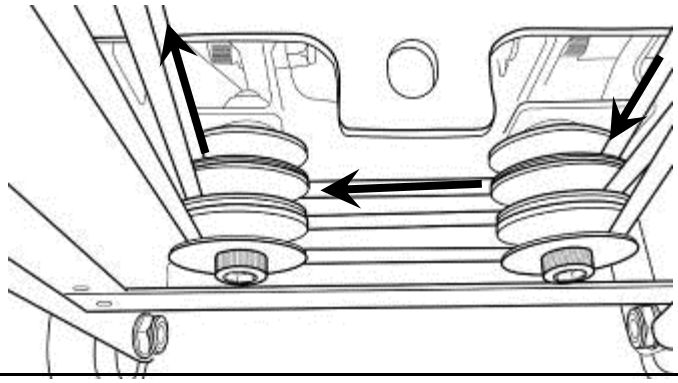
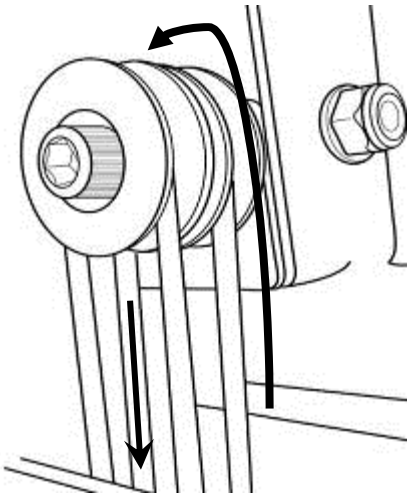
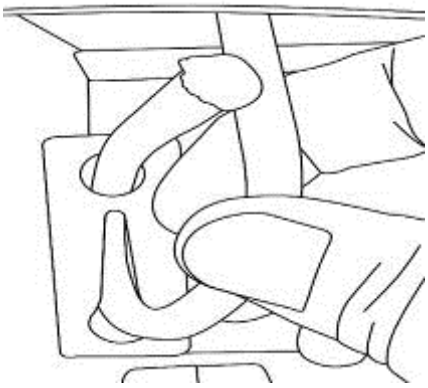
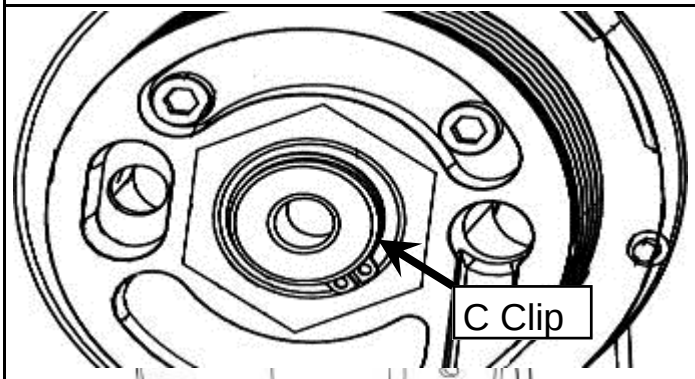
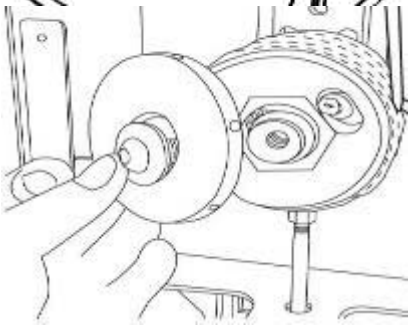


After removing the magnetic ring and the C-Clip, the Bungee Cord will be accessible. Remove the Belt/Bungee Pulley off the shaft, pull the Bungee Cord through the Belt/Bungee Pulley and remove. Thread new Bungee Cord through and pull until knotted end is held securely in the slot.



Caution: Do not loosen the Belt.

Re-Wrapping 	Once the Bungee Cord is in position, make two wraps on the Belt/Bungee Pulley in a clockwise direction, making sure the Bungee Cord tracks in the proper grooves. Once the Bungee has reached the position shown, you may begin to re-wrap the Bungee around the Bungee Pulleys, starting with lower right front Pulley to lower left front Pulley.
	Lower left front to upper left front Pulley. ⚠ **Hint:** Keep a slight tension on the Bungee Cord when threading through the Bungee Pulleys.
	Upper left front to lower middle left and right Pulleys.
	Middle right Pulley to upper right Pulley.

	Upper rear right to lower rear right and left rear Pulleys.
	Lower left rear to upper left rear Pulley.
	Upper left rear Pulley to tie off point. Finish the Bungee rewrap by tying off the Bungee. You may elect to not use a tie wrap as the metal tab is designed as a stand alone attachment point. Thread the Bungee through to desired tension and thread the Bungee end through the
 	Reattach the C-Clip, Magnetic Ring and Rear Mainshaft Bolt. Tighten securely. Finally, reattach the Sensor Lead and replace the Perspex rear cover.

Vortex VX-2 / FR-E316 Fluid Rower

INTERNATIONAL WARRANTY – FULL COMMERCIAL USE

This product is designed and constructed for use in any Health Club / Fitness Studio application.

First Degree Fitness Limited warrants that the **Vortex VX-2 / FR-E316 Fluid Rower (model VX-2/FR-E316)**, 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.

Metal Frame – 10 Year Limited Warranty
First Degree Fitness will repair or replace the metal Main Frame of the Rower should it fail due to any defect in materials or workmanship within 10 years of the original purchase. Warranty does not apply to frame coating.

Polycarbonate Tank & Seals – 3 Year Limited Warranty
First Degree Fitness 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 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.

All Other Components (of a wearing nature) – 2 Year Limited Warranty
First Degree Fitness 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, belt and pulley
Hand grips & foot straps
Seat
All pulleys, rollers & bearings
All rubber components
Computer & speed sensor (excluding replaceable batteries)
All drive belts
Aluminum seat rails

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