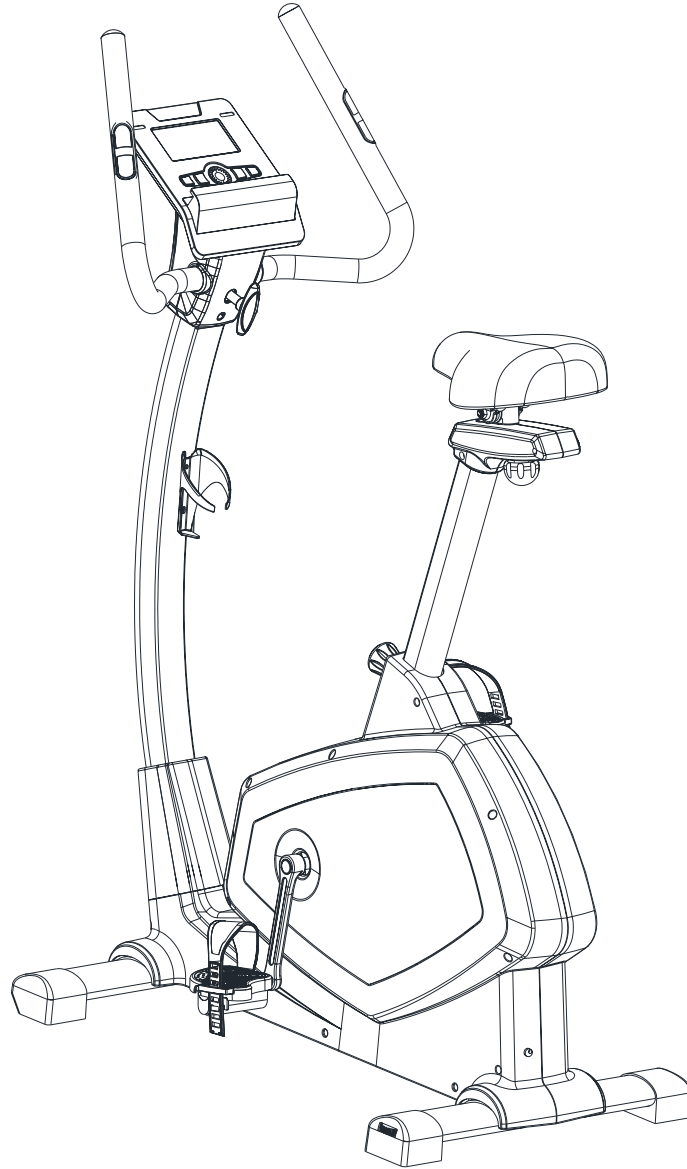




# ASSEMBLY MANUAL >



# DEFENDER 88

**Record serial number**

*Elite Defender 88 Exercycle*

Thank you for purchasing the **Elite Defender 88 Exercycle**.

For over 20 years, Elite Fitness™ has been New Zealand's largest supplier of fitness equipment. Our aim and vision is to provide you Elite™ branded products, tested to the highest standard for quality and biomechanics at the best possible price.

Please read through this manual to familiarise yourself with the operation of your new **Elite Defender 88 Exercycle**. Doing so will help to ensure that you get the most out of your machine, enjoying safe and effective workouts ahead.

Even though we go to great efforts to ensure the quality of each product we produce, occasional errors and or omissions do occur. In any event should you find this product to have either a defective or a missing part, please contact us for a replacement.

## **SERVICE & WARRANTY**

For service and warranty assistance please visit:

**[www.elitefitness.co.nz/service](http://www.elitefitness.co.nz/service)**

Online forms are available for Service, Warranty and Parts requests.

(09) 258 9067

### **Elite Fitness HQ**

11 George Bourke Drive  
Mt Wellington  
Auckland, New Zealand

[info@elitefitness.co.nz](mailto:info@elitefitness.co.nz)

0800 2 438 348

[www.elitefitness.co.nz](http://www.elitefitness.co.nz)

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# IMPORTANT SAFETY INSTRUCTIONS

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The following definition applied to the word “WARNING” when used in this manual:

 **WARNING** Used to call attention to POTENTIAL hazards that could result in personal injury.

## READ ALL INSTRUCTIONS BEFORE USING THE MACHINE

This product has been designed for **home use only**. Product liability and warranty conditions will not be applicable to products being subjected to professional use or products being used in a commercial environment. e.g Gym Centre, Retirement Centre, Home Based PT Studio and Physio.

This exercise machine is built for optimum safety. However, certain precautions apply whenever you operate a piece of exercise equipment. Be sure to read the entire manual before you assemble or operate your machine. In particular, note the following safety precautions.

- Read all instructions in this manual before using this equipment.
- Use the machine only for its intended use as described in this Manual.
- Inspect and tighten all the loose parts before this equipment is used.
- Keep hands away from moving parts.
- Keep children and pets away from the machine at all times. **DO NOT** leave children unattended in the same room with the machine.
- Before using the machine to exercise, always do stretching exercises to properly warm up.
- Inspect the machine before each use; make sure all of the connections are tightly secured.
- Only one person at a time should use the machine.
- If the user experiences dizziness, nausea, chest pain, or any other abnormal symptoms, **STOP** the workout at once. **CONSULT A PHYSICIAN IMMEDIATELY.**
- Position the machine on a clear, levelled surface. **DO NOT** use the machine near water or outdoors.
- Always wear appropriate workout clothing when exercising. **DO NOT** wear robes or other clothing that could become caught in the machine. Sporting shoes are recommended when using the machine.
- Do not place any sharp object around the machine.
- Disabled persons should not use the machine without a qualified person or physician in attendance.
- Never operate the machine if the machine is not functioning properly.
- Only carry out training work on the equipment when it is in perfect working order. Only use original spare parts in the event of a repair.
- Do not use strong solvents for cleaning, and only use the tools supplied, or suitable ones of your own, for any repairs that may be required. Please dispose of the packaging and any parts that have to be replaced subsequently (all parts for the unit) at suitable collecting points or containers with a view to saving the environment.
- **DO NOT** extend the seat stem past the warning line “Max” when adjusting the seat height.
- Not for therapeutic use.

**WARNING:** Before beginning any exercise programme, consult your physician. This is especially important for persons with pre-existing health problems. The seller assumes no responsibility for personal injury or property damage sustained by or through the use of this product.

**SERVICE HINTS:** The high quality standard of this product only will be kept if you, on a regular basis, check all screw connections and moving parts on proper fitting. Damaged parts need to be changed immediately. During the time of repair the product must not be used by anybody.

**IMPORTANT HINTS:**

- A) This product has been tested in accordance with the requirements of EN 957-1/A1, EN 957-5, standard, Class HA (HOME USE). The maximum load is limited to 120KGS.
- B) Parents should be aware of the risk factor of young children playing on fitness equipment unattended. Make sure that children are instructed properly in the use of the product and in the controlled execution of the different exercises. Misuse of the product could result in serious injury.

## **PRODUCT SPECIFICATIONS**

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User Weight Capacity:	120kg
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Dimensions:	1185 x 540 x 1390mm
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Shipping Weight:	42kg
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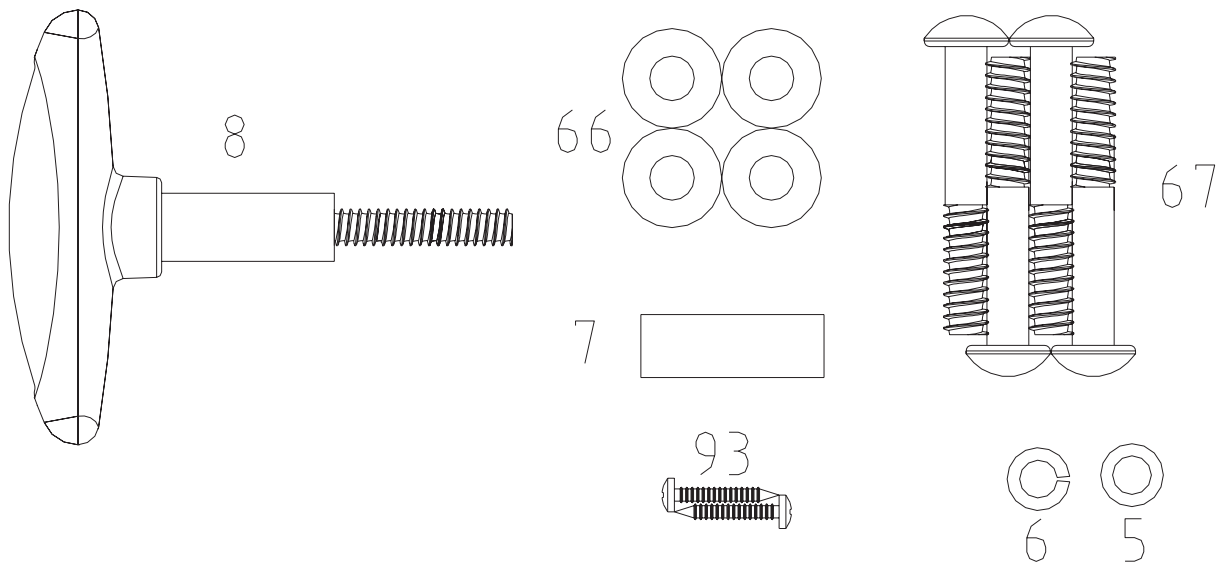
Net Weight:	38kg
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Power Requirements	6V 1.0A
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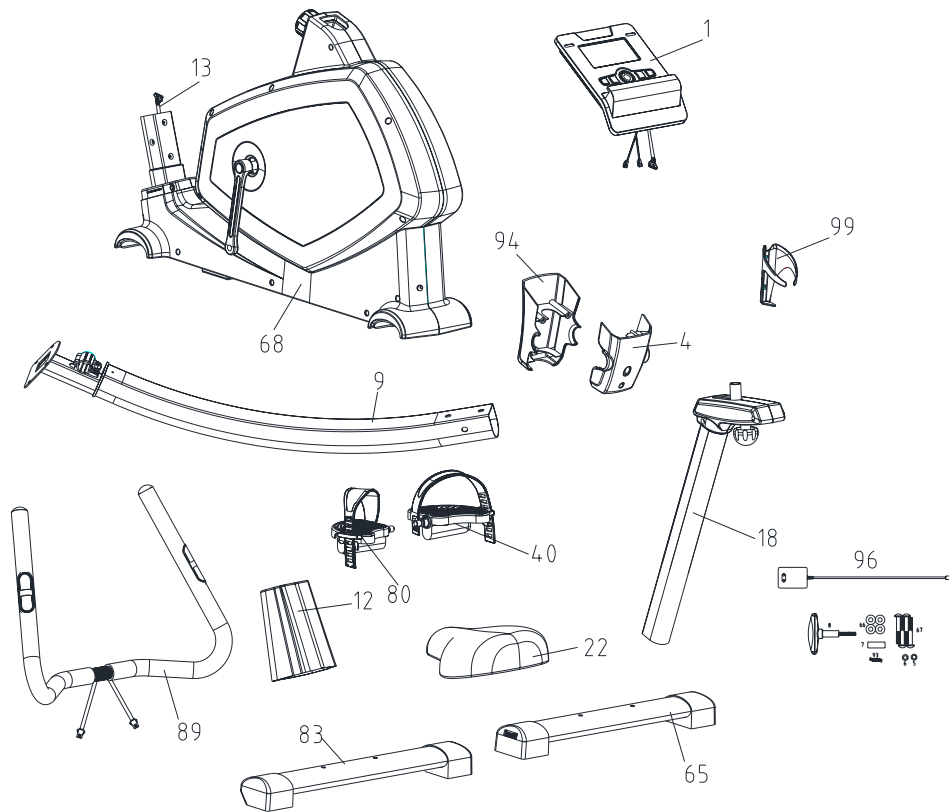
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# HARDWARE LIST



Part No.	Description	Q'ty
5	Flat washer $\Phi 8 \times \Phi 16 \times 2T$	1
6	Wave washer $\Phi 8.5 \times \Phi 13.5 \times 2.5T$	1
7	Sleeve $\phi 8 \times \phi 12 \times 30$	1
8	T-Shaped Knob	1
66	Semi-circle washer $\Phi 8.5 \times \Phi 19 \times 2T$	4
67	Screw M8*55	4
93	Screw ST2.9*20L	2

# ASSEMBLY COMPONENTS




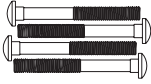
Part No.	Description	Q'ty	Part No.	Description	Q'ty
1	Computer	1	68	Frame	1
4	Plastic Cover	1	80	Pedal-L	1
9	Front Post	1	83	Front stabilizer	1
12	Front Cover	1	89	Handle rail	1
18	Seat post	1	94	Rear Handle Bar Cover	1
22	Seat	1	96	Adaptor	1
40	Pedal -R	1	99	Water bottle holder	1
65	Rear stabiliser	1			

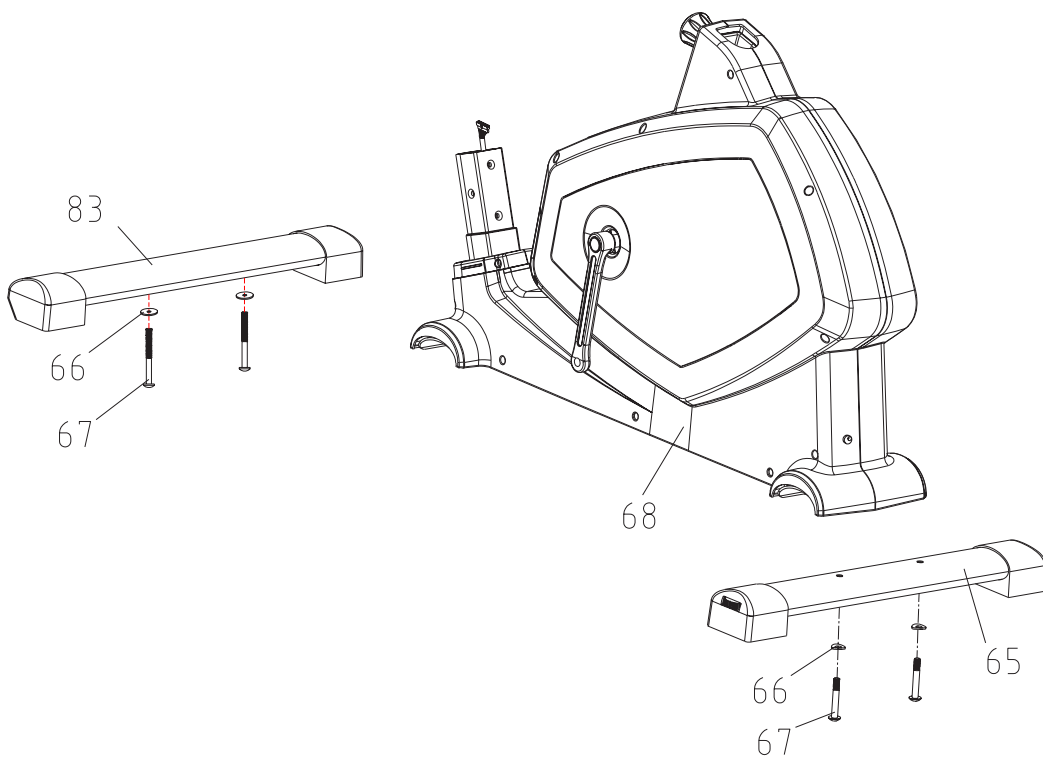
## Tools Required For Assembling the Machine:

— One Crossing Wrench and Allen Wrench, provided by manufacturer.

NOTE: It is strongly recommended that two or more people assemble this machine to avoid possible injury.

# ASSEMBLY INSTRUCTIONS

4 ×	 (66) ø8×ø19×2T 4PCS
4 ×	 (67) M8×56L 4PCS



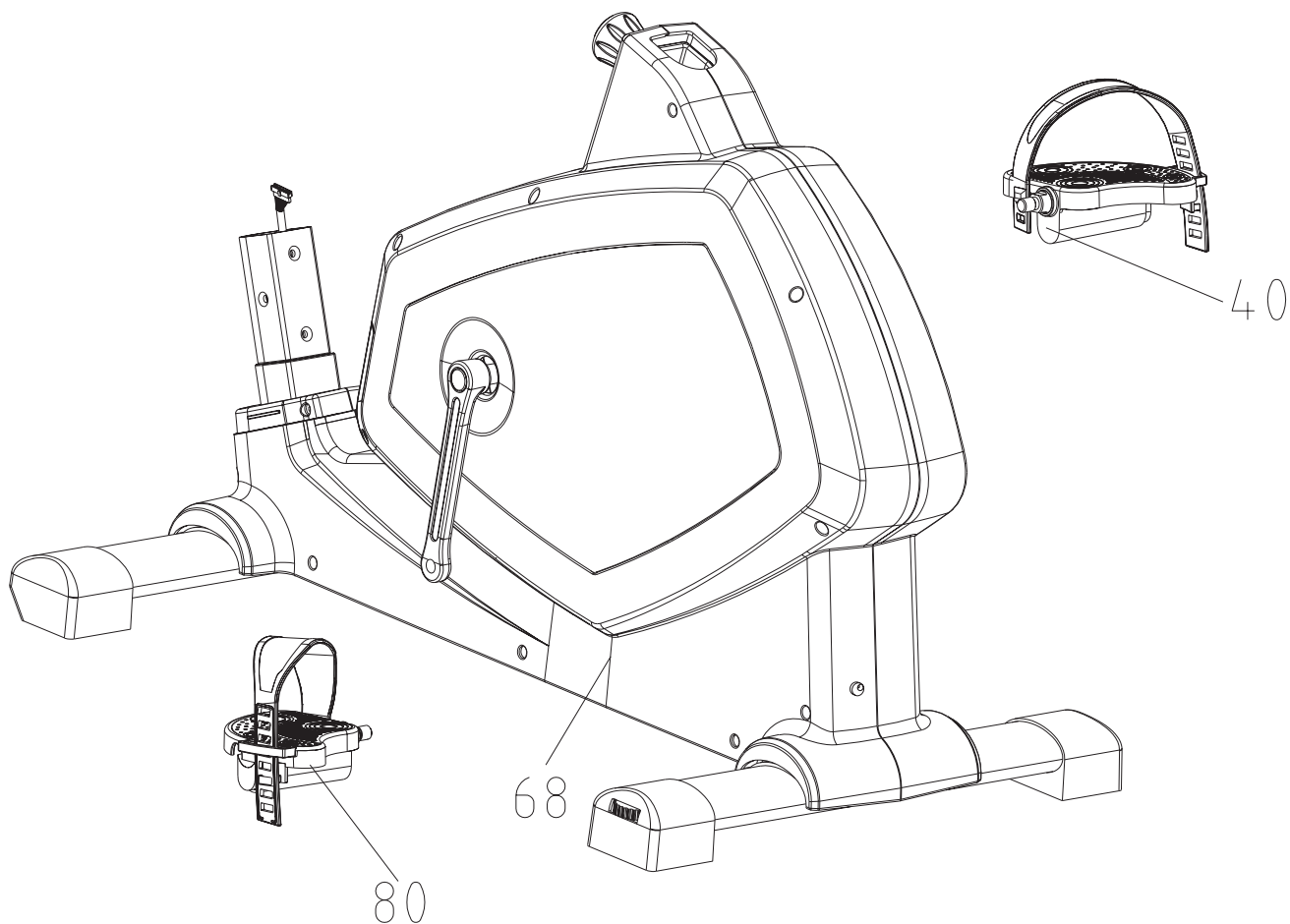
## STEP 1

**Do not tighten Bolts until instructed to do so.**

- Attach the Front Stabiliser (#83) to the Main Frame (#68). Secure it with 2 M8 Screws (#67) and 2 Semi-circle Washers (#66).
- Attach the Rear Stabiliser (#65) to the Main Frame (#68). Secure it with 2 M8 Screws (#67) and 2 Semi-circle Washers (#66).
- **Securely tighten all Bolts.**

# ASSEMBLY INSTRUCTIONS

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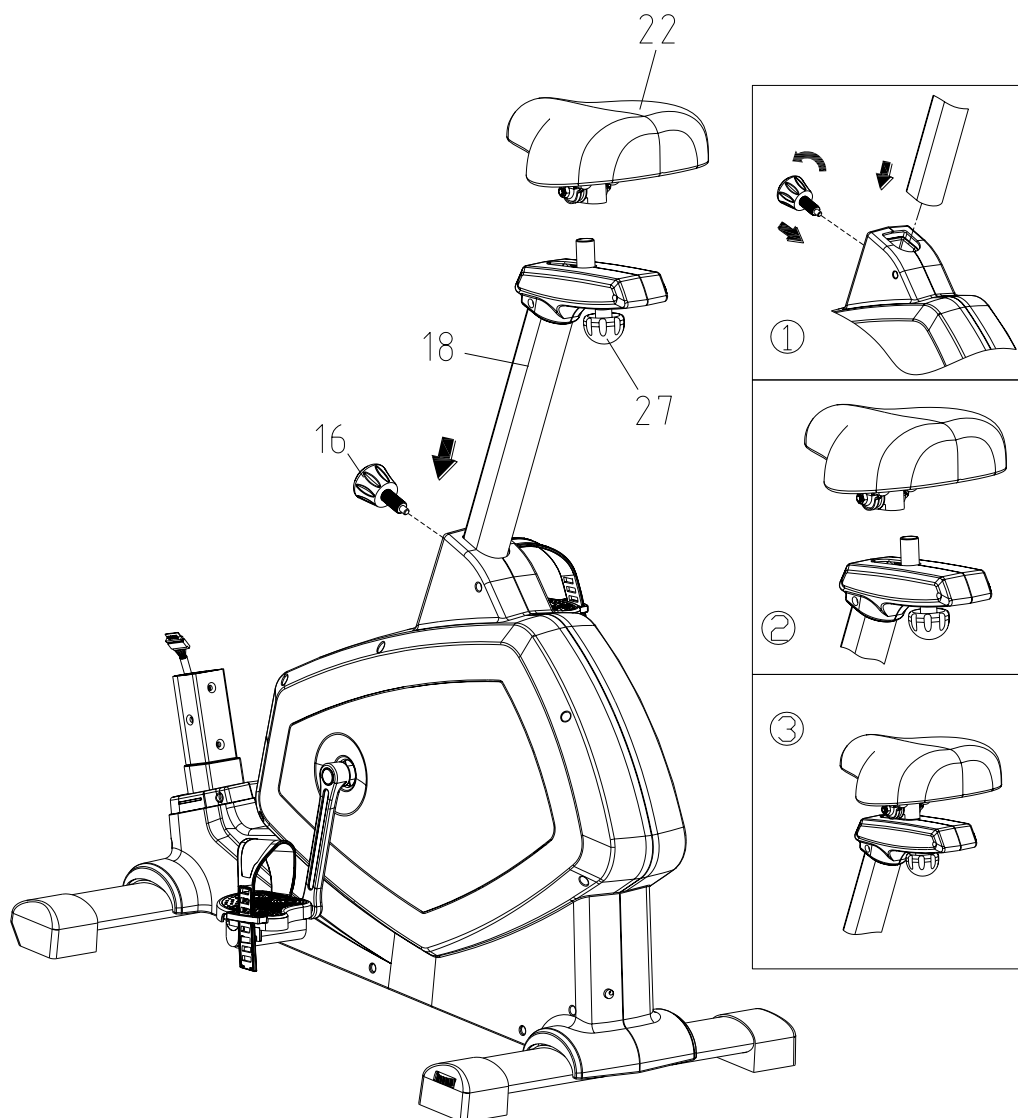


## STEP 2

- Thread the Left Pedal (#80) counterclockwise into the left Crank Arm (#79).
- Thread the Right Pedal (#40) clockwise into the right Crank Arm (#39).



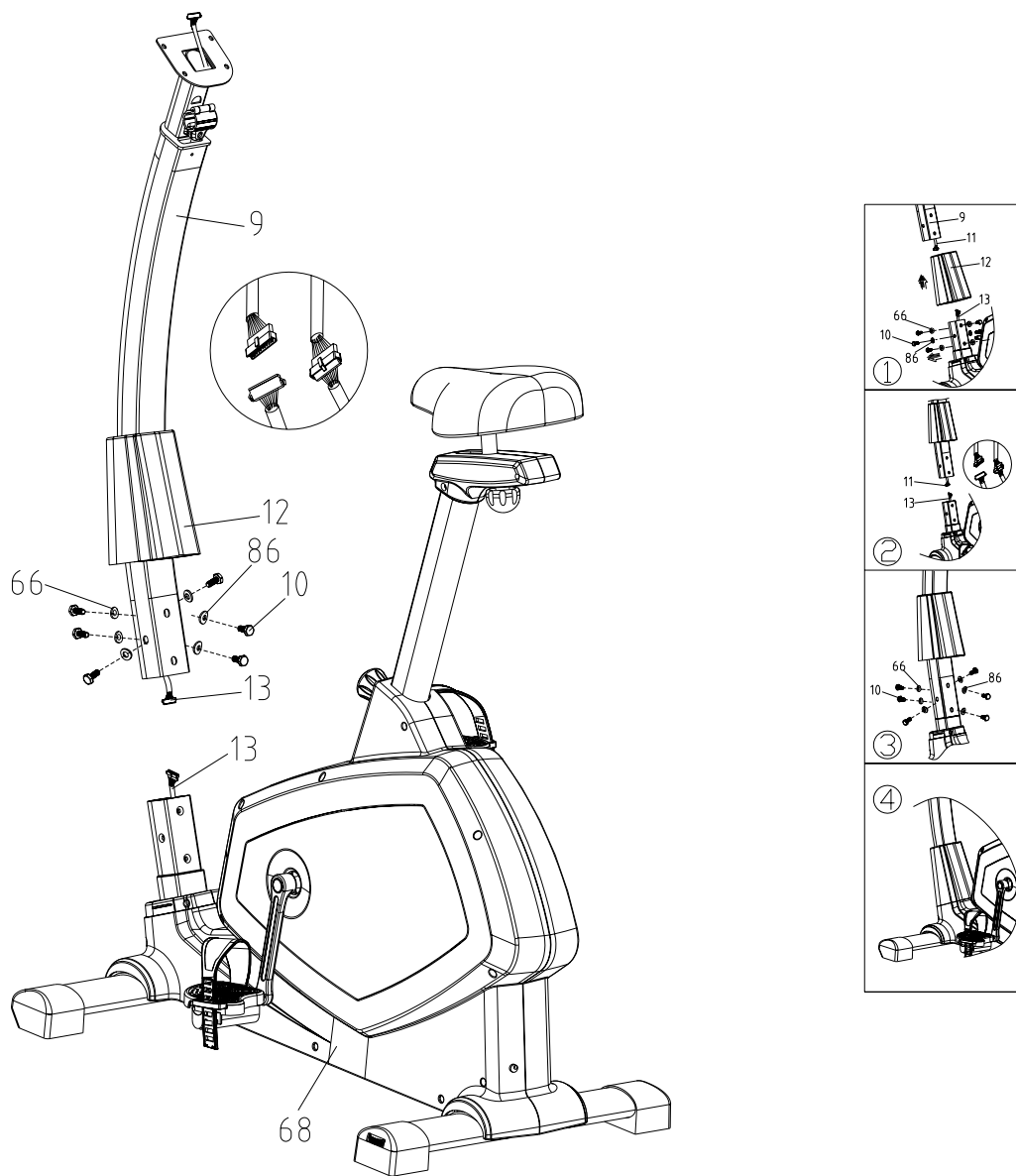
# ASSEMBLY INSTRUCTIONS



## STEP 3

- Insert the Seat Post (#18) into the Main Frame (#68) and secure with the Pull Pin (#16). The Pull Pin is used to adjust the height of the exercycle. Adjust to desired height. See Pic 1
- Place the Sliding Block (#21) and the Seat Slider Cover (#20) over the Seat Post (#18) and secure it in place using Locking Pin (#27).
- Attach the Seat (#22) to the Seat Post (#18). Adjust the tilt accordingly for individual comfort. Tighten the seat nuts securely

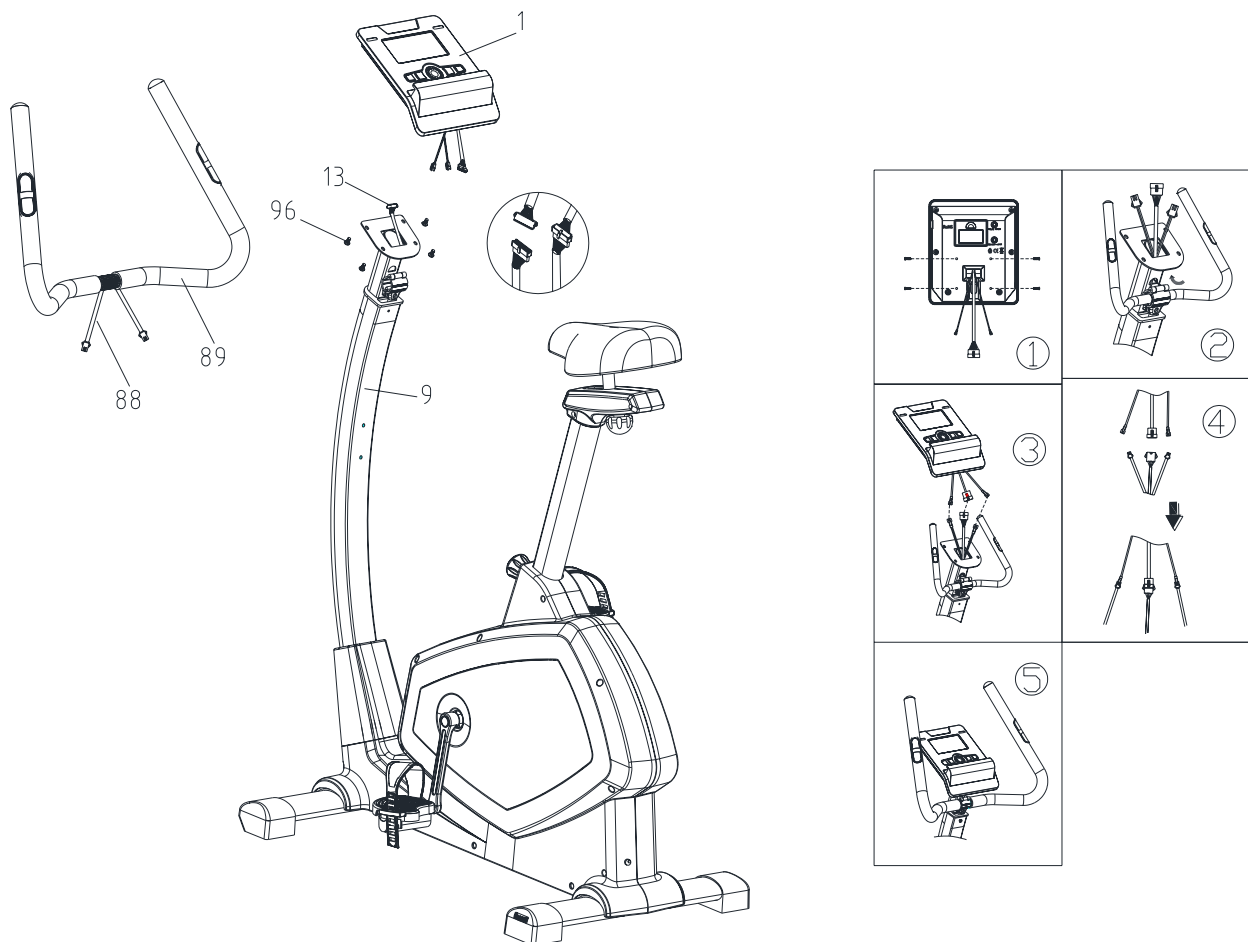
# ASSEMBLY INSTRUCTIONS



## STEP 4

- Connect the middle section Sensor Wire (#13) of the Front Post (#9) and Front Cover (#12) with the lower section Sensor Wire (#13) securely. Put the Front Post (#9) and front cover (#12) into the bottom post of main frame (#68) and fasten with 4 x M8 Screw (#10), 4 x Flat Washers (#86) and Semi-circle washers (#66).





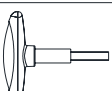
# ASSEMBLY INSTRUCTIONS

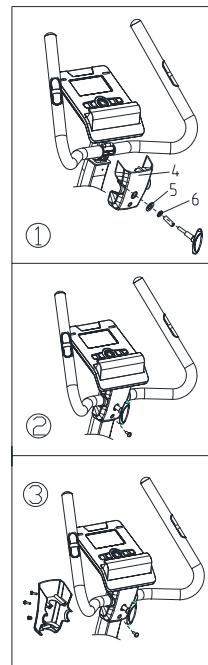
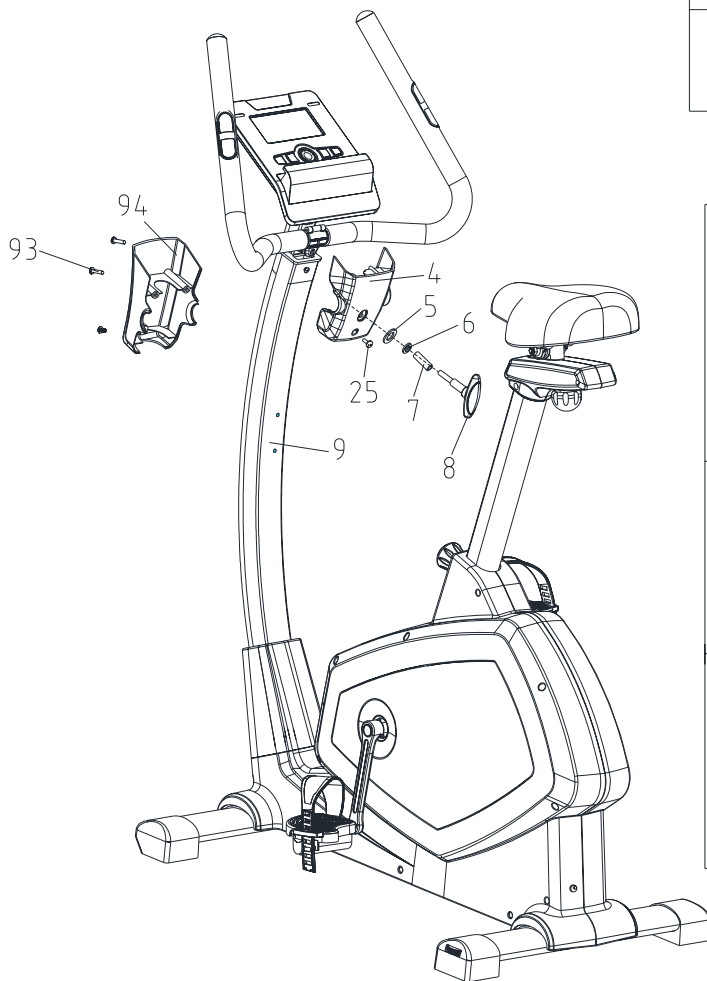


## STEP 5

- Connect the Hand Rail (#89) to the Front Post (#9), ensure the Hand Pulse cables are routed through the Front Post (#9)
- Attach the computer Hand pulse Wires to the Computer pulse connection. See Pic 3 and 4
- Connect the Computer (#1) to the Front Post (#9) using 4 x M5 Screws (#95).

# ASSEMBLY INSTRUCTIONS

2x	 (93) ST2.9x20L 2PCS
1x	 (7) ø8xø12x30L 1PCS
1x	 (5) ø8.1x2.5T 1PCS
1x	 (6) ø8xø19x2T 1PCS
1x	 (8)

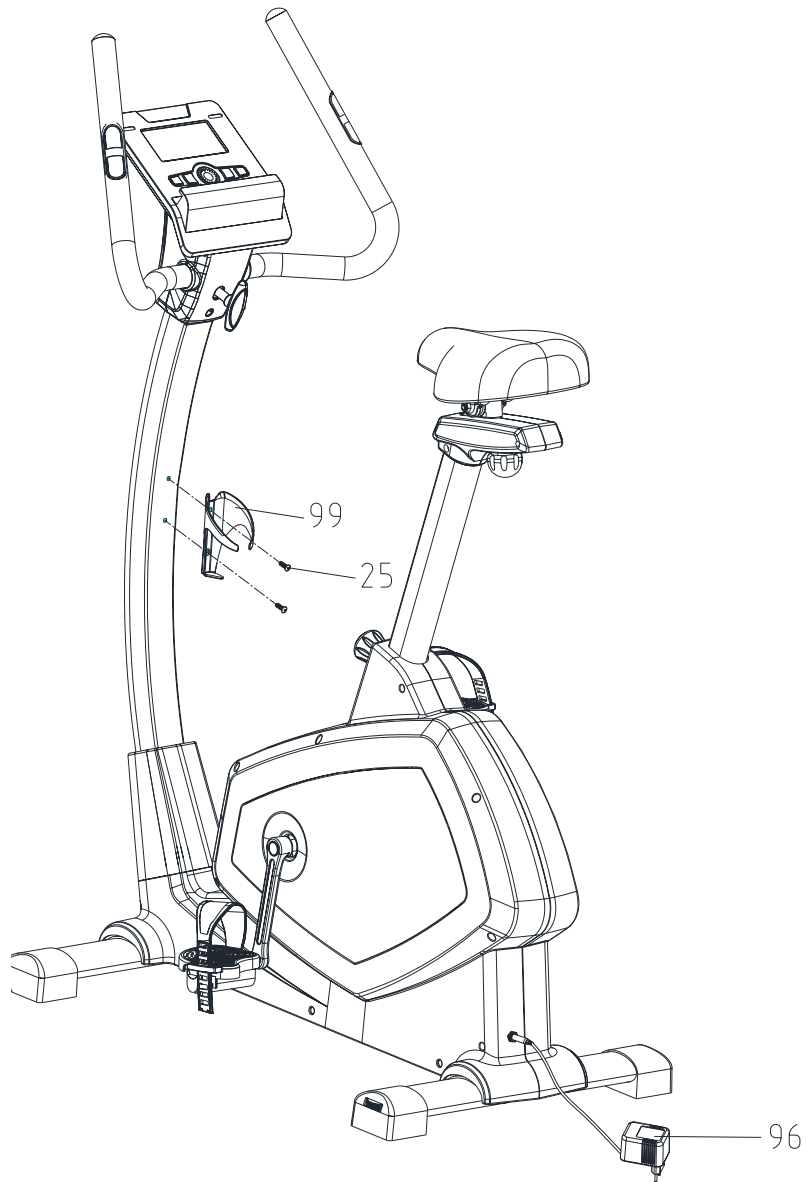


## STEP 6

- Secure the Plastic Cover (#4) over the Handle bar using the T-Shaped Knob (#8), a Sleeve (#7),
- Wave Washer (#6), Flat Washer (#5) and 1 x M5 Screw (#25).
- Connect the Rear Handle Bar Cover (#94) to the back of the Computer and Front Post using 2 x
- Screws (#93).

# ASSEMBLY INSTRUCTIONS

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## STEP 7

- Attach the Water bottle holder (#99) to the Front Post (#9) using 2 x Screws (#25).

## **CONGRATULATIONS**

Assembly of your **Elite Defender 88 Exercycle** is now complete! Be sure to fully inspect your machine before using it for the first time.

**WARNING:** *Failure to visually check and test the assembly of your exercycle before use can cause damage to the exercycle and injury.*

# USER INSTRUCTIONS



<b>SCAN</b>	: Alternates between WATTS/CALORIES and RPM/SPEED. 6 seconds per display.
<b>RPM</b>	: 0 -15-999
<b>SPEED</b>	: 0.0-99.9 km/h
<b>TIME</b>	: 0:00-99:59.
<b>DISTANCE</b>	: 0.00-99.99 km
<b>CALORIES</b>	: 0-999.
<b>WATTS CONSTANT</b>	:10-350
<b>HEART SYMBOL</b>	: ON / OFF flashes
<b>MANUAL</b>	: 1-24 level
<b>PROGRAM</b>	: P1-P12

# COMPUTER

---



## AUTO START / STOP

When exercise starts, the monitor will automatically turn on and display the progress. When exercise stops, the monitor will automatically turn off after 8 minutes to save energy. Press "MODE" key, will automatically scan Time, Speed, Distance, Calories, and ODO for every 4 seconds.

## DISPLAY:

- Time Display the elapsed time. Max value is up to 99:59
- Speed Display the current speed in miles per hour.
- Distance Display the distance traveled in Miles. Max value is 99.99 miles.
- Calories Display the calorie consumption in cal.
- (ODO) Odometer Display the accumulation of distance from previous and current exercises. Max value is 9999 miles.

## PULSE:

Press MODE button until "PULSE" appears. Before measuring your pulse rate, please place your palms of your hands on Both of your contact pads and the monitor will show your current heart beat rate in beats per minute(BPM) on the LCD after 6~7 seconds.

**Note:** Contact Heart rate sensors are for reference only and may provide inaccurate readings as they are not medically certified devices. If you require accurate heart rate readings for the purpose of training or a medical condition, please consult your Elite Fitness Sales Professional for further advice

Please note all values on this computer are approximate and they are for comparison purpose only. Do not use these values for any medical or rehabilitation purpose.



## SEAT ADJUSTMENT

---

Having your bike seat adjusted to the right height is essential for a comfortable ride, efficient pedalling and avoiding injury. There are 2 adjustments located on the seat post. The first is a vertical height adjustment, the second is for horizontal seat position. Although there are many methods and opinions on the optimal saddle setting, the following is a quick and easy method to get started. Further adjustments can be made afterwards to optimise your position and comfort.

### Saddle Height Adjustment

Place your heels on the bike pedals and pedal backward. Your legs should be fully extended with your knees straight. If your hips rock from side to side while pedalling backward, the seat is too high. Place the ball of your foot on the pedal. There should now be a slight bend in your knee when the pedal is at its lowest point. This is a good starting point.



*Saddle Height Adjustment*

### Adjusting Seat Fore and Aft Position

Once you've adjusted the seat height, it's time to find the correct fore-and-aft position of the saddle. This determines where you sit in relationship to the crank set (where the pedals are attached). This will help determine how comfortable and efficient you'll be when riding and minimises stress to the knee by being in a more neutral position. If you want to check the fore-and-aft setting at home, you will need a second person and a plumb line (a length of string with a nut or washer tied on the end will work fine).

- Whilst sitting on the seat, bring your left crank arm around and have your helper stop the crank when the pedal is at three o'clock or parallel with the floor. For this measurement to be accurate, your shoes must be correctly positioned on the pedals (the balls of your feet should be over the pedal axles).
- Holding this position, have your helper place the end of the plumb line on the front of your leg, at a point just below the bony protrusion beneath the kneecap.
- The plumb line's weight should hang over your shoe. Check again to ensure that the crank-arm and pedal are level. By looking at the plumb line the knee should be in alignment with the centre spindle or axle of the pedal.
- Adjust the saddle to the correct position then tighten the locking pin.

## CARE AND MAINTENANCE

---



### **WARNING**

### **IMPORTANT INFORMATION**

Before cleaning or carrying out any maintenance on your exercycle, ensure the power is turned off and the power cord removed from the plug socket.

Prolong the life of your exercycle by performing periodic maintenance checks. Not only does this ensure your machine is in full working order to ensure they continue to run smoothly and reliably, but it will save you service costs in the long run.

#### **Cleaning**

General cleaning of the unit after use will protect the bike's powder-coated framework and prevent unnecessary corrosion stains and damage to the structural components from sweat and perspiration.

Please ensure all sweat residue is wiped from any contact points or framework with a damp cloth using a suitable PH neutral detergent in water to avoid salt and corrosion deposits on your equipment. Failure or neglect to maintain and clean sweat residue from the bike frame may affect any frame warranty implied.

#### **Frame and Pedals**

Check all nuts and bolts securing the framework, seat and handlebar assemblies are tight.

Ensure the pedals are securely attached to the crank arms. When tightening pay attention to the reverse thread (tightening anti-clockwise) on the left hand pedal assembly, when sitting on the bike. Be careful not to strip or force the pedal thread when tightening.

# MAINTENANCE LOG

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Prolong the life of your exercycle by performing periodic maintenance checks. Not only does this ensure your machine is in full working order, but it will save you service costs in the long run.

Every time you perform maintenance, record the date and if you can, the distance and hours operated.

DATE	HOURS	DISTANCE	FRAME		SERVICE COMMENTS
			<i>Cleaned</i>	<i>Seat / Pedals</i>	

*eg:*

01/06	15	16.5km	✓	✓	none

# LIMITED WARRANTY

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## Warranty Range

Damage in correct maintenance and normal operations (not factitious factors). Warranty card to the original purchaser, shall not be transferred.

## Warranty Time

*HOME USE ONLY. This bike is not designed for commerical use.*

- 10 Year Frame
- 1 Year Parts and Labour

*The following conditions are not under warranty range:*

- A) As a result of abuse, neglect, accident, or unauthorized modification;
- B) The damage due to incorrect adjustment of the machine;

## Repair and Maintenance Service

Please contact our Elite Fitness Service Department at [eliteservice@elitefitness.co.nz](mailto:eliteservice@elitefitness.co.nz) or visit [www.elitefitness.co.nz](http://www.elitefitness.co.nz) for any service related issues or advice on preventative maintenance servicing procedures.

## WARM-UP EXERCISE

Warm up exercise is important in preparing the muscles for activity whilst minimising the risk of injury. You may choose to warm up with a light/brisk walking pace for 5-10 minutes before stopping and performing some simple stretches. (As shown in the pictures below)

### — Hamstring Stretch (Standing)

Keep your knees slightly bent and slowly lean forward, back and shoulders relaxed, reaching towards your toes. You should feel the tension and slight discomfort in your hamstring muscles. Hold for 15-20 seconds. Repeat 2-3 times.

### — Hamstrings Stretches (Seated)

Sitting on the floor preferably on a mat, put one leg straight, the other inward and close to the inside of the straight leg. Lean forward from the hips, reaching towards your toes. Hold for 10-15 seconds, and relax. Repeat 3 times for each leg (See picture 2).

### — Crus and Feet Tendon Stretches

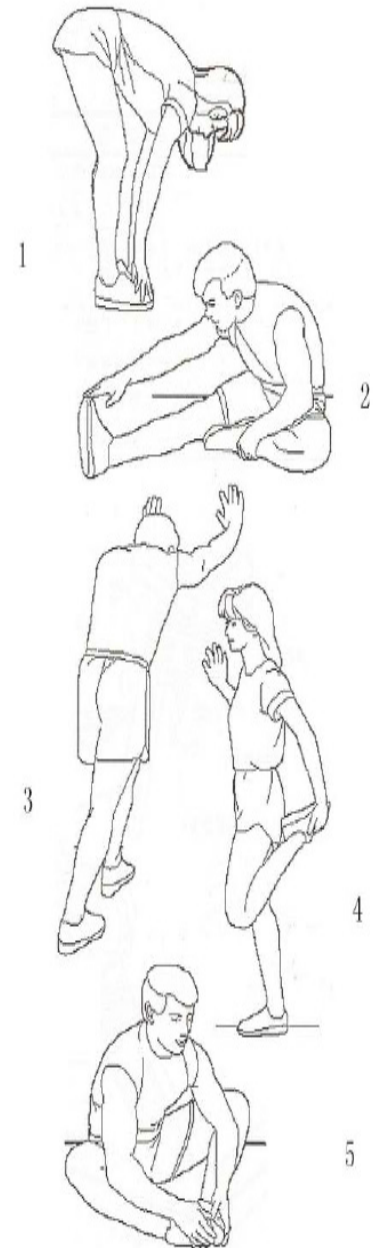
Standing with two hands on the wall or tree, one leg behind. Keeping your legs straight and the heel on the ground, lean forward towards the wall or tree. Hold for 10-15 seconds, and relax. Repeat 3 times for each leg (See picture 3).

### — Quadriceps Stretches

Keeping your balance with your left hand holding onto a wall or stationery fixture, grasp your right foot with your right hand and stretch your right heel toward your buttocks slowly, until you feel the stretch in the front of your thigh. Hold for 10-15 seconds, and relax. Repeat 3 times for each leg (See picture 4).

### — Sartorius (Inner Muscles of the Thigh) Muscle Stretches

Sitting down with the soles of your feet or shoes together and your knees positioned outward. Pull your feet towards your groin until you can feel the stretch. Hold for 10-15 seconds, and relax. Repeat 3 times (See picture 5).



# TRAINING STAGES

		Exercise Zone									
		AGE									
Beats Per Minute	100%	200	195	190	185	180	175	170	165	155	150
	<b>VO2 Max (Maximum Effort)</b>										
	90%	180	176	171	167	162	158	153	149	140	135
	<b>Anaerobic (Hardcore Training)</b>										
	80%	160	156	152	148	144	140	136	132	124	120
	<b>Aerobic (Cardio Training/Endurance)</b>										
	70%	140	137	133	130	126	123	119	116	109	105
	<b>Weight Control (Fitness/Fat Burn)</b>										
	60%	120	117	114	111	108	105	102	99	93	90
	<b>Moderate Activity (Maintenance/Warm up)</b>										
50%	100	98	95	93	90	88	85	83	78	75	

Cardiovascular training plays an important part in maintaining a healthy heart and lung function, so it's no surprise we should be paying attention to how quickly our heart beats during exercise. The chart above outlines a range of heart rate training zones determined by the individual's age and workout goals to ensure you train safely and effectively.

Heart Rate can be measured by using the radial (wrist) or carotid (neck) pulse using your index and middle fingers, counting the beats for 10 seconds and multiplying by 6. Alternatively, the use of a Wireless Telemetry Heart Rate strap and watch will give you an accurate Beats Per Minute (BPM) reading.

$220 - \text{AGE} = \text{TMHR}$  (Theoretical Maximum Heart Rate)

$\text{TMHR} \times 85\% =$  (Upper Training Limit) BPM

$\text{TMHR} \times 65\% =$  (Lower Training Limit) BPM

Note: Contact heart rate may provide inaccurate readings and is designed only as a guide

Example:  $220 - 39 = 181$  BPM

$181 \times 85\% (0.85) = 154$  BPM (Upper Training Limit)

$181 \times 65\% (0.65) = 118$  BPM (Lower Training Limit)

# PARTS

We recommend 2 people assist in assembling this unit. Place all parts of the exercycle in a cleared area and remove the packing materials. Do not dispose of the packing materials until assembly is completed. Before you start installation, inspect and prepare all parts and screws featured in this manual. When you open the carton, you will find the following parts:

PART NO.	DESCRIPTION	Q'TY	PART NO.	DESCRIPTION	Q'TY
1	Computer	1	35	Axis 40Cr $\phi 17*176L$	1
2	Cable	1	36	Wave washer 65Mn $\Phi 6.1*1.6T$	4
3	Handle pulse wire	2	37	Nylon nut M6	4
4	Plastic Cover	1	38	Main cover ABS	1
5	Flat washer Q235 $\phi 8*\phi 13*2T$	7	39	Leg-R 45 170	1
6	Wave washer 65Mn $\phi 8.5*\phi 13.5*2.5T$	1	40	Pedal-R 9/16"	1
7	Sleeve Q235 $\phi 8*\phi 12*30$	1	41	Leg cover ABS	2
8	T-Shaped Knob Q235+ABSM8*65	1	42	Screw 35 M8*P1.0*20L	2
9	Front post	1	43	Pull rod ABS	1
10	Screw Q235 M8*16	6	44	Screw 35 3/16"*3/4"	6
11	Cable	1	45	Belt 430J6	1
12	Front Cover	1	46	Nut 35 3/8"-26-7T	2
13	Sensor wire	1	47	Nut 35 3/8"*26*4.5	1
14	Sensor bar	1	48	Bearing 6000	1
15	Permanent seat PP	1	49	Small belt pulley Q235 $\Phi 34$	1
16	Pull Pin	1	50	Bearing 6203	1
17	Sleeve PP	1	51	Ratchet wheel	1
18	Seat Post	1	52	Flywheel HT200 $\Phi 280$	1
19	Screw ST2.9*20L	3	53	Bearing 6300	1
20	Cover of sliding seat ABS	1	54	Sleeve PA	1
21	Seat Slider Cover	1	55	Sleeve Q235	1
22	Seat	1	56	Idle spring 65Mn $\Phi 2*\Phi 12*53N$	1
23	Carriage bolt M8*55L*S28L	1	57	Flat washer Q235 $\Phi*\Phi 16*1T$	1
24	Cover of sliding seat ABS	1	58	Idle rod Q235	1
25	screw 35 M5*12	6	59	Idle wheel PC $\phi 40$	1
26	Sleeve Q235 $\phi 8*\phi 12*30$	1	60	Bearing 6000	2
27	Locking Pin	1	61	Nylon nut M8	2
28	Ring 65Mn $\Phi 43.5*\Phi 37.3*1.5T$	2	62	Sleeve Q235 $\phi 10*\phi 14*3L$	1
29	Bearing 6203	2	63	Screw M8*20	1
30	Sleeve Q235 $\phi 17*\phi 22*10L$	2	64	End cap PP	2
31	Screw M6*P1.0*16L	4	65	Rear stabiliser Q235 40*80*1.5T*500L	1
32	Belt pulley PA66 $\phi 260$	1	66	Semi-circle washer Q235 $\phi 8.5*\phi 16*2L$	6
33	Cover ABS	1	67	Screw M8*P1.25*56L*S20L	4
34	Screw 35 ST2.9*10L	18	68	Main Frame	1

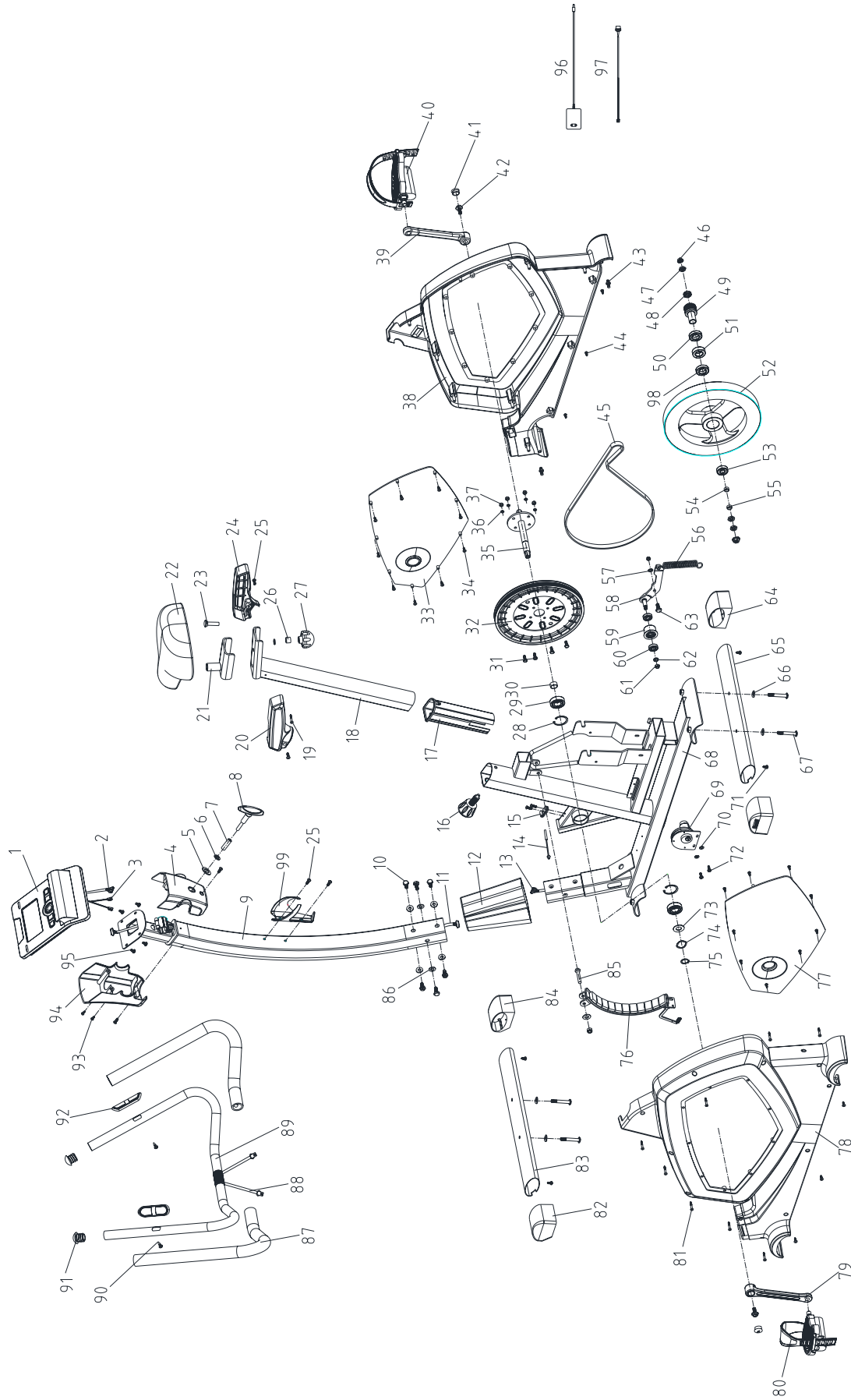
# PARTS

PART NO.	DESCRIPTION	Q'TY
69	Motor	1
70	Star washer Q235 $\Phi$ 5	2
71	Flat washer Q235 $\Phi$ 5	2
72	Screw 35 M5*16	2
73	Flat washer 65Mn $\Phi$ 17.5* $\Phi$ 25*0.3	1
74	Wave washer 65Mn $\Phi$ 17.5* $\Phi$ 25*0.3T	1
75	Coil circle 65Mn $\Phi$ 17	1
76	Spring 65Mn $\Phi$ 1.2	1
77	Cover ABS	1
78	Main cover ABS	1
79	Leg-L 45 170	1
80	Pedal-L 9/16"	1
81	Screw 35 ST3.9*50	9
82	End cap PP	2
83	Front stabiliser Q235 40*80*1.5T*460L	1
84	Magnet set	1

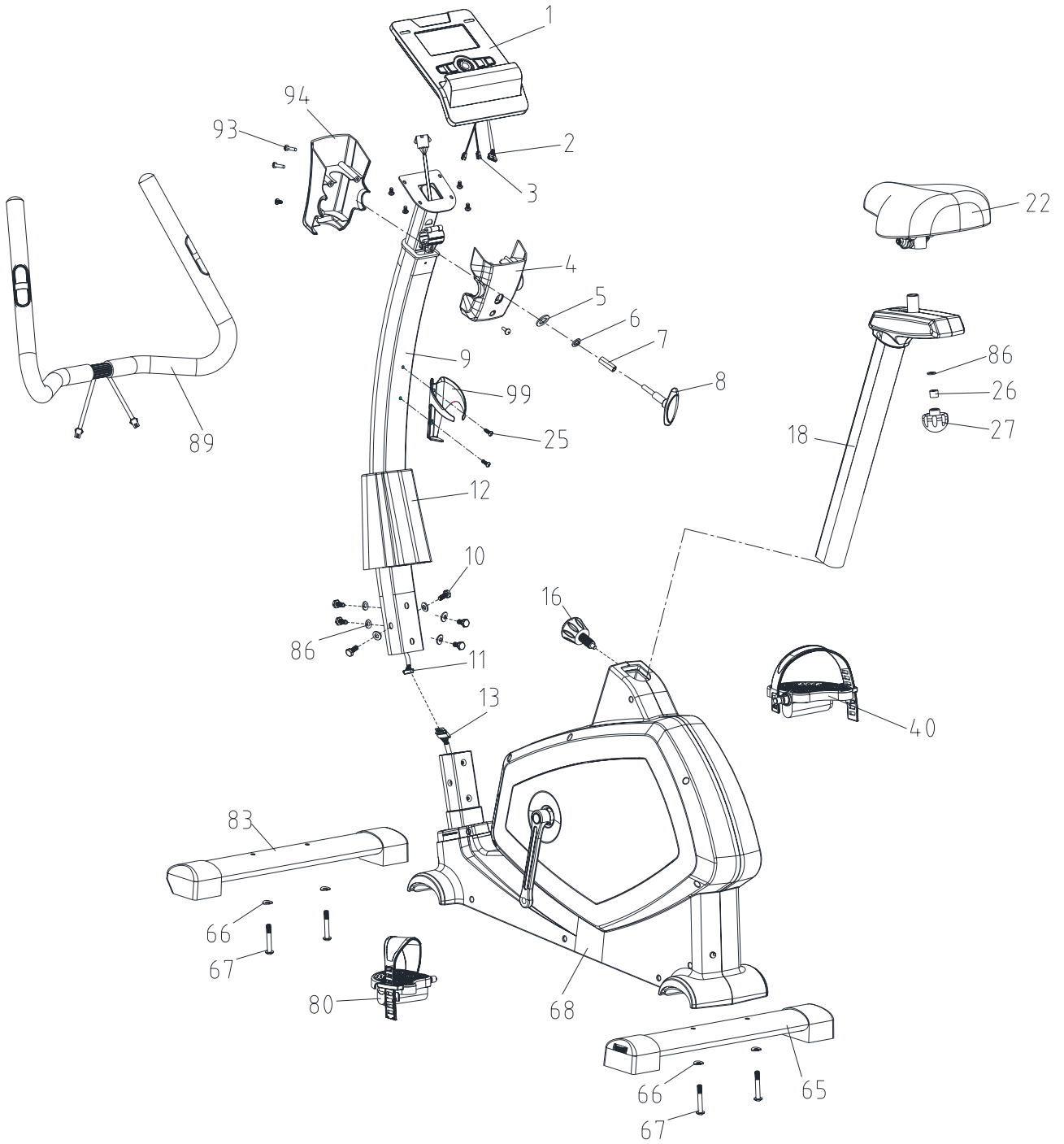
PART NO.	DESCRIPTION	Q'TY
85	Screw 8*55L	1
86	Flat washer $\Phi$ 8	4
87	Foam $\Phi$ 23*5T	2
88	Cable	2
89	Handle rail Q235 $\Phi$ 25.4*1.5T	1
90	Screw ST3.5*20L	2
91	End cap PVC $\Phi$ 25.4*	2
92	Handle pulse	2
93	Screw ST2.9*20L	2
94	Rear Handle Bar Cover	1
95	Screw 5*12	4
96	Adaptor	1
97	DC wire	1
98	Bearing 600	3
99	Water bottle holder	1



# EXPLODED DRAWING



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For more information about our Elite exercise equipment or other brands that we stock for your home, visit [www.elitefitness.co.nz](http://www.elitefitness.co.nz)

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