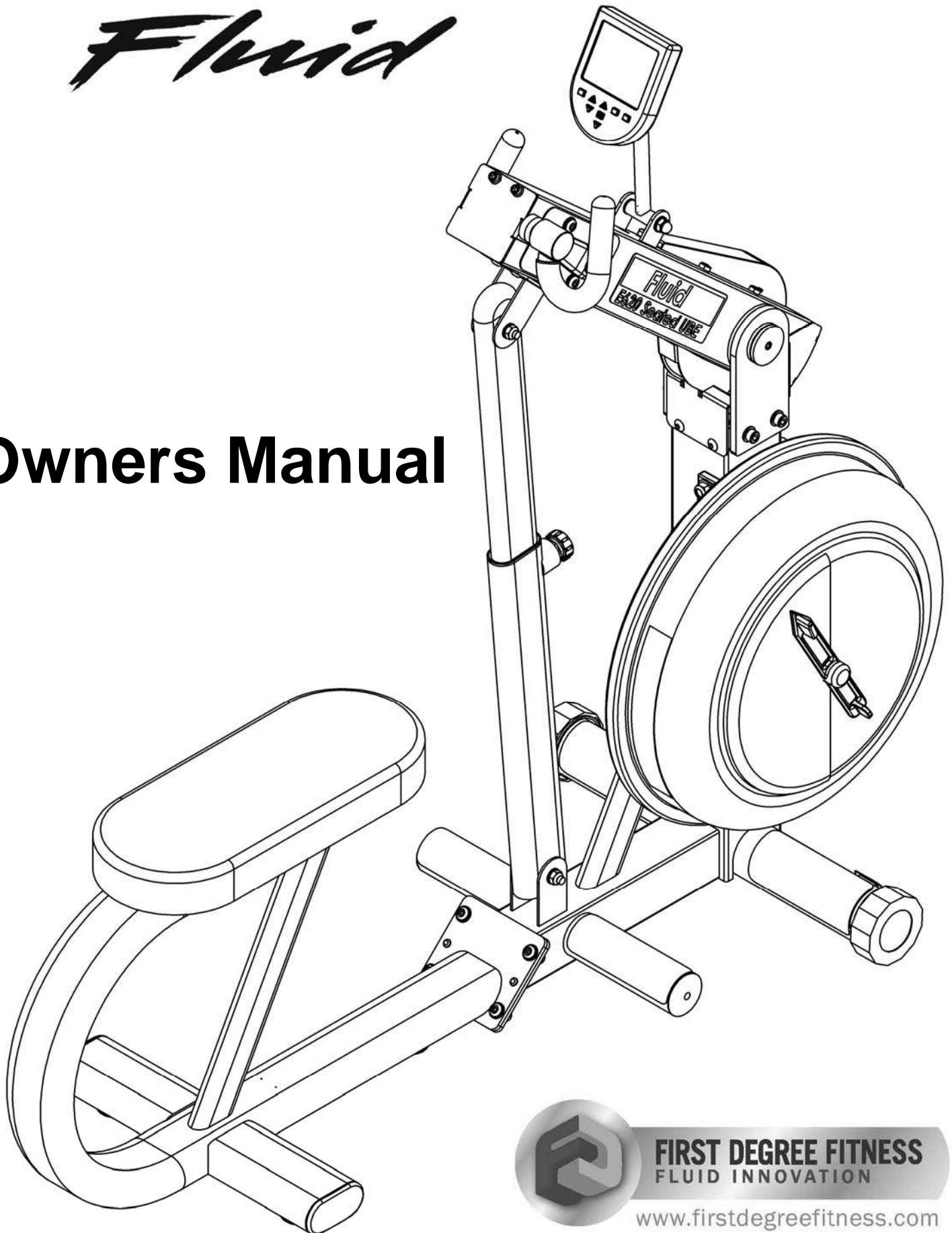


# ***E620 Seated UBE***

***Fluid***

## **Owners Manual**



**FIRST DEGREE FITNESS**  
FLUID INNOVATION

[www.firstdegreefitness.com](http://www.firstdegreefitness.com)

# Contents

1. Contents of E620 Box.
2. E620 assembly instructions.
3. Tank filling and water treatment.
4. Long term water treatment and basic operation.
5. The E620 Ergometer with USB Function
6. Maintenance/Troubleshooting.
7. Tank belt drive/Chain adjustment.
8. Parts list and Warranty.

# Training with E620

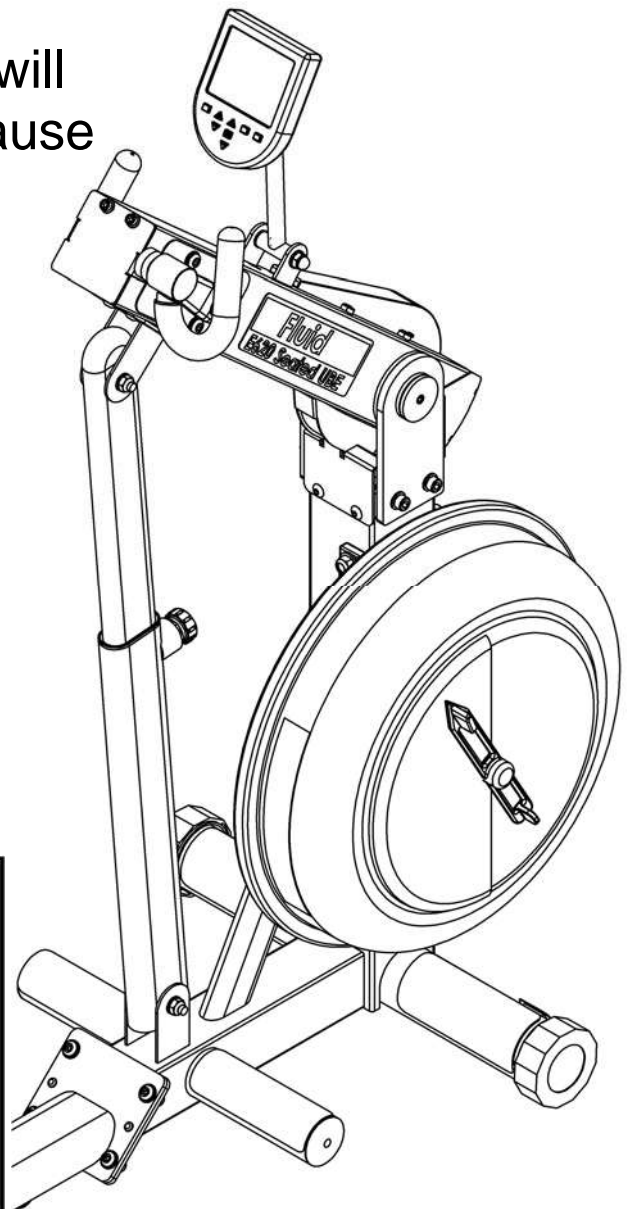
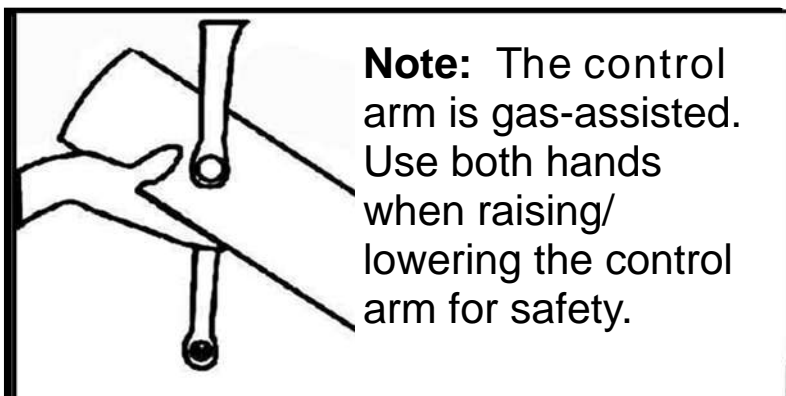
1. As with any piece of fitness equipment, consult a physician before beginning your E620 exercise program.

## CAUTION:

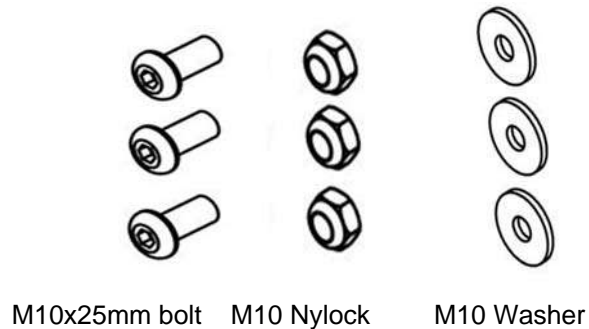
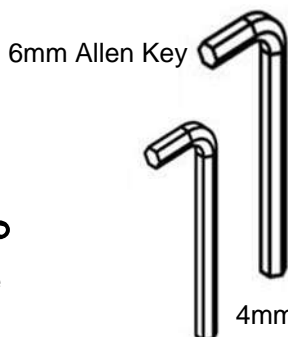
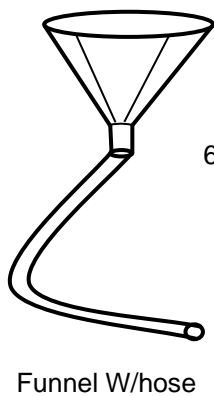
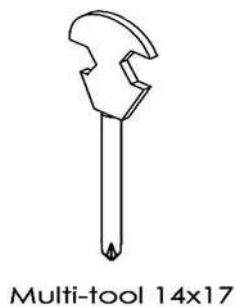
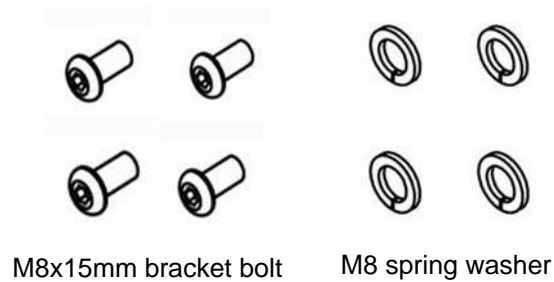
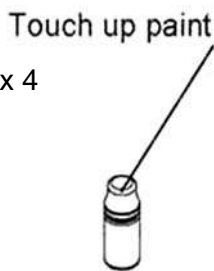
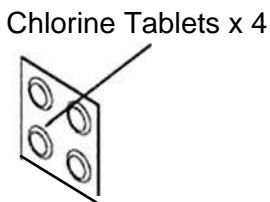
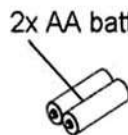
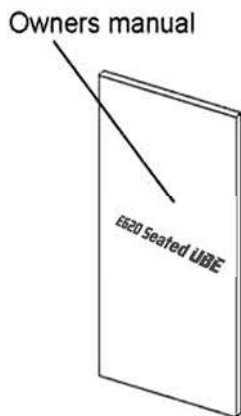
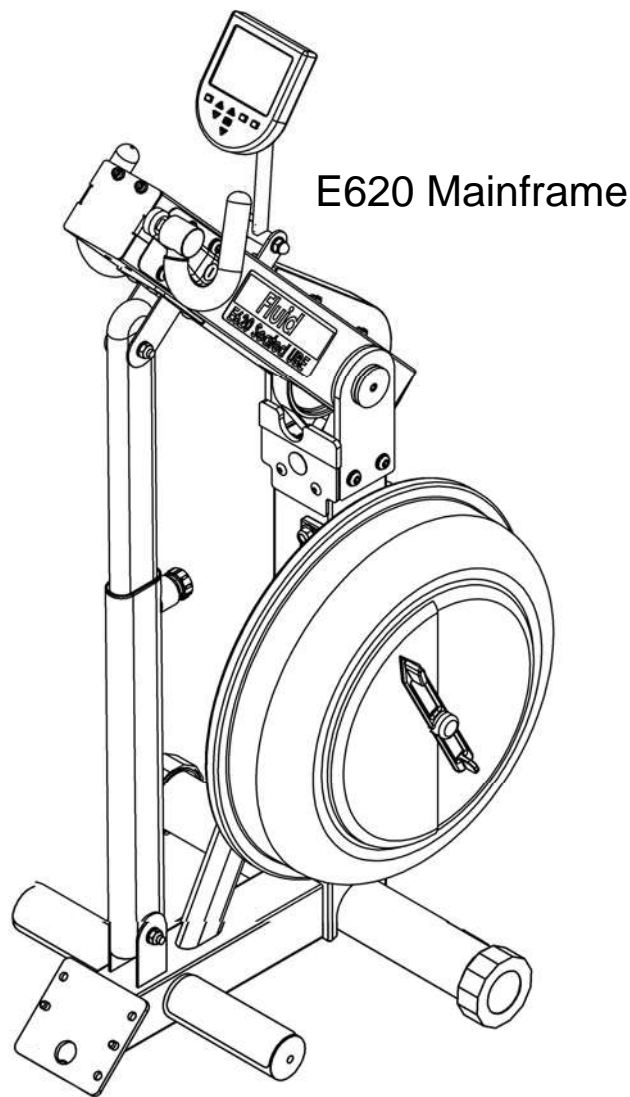
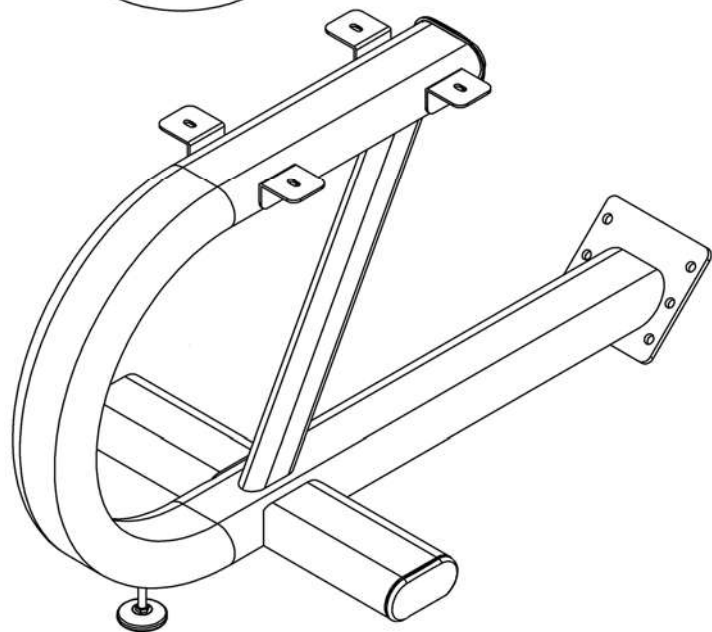
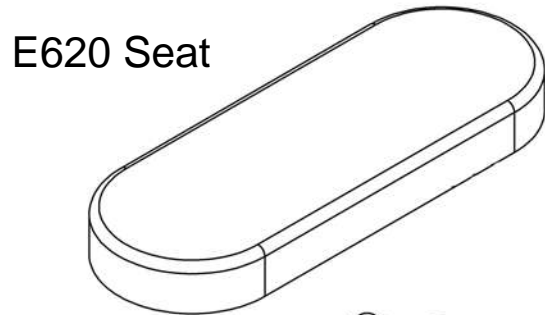
2. Use two hands and follow all safety instructions when raising lowering the E620 control arm.
3. Do not remove hands while crank is in motion. The crank will continue to rotate and could cause injury.

## Warning:

4. Keep fingers clear of pivot points during both assembly and use.

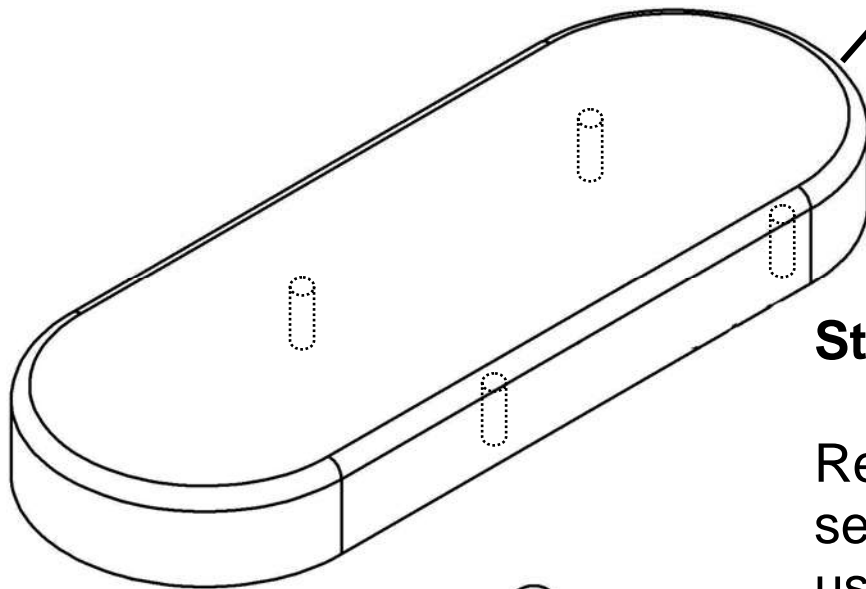


Box Contents:



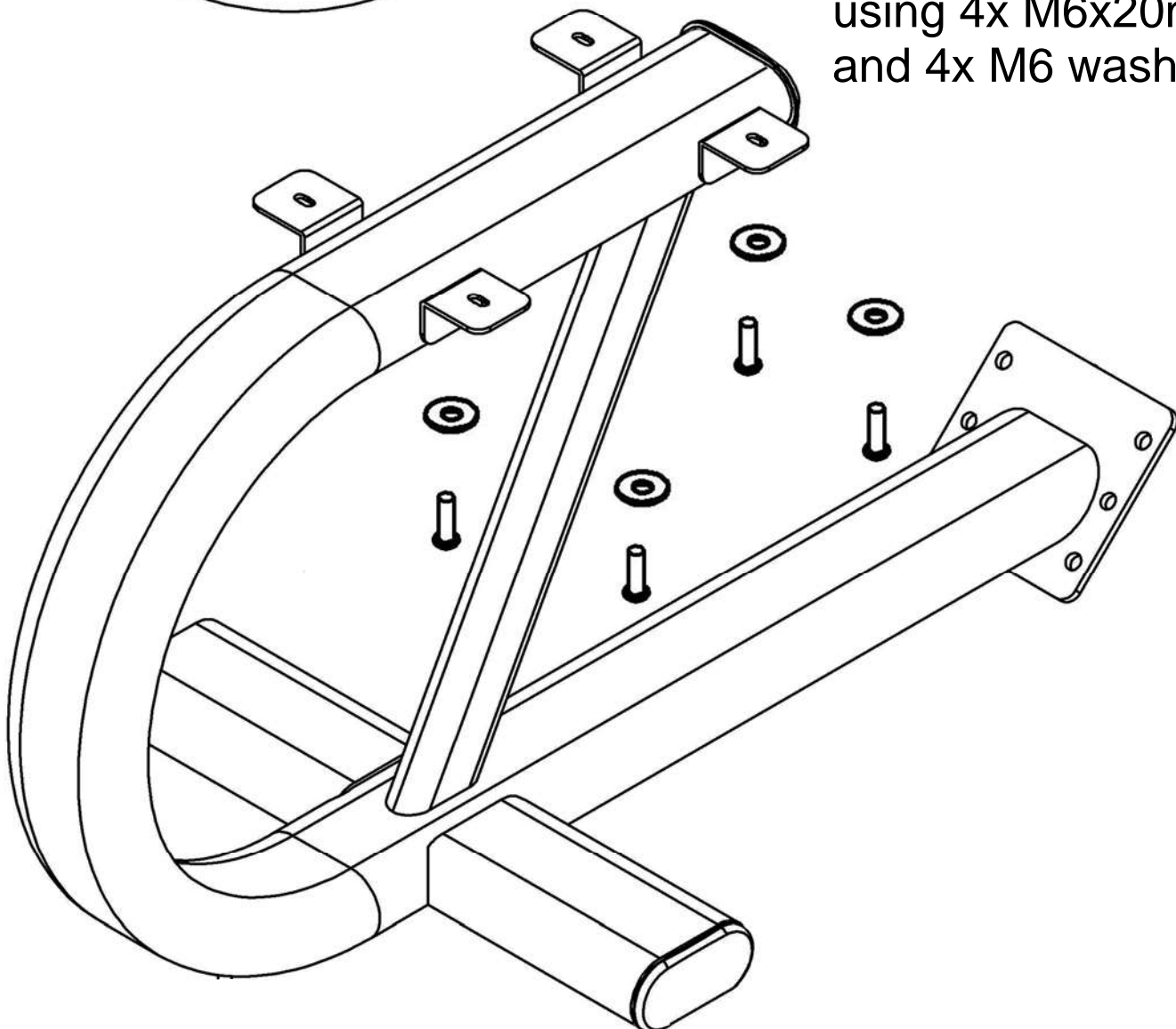
# Assembling the E620

Chrome snap faces  
forward



## Step 1:

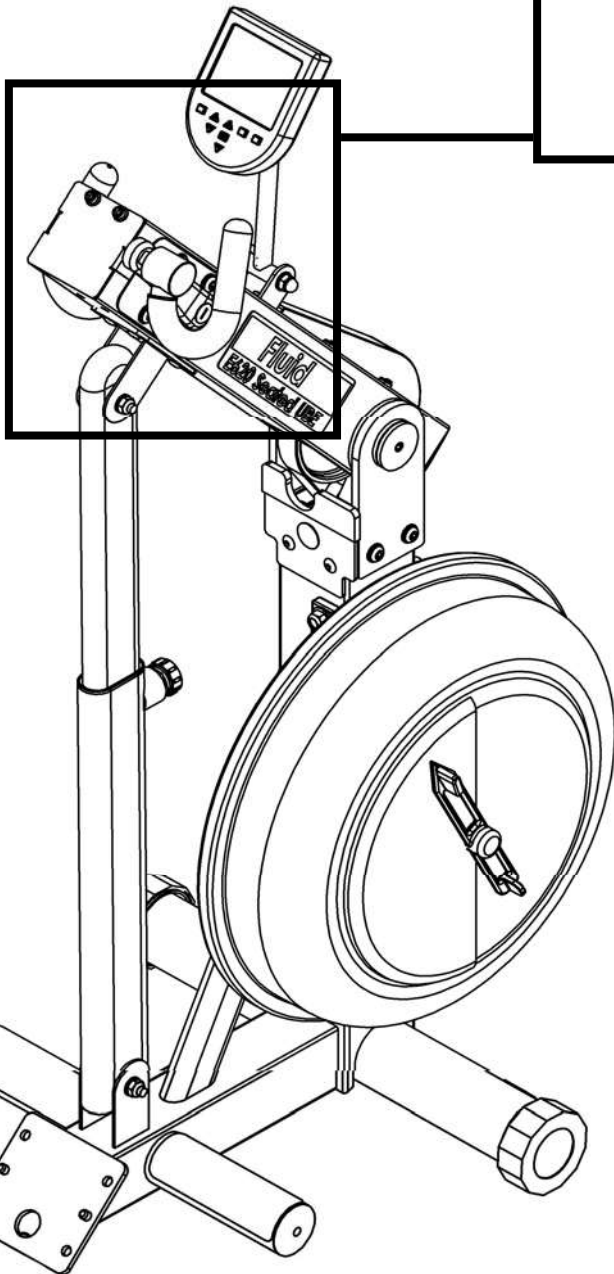
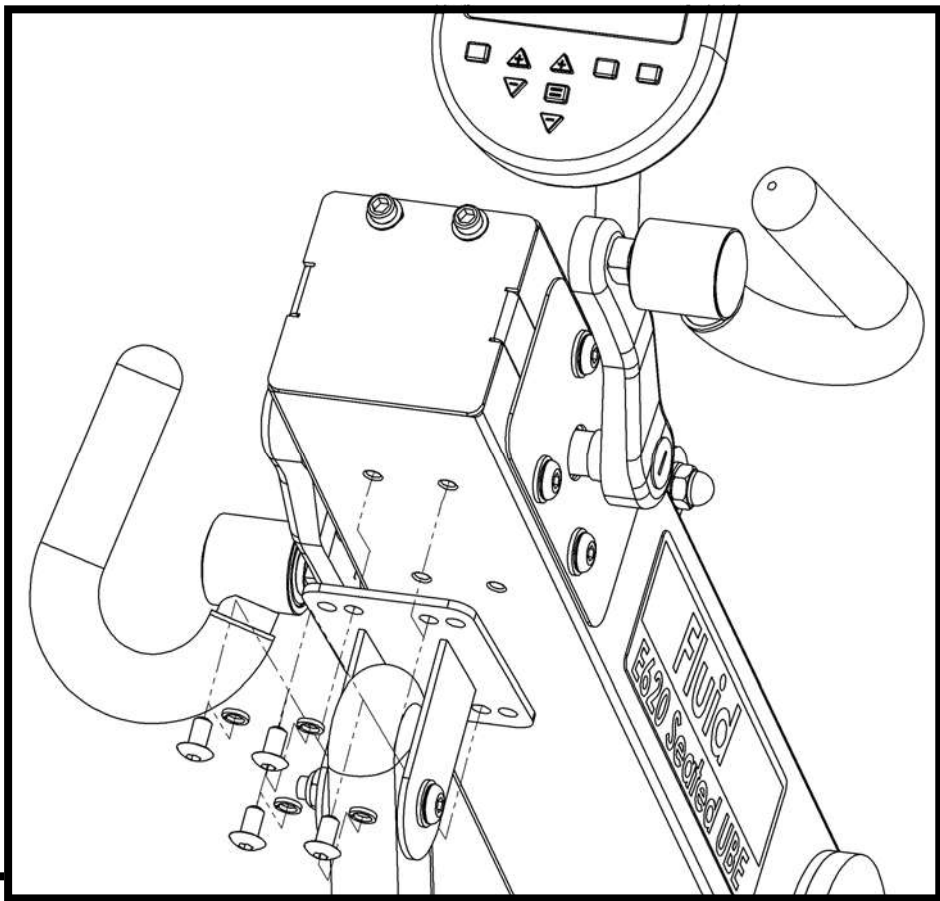
Remove Seat frame and seat from box. Attach seat using 4x M6x20mm bolts and 4x M6 washers.



# E620 Assembly

## Step 2:

Attach telescoping tube to control arm using 4x M8x15mm bolts and 4x M8 spring washers.



CAUTION:



The control arm is heavy and may swing freely during this stage of assembly. The yellow tension knob is pre-tightened from the factory in the optimal position for assembly in relation to the control arm. Do not loosen the yellow tension knob until the telescoping tube has been safely secured to the underside of the control arm as pictured left.



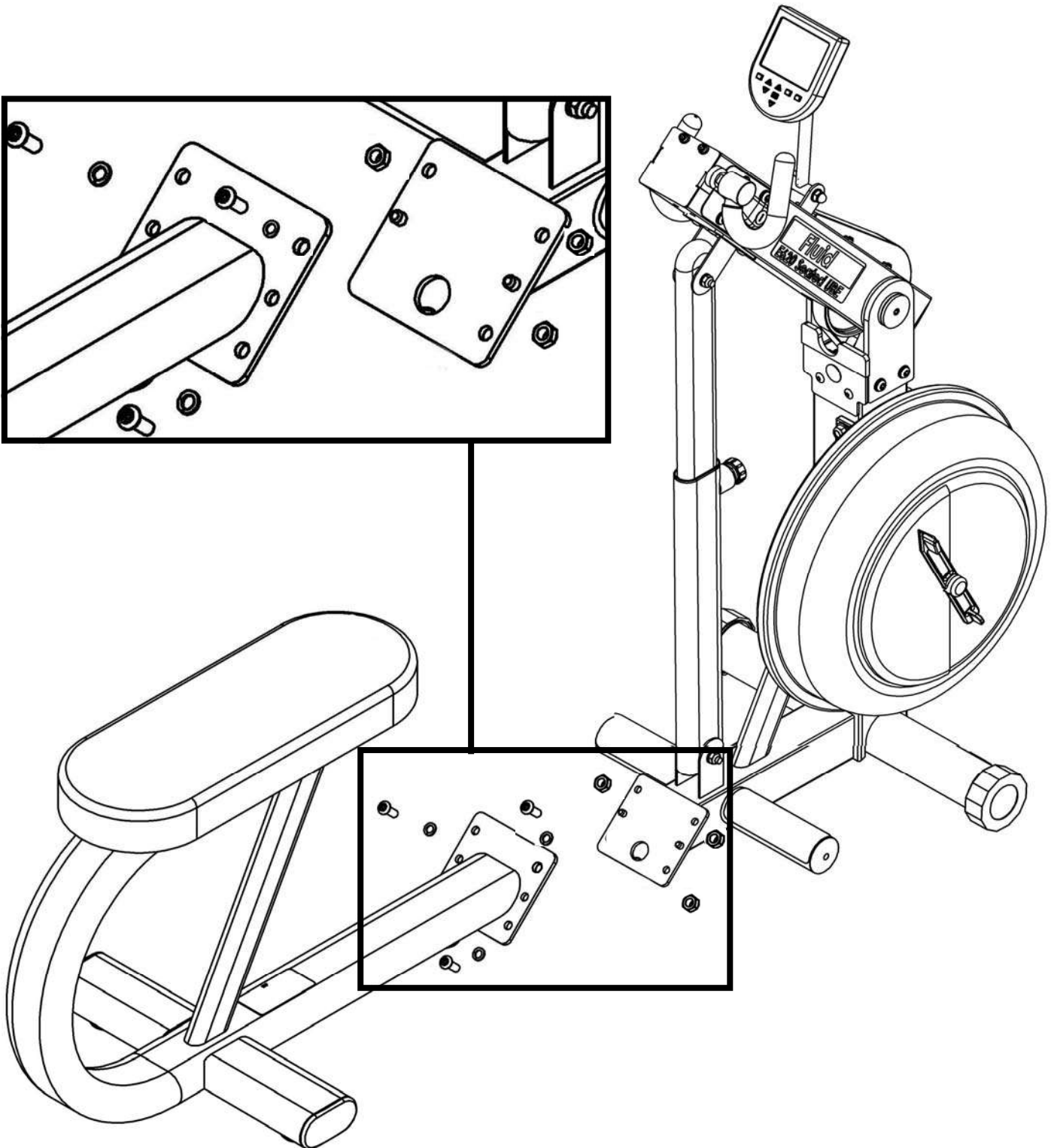
**WARNING:**

Keep fingers clear of pivot points at all times.

# E620 Assembly

## Step 3:

Attach the seat frame to the mainframe using 2x M10x25mm bolts, 2x M10 washers and 2x M10 nylock nuts. Tighten securely



# Tank filling and water treatment

Note: A bucket is required for filling (Not included)

In areas where tap water quality is known to be poor, FDF recommends the use of distilled water.

Open the yellow fill plug on back of tank and insert hose (rotating the impeller slightly may be necessary to allow the hose to pass). Move the tank adjuster handle to level 20 and begin filling. Do not fill the tank higher than the level indicator on the front of the clear shell. A properly filled tank holds approximately 8 liters of water.

## Water Treatment Procedures:

1. *Add Chlorine Tablet.*
2. ***Enough Chlorine Tablets are supplied for many years of Water treatment. Add a chlorine Tablet whenever the Water appears dirty or cloudy.***

***WARNING: Only use First Degree Fitness Supplied Water treatment tablets.***



### Caution:

Use a drop cloth under the tank when filling the tank to avoid damage floor or carpet



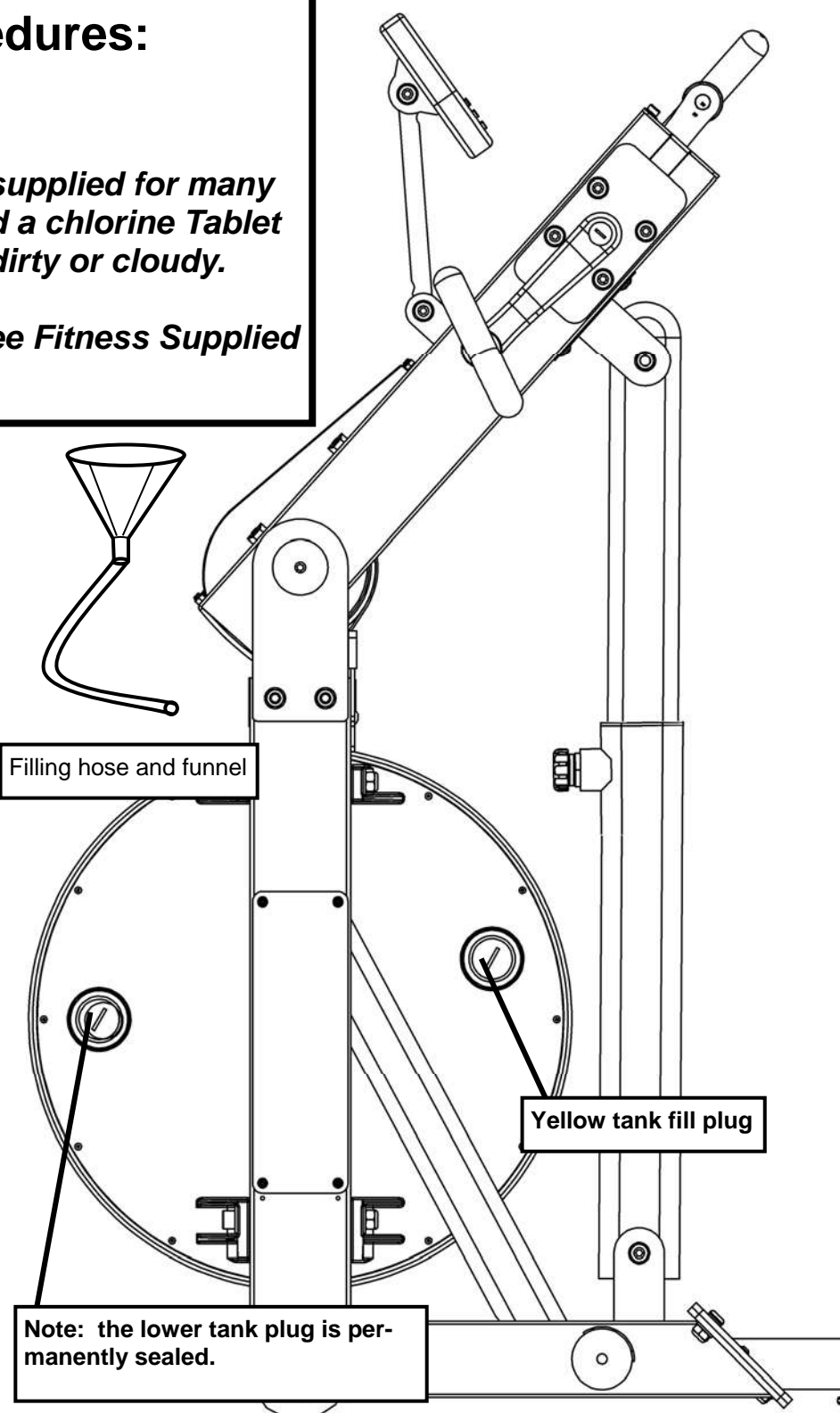
### Warning:



Impeller blades are sharp! Do not put fingers into the tank. Use the end of the hose to move the impeller should the need arise.

### Draining the Fluid tank:

When outdoors simply open the yellow fill plug and lie the E620 on its side to facilitate drainage. Indoors a container capable of holding 8 liters of water will be required





# Long Term Water Treatment and Basic Operation

**Important:** 

Do not fill past the calibration mark as indicated on the tank level stick-  
er or water spillage may 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.

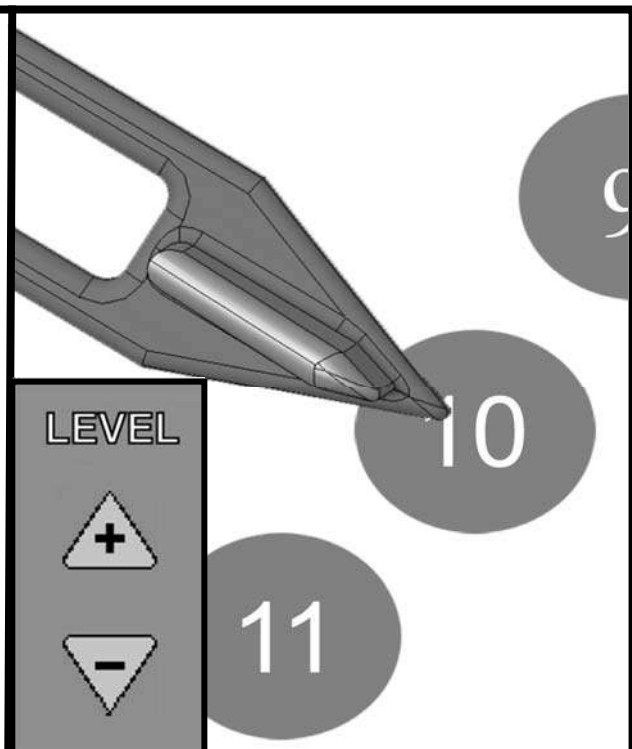
Water treatment schedules for the E620 will vary according to the fluid tanks exposure to sunlight, but expect 12+ months near a bright, sunlit window and 2 years or more for a darker location. At the point of finding the water slightly cloudy, add a chlorine tablet.

### Resistance:

The level of resistance is determined by the level indicator located on the front of the tank. Level one indicates lightest resistance, level twenty represents heaviest resistance.

Use the level +/- buttons on the E620 computer to match the resistance setting on the fluid tank.

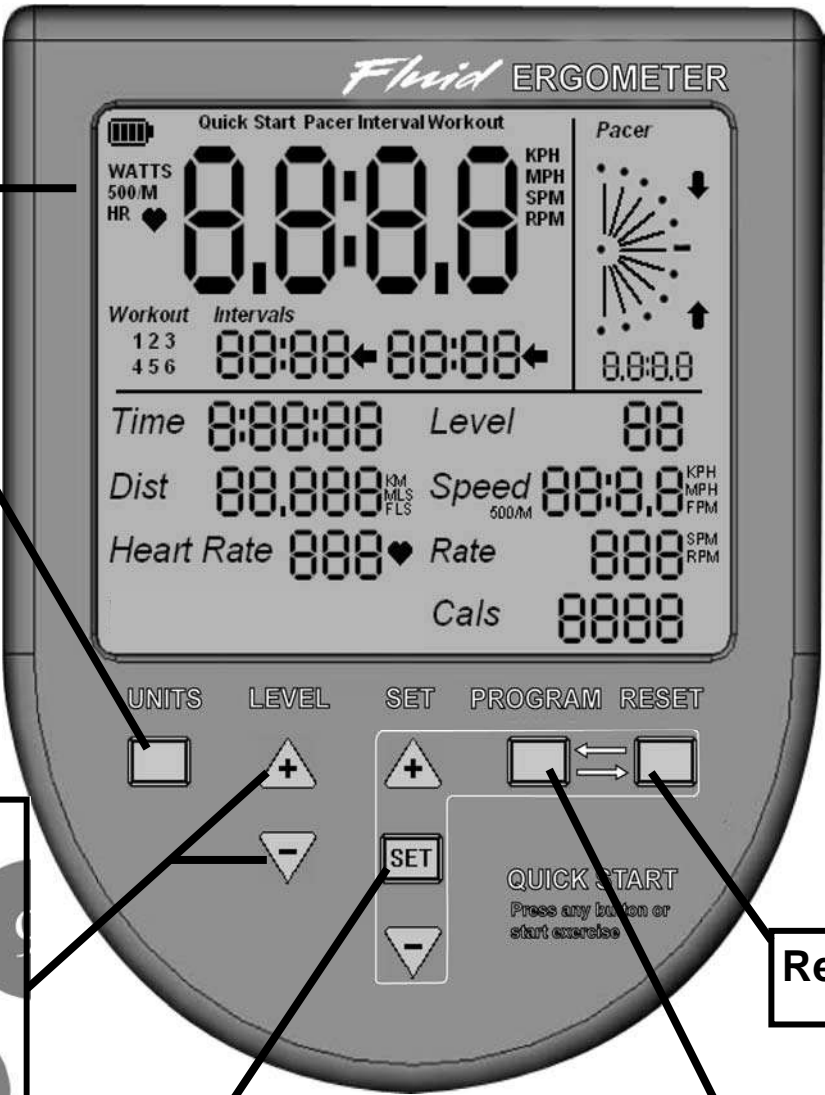
Allow three to four seconds after adjusting resistance handle for the correct resistance level to be achieved.



**Caution:** It is recommended that a drop cloth be used under the fluid tank at any time during which the tank fill plug is open.

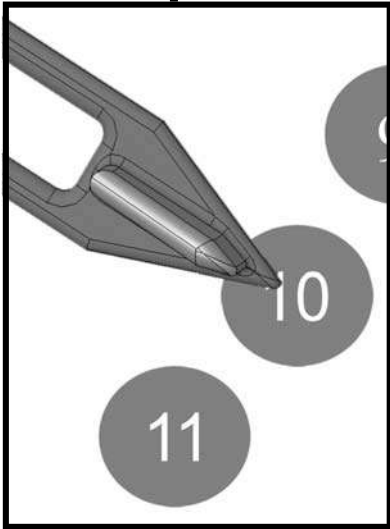
# E-620 Ergometer.

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



**UNITS** displays RPM, HR, MPH, KPH

**Level** Adjustable from 1-20



**Set** Changes Time, Distance parameters

**Reset** Clears data

**Program** Clears current exercise program

**Note:** For complete operational instructions, please refer to the computer manual, which is included with your E620

# 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](http://www.firstdegreefitness.com)). Download and Install NetAthlon 2 XF for Rowers from <http://www.webracing.org/downloads.htm>

## Connecting your

- 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](http://www.firstdegreefitness.com)

# Maintenance Chart.

Item	Timeframe	Instructions
Seat and Frame.	Monthly	Wipe weekly with lint free cloth or more often with heavy club use.
PK belt tension.	Monthly.	Check monthly for signs of slippage. Adjust/tighten as required. See the tensioning belt section of this manual.
Tank and water treatment.	12 months to 2 years.	Follow instructions as specified in the "Water Treatment" section of this manual.
Chain drive.	Check every 100 hours for correct tension.	Remove the Control arm front end cap and check tension using a screwdriver or other tool. Tighten as required using chain tensioning bolts located at the end of the control arm. <b><u>Do not under any circumstances use fingers to check chain tension!</u></b> See tightening/adjusting chain section of this manual.
E620 pedals.	Tighten weekly using 15mm box wrench (supplied)	The pedals should be checked on a regular basis. A loose pedal can cause damage to the crank arm aluminum threads, requiring replacement.

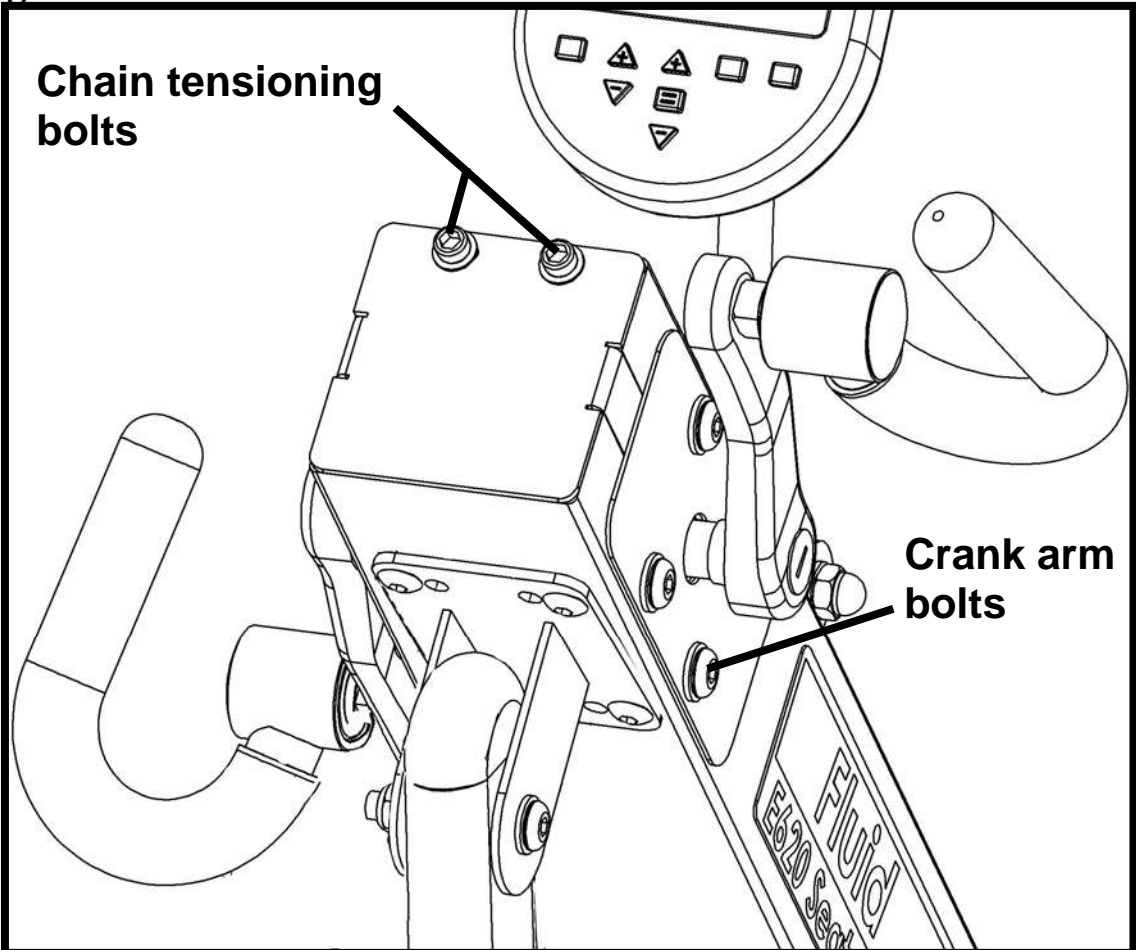
## Troubleshooting Guide:

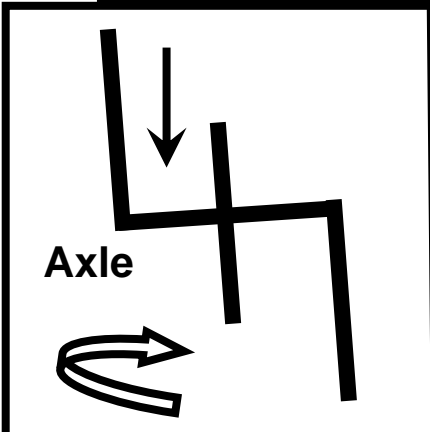
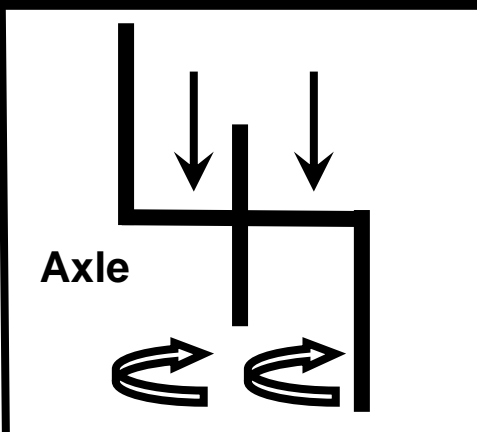
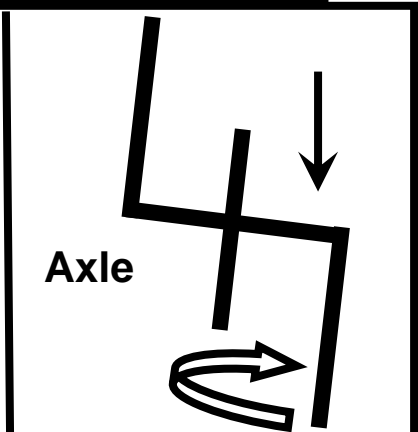
Fault	Probable Cause	Solution
Water changes color or becomes cloudy.	Rower is in direct sunlight or has not had water treatment.	Change rower location to reduce direct exposure to sunlight. Add water treatment or change tank water as directed in the water treatment section of this manual.
Knocking noise from inside the control arm while training, especially when changing directions.	Chain requires tightening or adjustment.	Open front end cap and check chain tension using a screwdriver or other implement. Do not use fingers. Proper tension is 3-5mm of play. Please refer to the Chain adjustment page for further instructions.
Pedals slip during hard training.	PK tank belt requires tightening.	Remove large inspection plate on opposite side of tank and check belt tension. For details on belt tightening, please refer to the belt tightening page in this manual.
Pedal is loose (either left or right) and cannot be retightened.	Aluminum crank arm threads are stripped.	Contact service center for replacement. Then check weekly as recommended.
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 E620 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 E620 computer display is erratic/slow while displaying RPM and WATTS	Gap between sensor and magnetic ring is too wide.	Remove inspection plate, check sensor gap and that magnetic ring is not wobbly or loose. The sensor bracket can be bent slightly to bring the reed switch closer to the magnetic ring.

# Adjusting the E620 Chain

To adjust chain tension/alignment, first loosen slightly the 8 crank arm bolts located on the sides of the crank arm axle covers. It is not necessary to remove them. Once crank arm bolts are loosened, tighten the chain tensioning bolts in equal, small increments “max 1/4 turn” until the correct tension is achieved. Retighten bolts.

If the chain requires alignment, use the chain tensioning bolts individually to correct alignment as shown below.



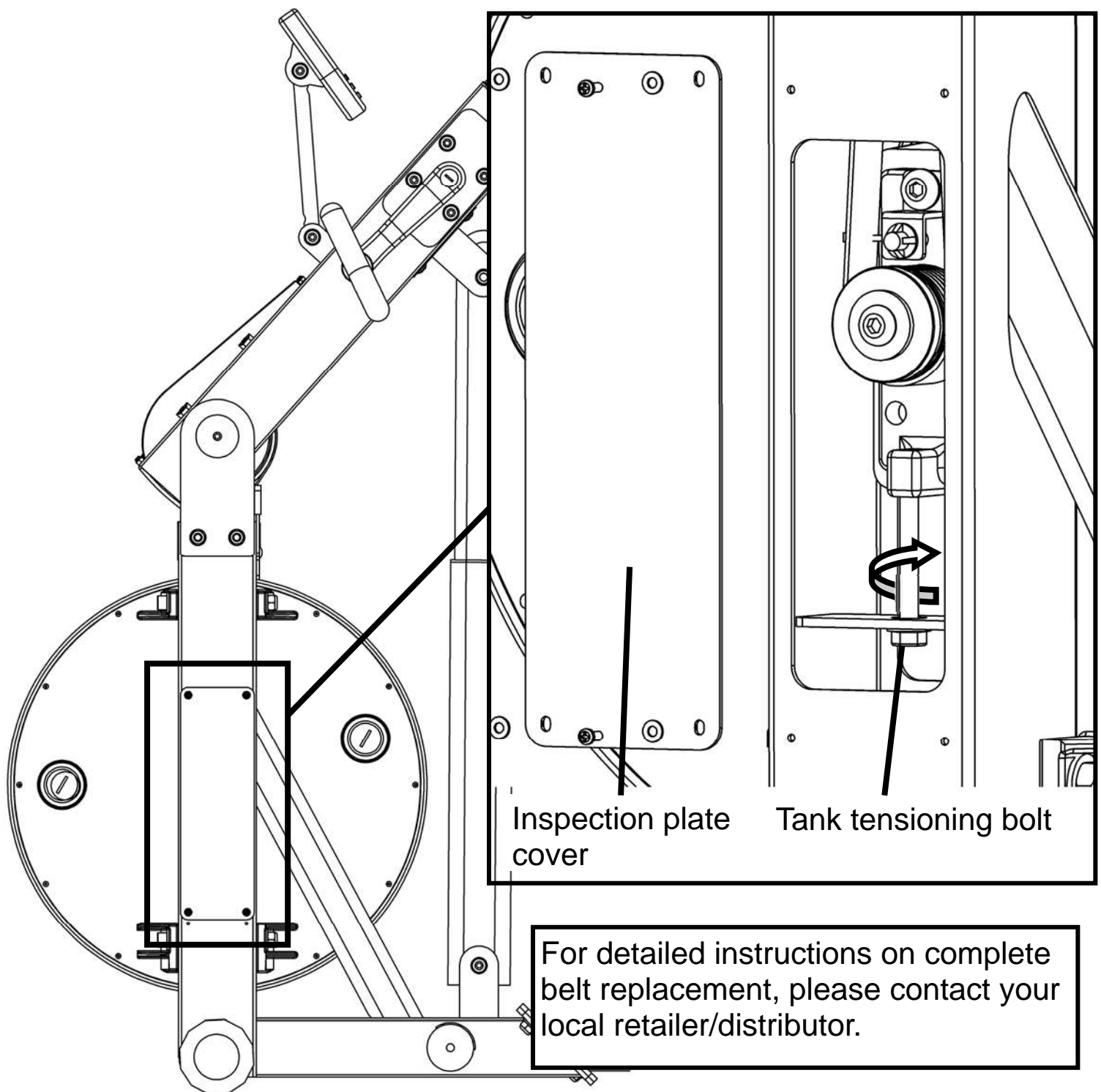
		
Tightening left chain tensioning bolt only	Tightening left/right chain tensioning bolts equally	Tightening right chain tensioning bolt only

# Adjusting the E620 Drive belt

The PK drive belt should rarely require tensioning, but should slippage be encountered, first remove the inspection plate cover. This will expose the tank tensioning bolt which is tightened with a 13mm wrench. Turn clockwise and test until slippage ceases.

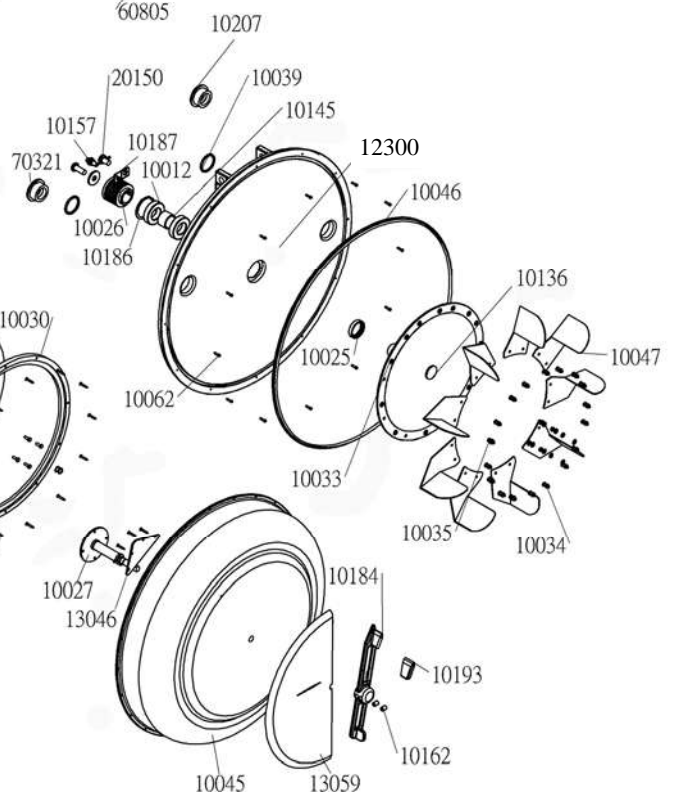
Note: If the belt is extremely loose, the tank bolts will have to be loosened slightly before adjusting to allow maximum adjustment. This will require a 10mm Allen key and 19mm wrench (not supplied).

Do not over-tighten the tank bolts once adjustment is complete.



## Telescoping tube/gas assisted shock assembly

## Upper control arm/Computer stalk mount assembly





# Parts List

P/N	Qty	Description	P/N	Qty	Description
10012	2	Bearing NSK6005ZZ	12042	1	Axle / Sprocket for E620
10025	1	Seal NBR 37x30x8t for Flywheel Shaft	12043	1	Bushing
10026	1	Small PK Transmission Pulley 50mm	12044	1	Bushing - Short
10027	1	Adjuster Handle Shaft	12045	2	Spacer PVC
10028	1	Stainless 0.8mm Backing Plate	12047	1	Handle
10030	1	Blue Adjuster PP Tank Ring 358x10	12048	1	Handle Cover
10033	26	Washer 10x4.2x1 Stainless	12049	1	Main Pulley Shaft
10034	22	Nut M4 Stainless	12050	2	Non Slip D60
10035	22	Bolt M4 Stainless	12052	2	Warranty Decal
10036	6	Screw M3x20 SS for Blue Tank Ring	12053	1	Model Decal - E620
10039	2	O Ring 32 x 3.5 CR	12054	1	Warranty Decal - Hand
10040	2	Bolt M12x140 for Tank Assembly	12058	1	End Cap 100x100 for E620
10041	8	Nut M10 Nylock	12059	1	Seat Frame
10042	2	Nut M12 Nylock	12060	1	Bolt M8x60
10043	4	Washer M12	12064	2	Bolt M10x145
10044	1	Tank Black Outer Cover Ring	12144	1	End Cap- D25
10045	1	PC Tank	13046	1	PVC triangle cover inside the tank cover
10046	1	Tank Large Seal	13059	1	Tank Level Decal 20R
10047	9	Impeller Blade	20020	8	Bolt M10x35
10062	12	Bolt M3x12	20052	2	Side Bearing Cover E720/820
10067	1	Rubber Cover for Large PK Pulley	20132	2	French Screw M8x20xP1.0
10070	10	Screw M4x10	20133	2	Crank End Cap
10081	3	Washer M6	20134	1	Crank-Left
10082	24	Washer M10	20135	1	Crank-Right
10096	2	Bolt M10x70 for Aluminum Rail	20138	2	Bearing NSK6201ZZ
10097	2	Nut Dome Head M10	20139	1	Handle Shaft-Left
10112	1	Stainless Steel Computer Mounting Arm	20140	1	End Cap 38
10114	8	Plastic Bushing 20x16x13x10	20149	1	Handle Shaft-Right
10116	2	Bolt M10x60	20150	1	Bolt M10x15
10117	1	Computer Wiring 1200mm	20170	2	Chain Protection Decal
10136	1	Flywheel & Shaft	20183	1	Adjuster Cover
10145	1	Bearing Spacer 30x25.1x20.5mm	20184	2	Square Adjuster Nut
10157	1	Sensor Round	20185	2	Bolt M6x100
10162	2	Grub Screw M8x10	20190	2	Aluminum Block Bearing Housing
10170	4	Washer M4	20193	2	NSK 6004ZZ Aluminum Block Housing Bearing
10171	1	Bolt M6x8	20196	2	Wave Washer 20mm
10184	1	Adjuster Handle & PU Cover P/N 10193	23144	1	Knob - Yellow
10186	1	C Clip RTW-48	23945	8	Bolt M8x15
10187	1	Sensor Bracket	30012	1	DID-25 Chain 178
10193	1	PU yellow adjuster handle cover	33928	1	Internal Tube End Cap
10207	1	Tank Plug Yellow	33931	1	Telescoping Tube Plastic Sleeve
12300	1	SMC Tank Back—Gray	33933	1	Hydraulic Shock
12001	1	Lower Mian Frame	33935	1	Telescoping Tube (Internal Scribed)
12002	2	Bearing Bracket	33937	1	Flange Nut M25
12013	2	end Cap - Round D60	33938	1	Copper Locating Bushing
12015	2	Main Shaft - D20	33941	1	Telescoping Tube External
12016	1	Idle Wheel	50903	1	1.8Meter Wireless HC IPM
12017	4	C Clip 20mm	60211	2	Transport Wheel 76.2
12018	3	Needle Bearing #2016	60708	1	Washer M8.5x19x1.6t
12021	1	Control Arm Positioning Bracket	60710	4	Washer M6x16 same as 60146
12022	2	Control Arm Spacer	60711	4	Bolt M6x20 same as 10080
12026	1	Seat - E620	60805	2	Rear Leg Adjustable Height End Caps
12029	3	End Cap Rear Leg	70321	1	Tank Plug Black
12031	1	Positive stop bracket	71025	6	Main Shaft Rear Bracket Bolt M10x25mm
12034	1	PK Belt 1265	71036	1	Nut M8 (Note: For tank tensioning bolt)
12035	1	PK Pulley	73016	3	Foot Leveler M8x30 PVC
12039	1	Control Arm - E620		3	

# **FLUID UPPER BODY ERGO (UB-E620)**

## **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 **Fluid Upper Body Ergometer (models UB-E620)**, 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 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) – 1 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**

- Pedals & toe straps
- Hand grip assemblies
- Seat
- All rubber components
- Computer & speed sensor (excluding replaceable batteries)
- All drive belts & chains
- Crank arms
- All pulleys, rollers & bearings

### **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 commences at time of sale but no later than six (6) months from date of original shipment
- 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