

Motivation Flying Start Racing Wheelchair



User Manual

June 2021

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User Manual Edition: June 2021

Name of product: Motivation Flying Start



Trade name and address of manufacturer:

Motivation Direct Limited,
Unit 2 Sheene Road, Bedminster, Bristol, BS3 4EG,
+44 (0)117 9 660 398

Latest version of User Manual can be found on the Motivation website:
www.motivation.org.uk/flying-start-racing-wheelchair

1. Introduction

1.1 Intended use:

The 'Motivation Flying Start' model is an entry-level dedicated track and road racing wheelchair to be used by children or adults. It is ideal for individuals, sports clubs, schools or universities, sports federations and community projects.

The Flying Start is designed according to international sport regulations, and is built to endure some of the toughest training conditions around the world. It can be used by a wide range of people due to the highly adjustable footplate positioning and seating position, allowing for both seated and kneeling athletes. The wheelchair can be used across any track sport distance and road and marathon racing.

The product is designed for use on sports tracks, paved and un-paved roads, but not for everyday use, in a home or work environment.

1.2 General Information

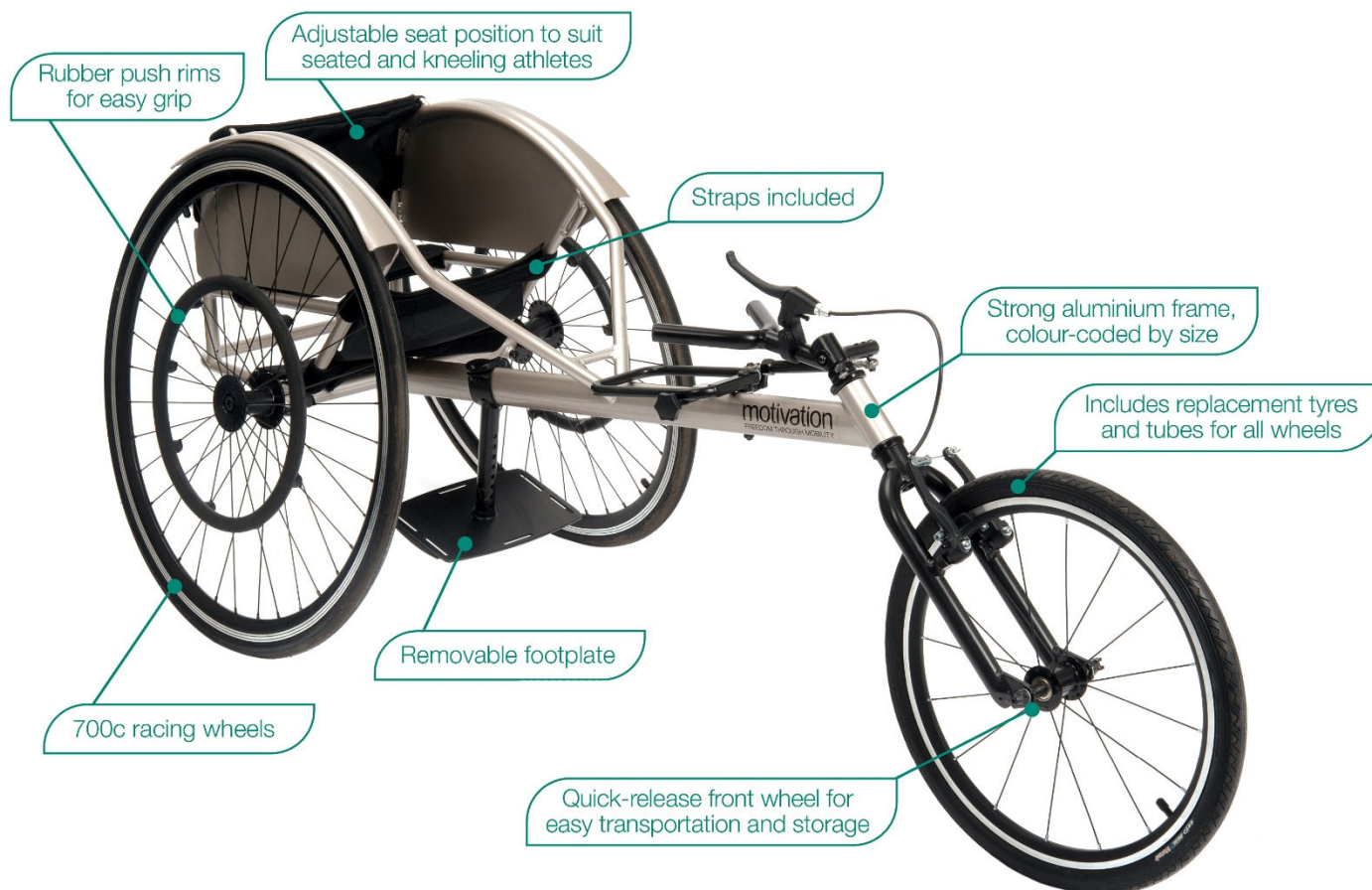
- Please read this document carefully before using this wheelchair and take care to read the safety notes
- You have received a product that is versatile for a range of sports activities, in order to exclude injuries of any type, please familiarise yourself with the handling, functions and intended use of the product before using it
- Please keep this document for your records
- New information regarding product safety and product recalls can be obtained at: www.motivation.org.uk/flying-start-racing-wheelchair
- The manufacturer reserves the right to make technical changes to the model described in these instructions for use
- The safe use of the product can only be ensured in case of intended use in accordance with the information contained in these instructions for use. The user is ultimately responsible for accident-free operation.



Flying Start model with upholstery in 'kneeling mode'

2. Product Description and Features

Key Features:



Other Features:

- The wheelchair is available in four different widths: 250mm (10”), 300mm (12”), 350mm (14”), 400mm (16”)
- Each of the four width sizes of frame come in a different colour, to allow quick identification of sizes for athletes and coaches, within a club environment
- Every wheelchair comes with 3 body straps to provide a wide range of support options
- Removable anti-tipper is included for added confidence and safety when racing and transferring in and out of the wheelchair
- Spare parts for this product are also available for purchase from Motivation
- The wheelchair has been designed so that parts are easy to replace or repair and uses common wheel and bearing sizes
- Comes with a maintenance toolkit.

Like all Motivation wheelchairs, the Flying Start is low-cost, easy to assemble and inexpensive to maintain.

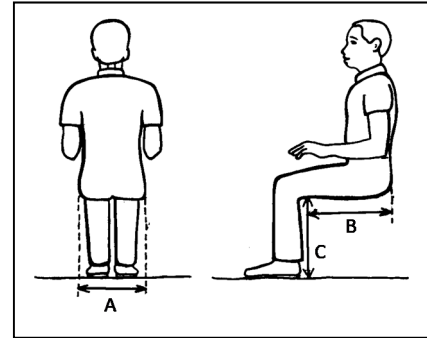
It is easy to adjust and feels safe for new users, but allows for fast-paced competition across different terrains and environments.

3. Technical Specifications:

Multisport Adult model

User group information

- The wheelchair can be used by people with a range of mobility disabilities.
- The wheelchair is suitable for users whose body measurements fall within the following ranges:
 - A. Hip width: 250 mm (10") – 400 mm (16")
 - B. Buttock to back of knee: 350 mm (14") – 480 mm (19")
 - C. Back of knee height from bottom of feet: 450 mm (16") – 500 mm (20")
- Maximum user weight: 100kg (220lbs)



Environment

- The wheelchair has good straight-line stability, on both indoor and outdoor tracks and on outdoor roads, due to its steering cylinder adjustment
- The wheelchair is stable and manoeuvrable due to its steering override system and lever brake
- The wheelchair is robust and it withstands the challenges faced by rough sports environments.

Adjustments

Seat depth	The seat panel must be set according to the user's preference: sitting or kneeling. For sitting position the panel can be set to either 175mm (7") or 250mm (10") depth. For kneeling, the panel is set to 350mm (14") depth. The seat is tension adjustable.
Backrest height	The backrest can be either 150mm (6") or 200mm (8") high. But normally is kept at the 200mm (8") setting. The backrest straps are tension adjustable to allow different backrest contour shapes depending on whether the athlete is kneeling or sitting
Footrest height	The footrest is height adjustable 10 positions, 135mm total height adjustability range, min height 175mm, max height 310mm. Then footrest is also angle adjustable in: 4 angles. The footrest can also be adjustable back and forth, 350mm adjustment range- dimension C in the above diagram.
Anti-tip bar	The anti-tip can be quickly inserted onto the back of the wheelchair with the end close to the ground, but can also be inserted the other way up, and out the way when not needed.
Straps	The Flying Start Wheelchair is provided with a set of straps (foot strap, knee strap, lap strap) that can be used according to individual's needs.

Performance Specifications

Armrests	The wheelchair is supplied with low profile curved armrests.
Backrest	Supportive fabric backrest, with tension adjustable straps, using a Velcro fastening system. Durable and water resistant nylon upholstery.
Box Details	Box dimensions: 1610 x 715 x 530mm. Plain brown five ply cardboard with black printed graphics. The packaging is <i>not</i> waterproof.
Front wheel	One front wheel, pneumatic tyre, size 20" x 1.20" Front wheel comes with 1 spare tyre and inner tube
Colour	Each size of wheelchair comes in a different frame colour, to allow quick identification of sizes for athletes, within a club environment. Small: Silver, Medium: Green, Large: Red, X-Large: Blue
Cushion	No cushion is supplied for this product.
Disposal	The WMRC-02 has been designed to be disassembled for re-use or recycling at the end of its serviceable life. If disposal is necessary please contact a local service provider first as they may be able to reuse parts of the wheelchair.
Lifecycle	The product is designed to provide 3 - 5 years of service, during normal use and providing it is appropriately maintained.
Push rings	20 mm diameter, rubber coated push rims (335 mm wide)
Rear wheels	700c performance rear wheels, with 36 spoke aluminium rims. Robust 36 spoke aluminium hub with two sealed bearings and diameter 12 mm high tensile axles. Product comes with 2 spare tyres and inner tubes
Seat	Slung fabric seat upholstery, with tension adjustable straps (Velcro fastening system). Water resistant nylon upholstery.
Standards	This product is ISO 9001 (2008- 2013) and ISO 13845 (2008- 2013) certified and has the CE mark so meets EU consumer requirements.
Straps	One foot strap, one knee strap and one lap strap are supplied with the chair. All the straps have built-in adjustability with the Velcro fastening system.
Transport / storage	The front wheel can be quickly removed, for product storage and transportation.
Tyres	Pneumatic – high pressure, low profile sport tyres.
Weight	Current net weight of wheelchair approx: 13 kg

4. Assembly of your Flying Start

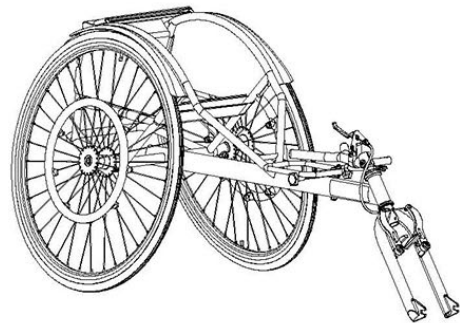
Contents:

- Step 1: Rear Wheel Assembly
- Step 2: Front Wheel Assembly
- Step 3: Footplate Assembly and Adjustment
- Step 4: Steering Alignment
- Step 5: Steering Adjustment
- Step 6: Anti-tip Bar Assembly and Adjustment
- Step 7: Upholstery Assembly and Adjustment

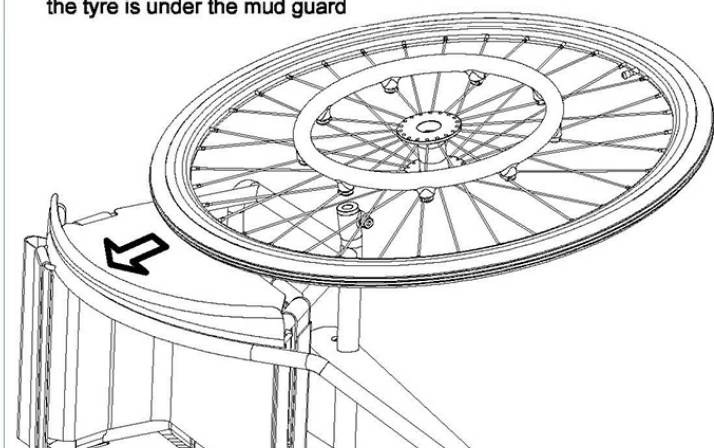
Assembly and adjustment video resources are available here:

www.motivation.org.uk/flying-start-racing-wheelchair

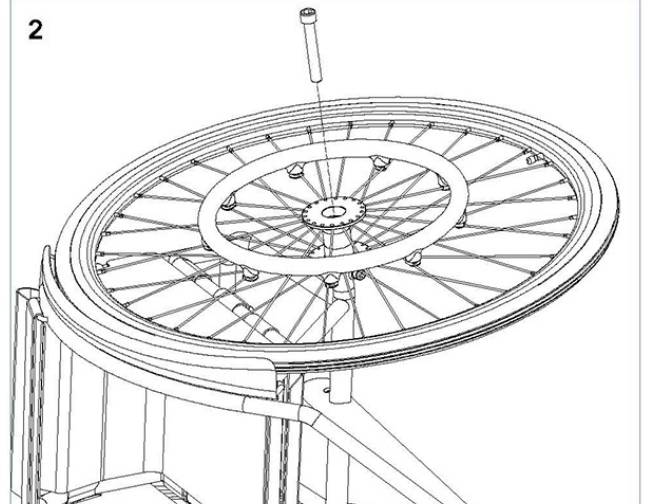
Step 1 - Rear Wheel Assembly



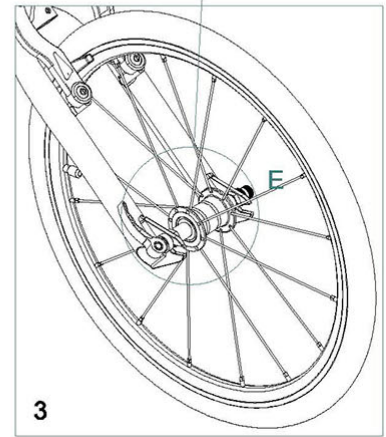
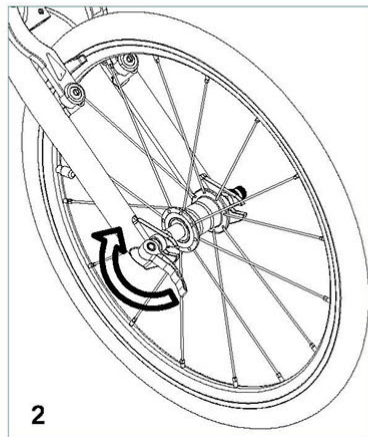
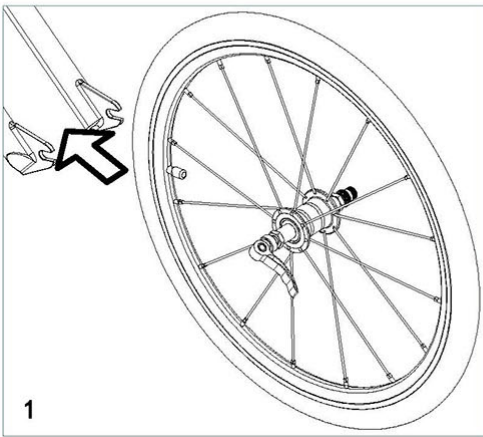
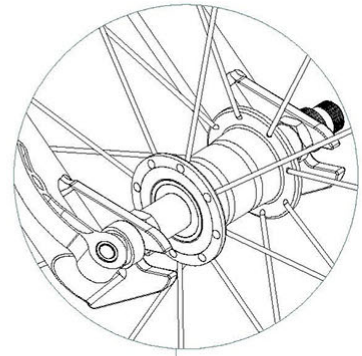
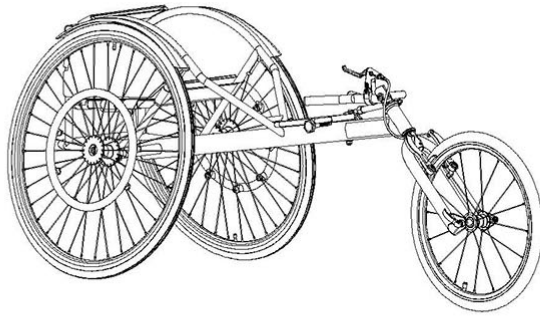
1 Slide the wheel into position, making sure the tyre is under the mud guard



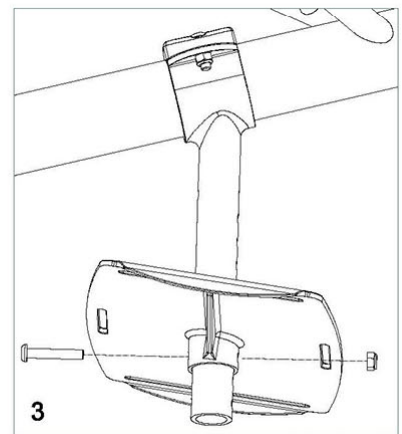
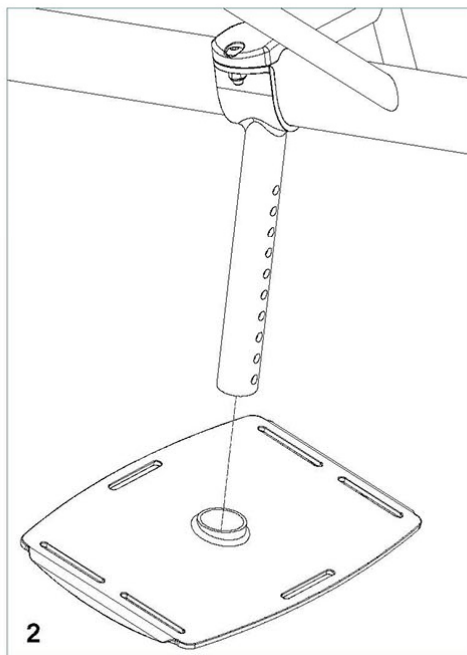
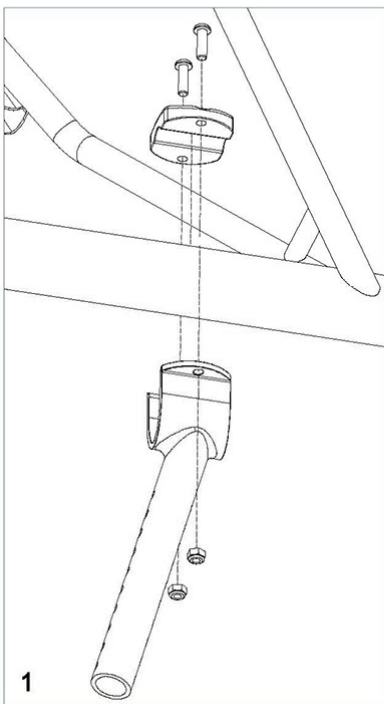
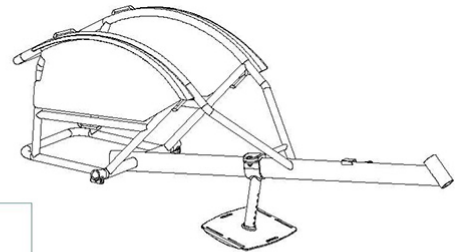
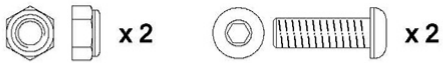
2



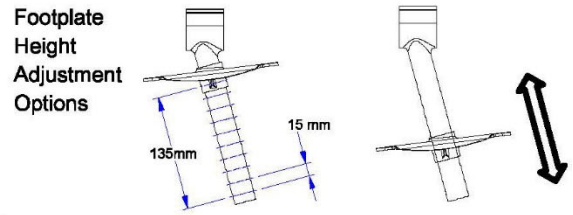
Step 2 - Front Wheel Assembly



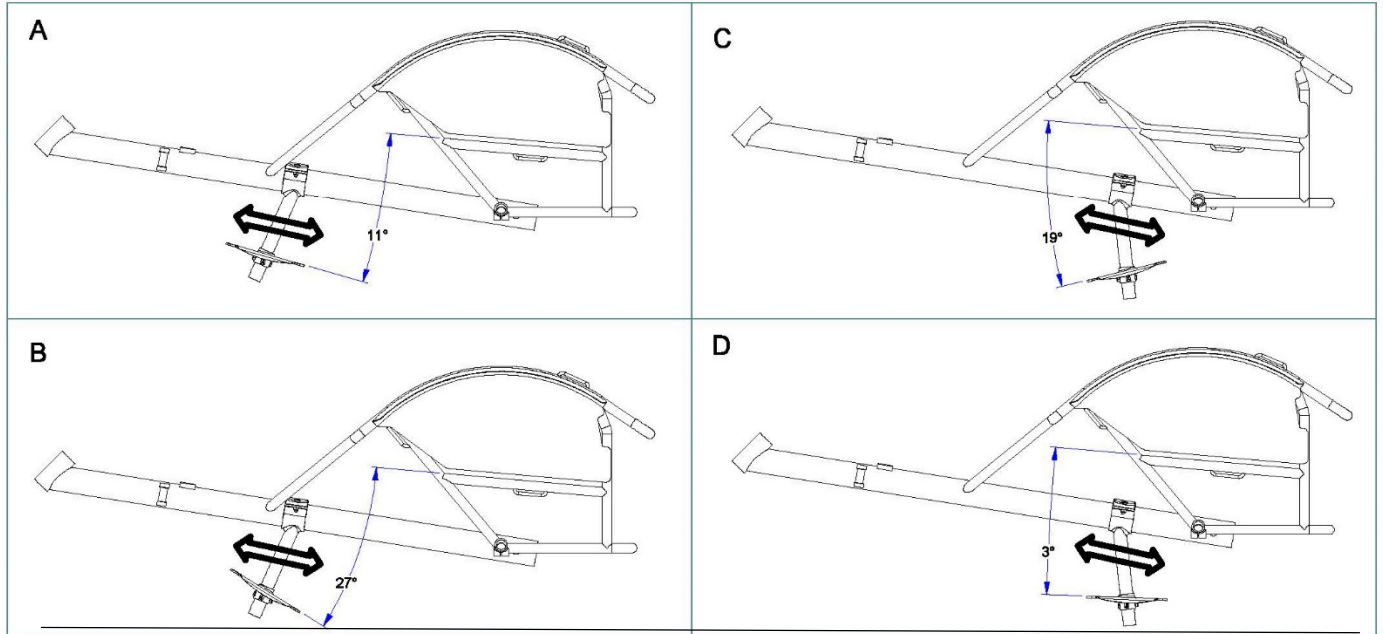
Step 3 - Footplate Assembly and Adjustment



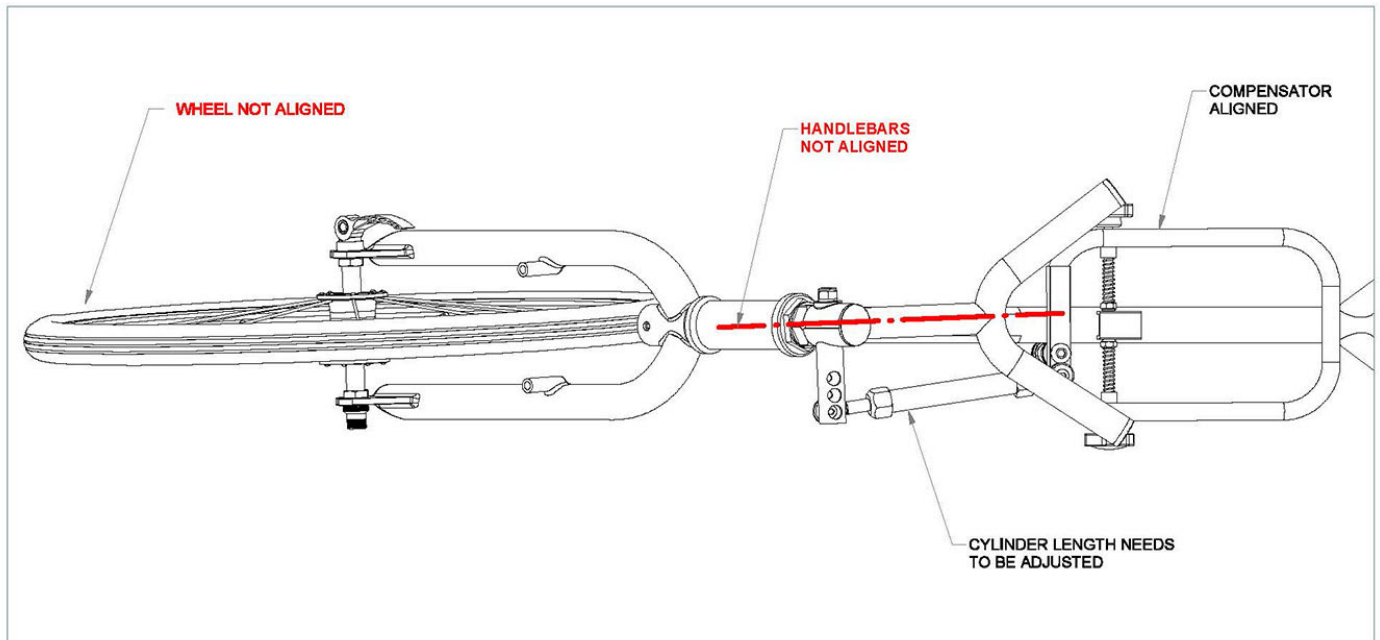
Step 3 - Footplate Assembly and Adjustment



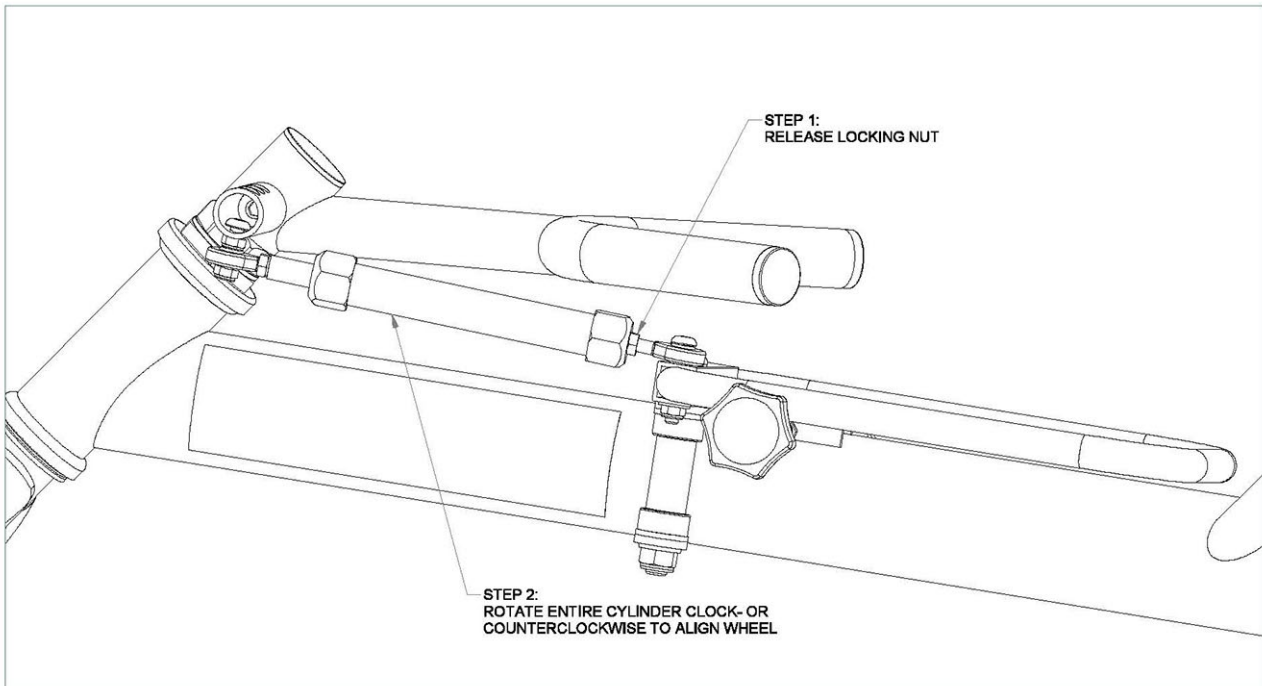
Footplate Angle options: A, B, C and D (all with forward/back adjustment, as shown)



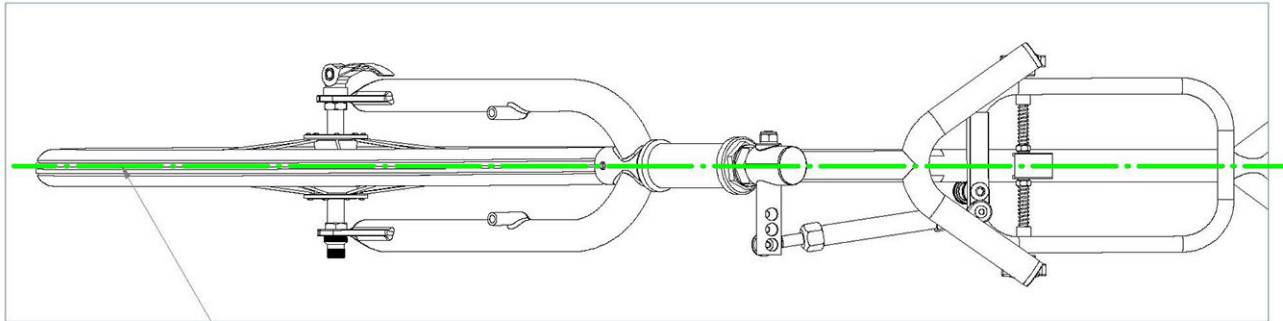
Step 4 - Steering Alignment



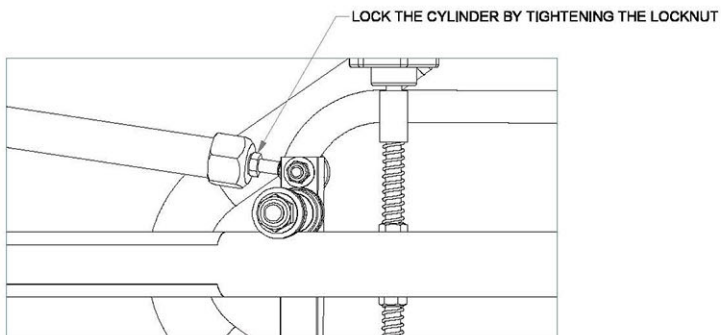
Step 4 - Steering Alignment



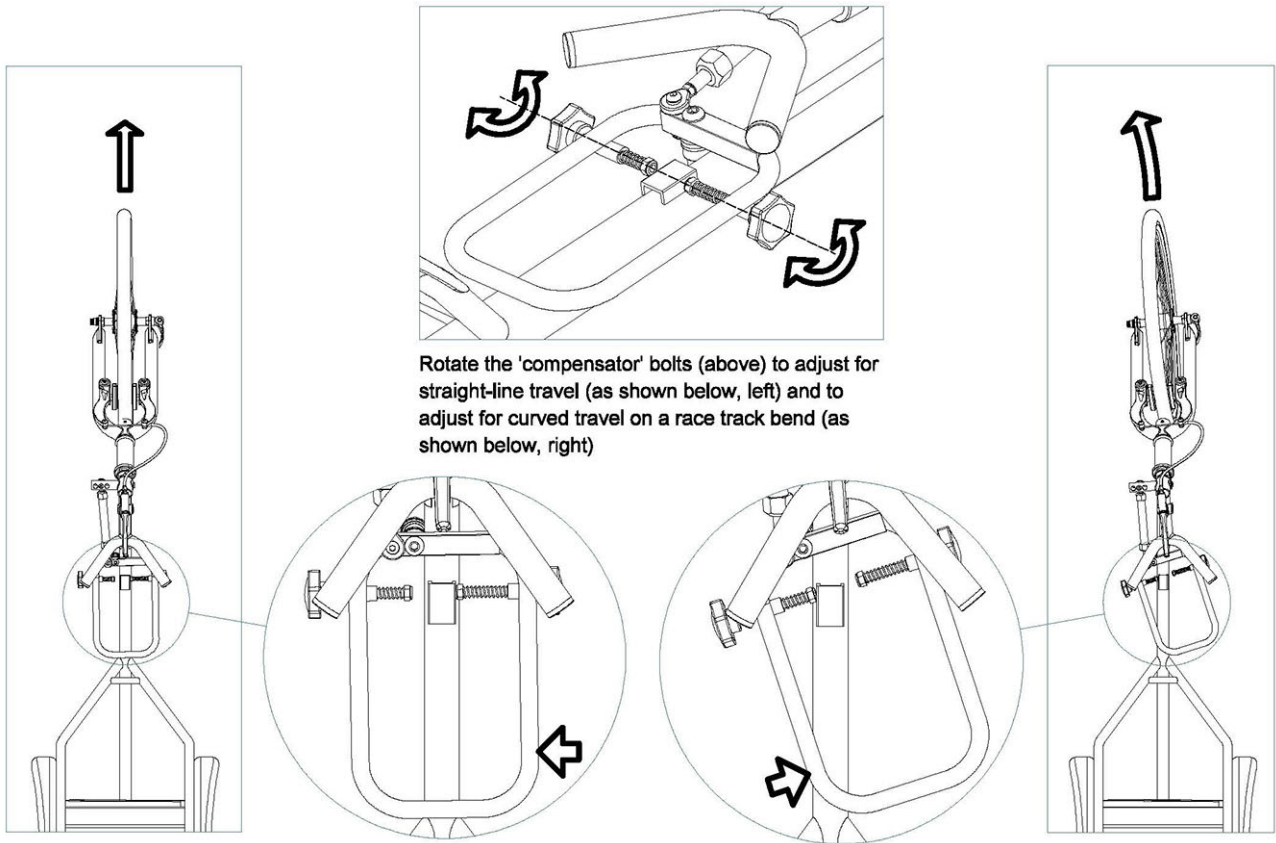
Step 4 - Steering Alignment



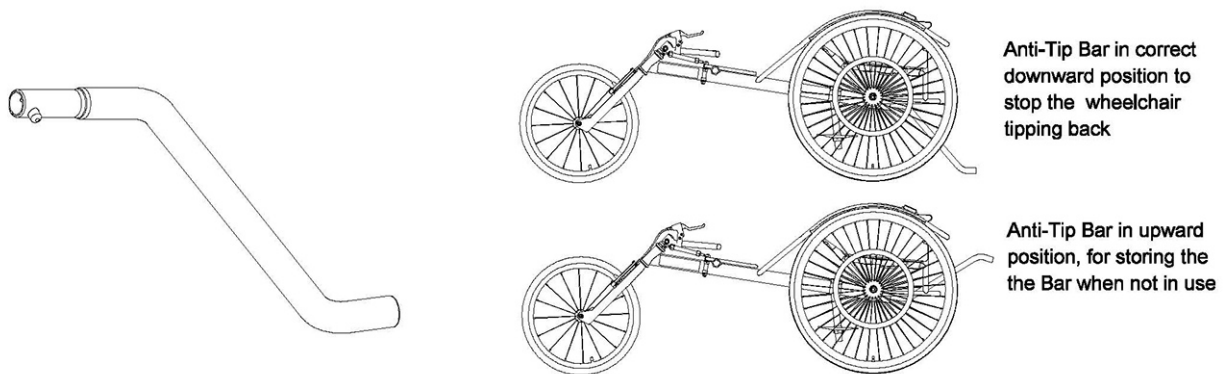
STEP 3: WHEN THE WHEEL IS PERFECTLY STRAIGHT,



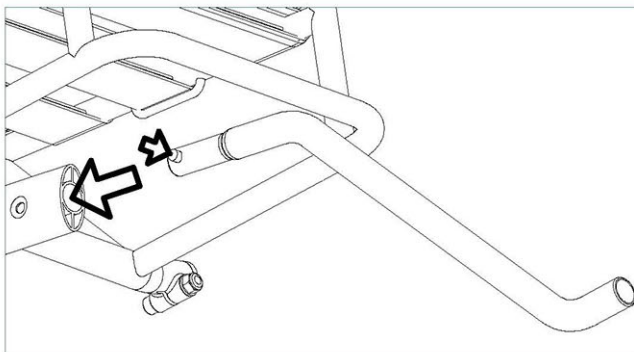
Step 5 - Steering Adjustment



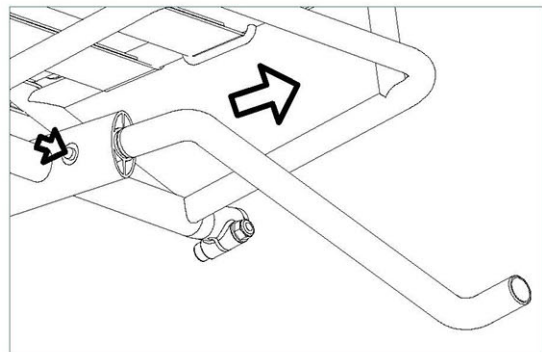
Step 6 - Anti-tip Bar Assembly and Adjustment



Attaching the Anti-Tip Bar in place, using the spring-pin



Removing the Anti-Tip Bar, using the spring-pin



Step 7 - Upholstery Assembly and Adjustment

Sitting Position

Backrest Panel set-up



View of backrest straps attached to seat rail



Backrest and Kneeling panel in place



Kneeling Position

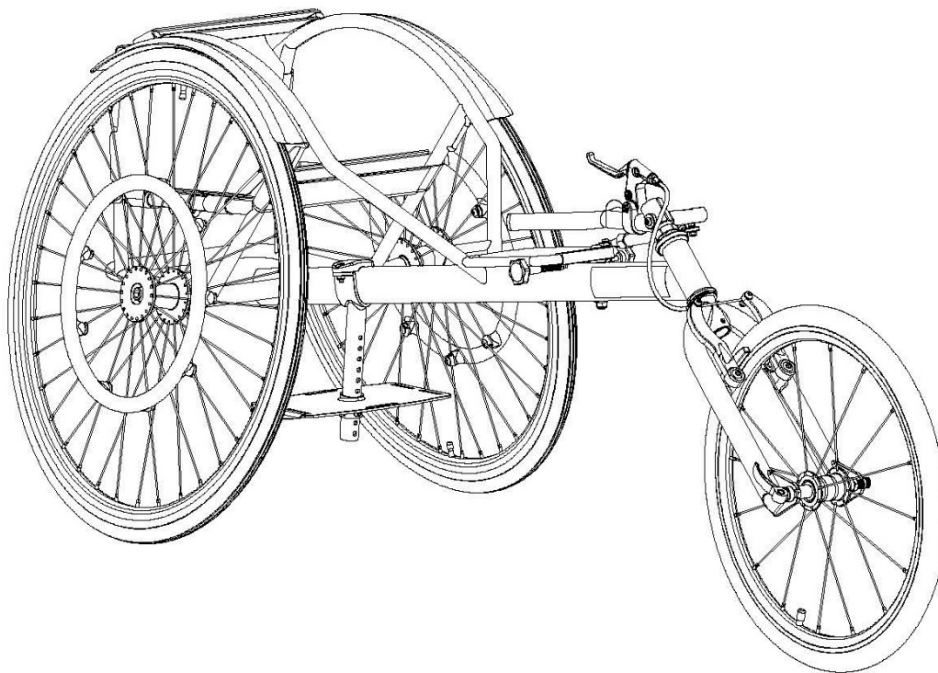
Backrest Panel set-up



Kneeling Panel set-up
(angle of pad is altered by adjusting the straps)



Backrest and Kneeling panel in place



Complete Assembly of Flying Start

5. Safety Notes

5.1 Safety check before use:

Once the sports wheelchair has been assembled, using the Assembly Manual and Assembly Video to guide you through the correct assembly, please carry out the following safety checks before using the wheelchair for the first time. **Remember to not 'over-tighten' the nuts and bolts.**

- Front wheel spins freely
- Front brake quick-release mechanism correctly attached
- Front wheel quick-release axle is tight
- Front wheel is correctly aligned for straight line travel
- Steering Cylinder lock-nut is tight
- Footrest bolt is fully tight
- Footrest mounting clamp bolts are fully tight
- Backrest straps are firmly fastened together
- Seat straps are firmly fastened together
- Rear wheel axles are securely tightened to the frame
- Rear wheels spin freely
- Tyres are inflated to the proper pressure (see the tyre wall for recommended pressure)
- Anti-Tip bar is securely located (if being used)
- Steering Compensator is adjusted to your activity needs
- Straps are correctly located.

5.2 Transporting the wheelchair

- Un-hook the front brake wire from the quick-release mechanism
- Remove the quick-release front wheel
- Remove the rear wheels and anti-tip bar before transportation
- Do not pick up the wheelchair up by the upholstery, always pick the wheelchair up by the frame
- When replacing the front and rear wheels to the frame, always check the axles are clean before tightening into the frame
- Always remember to re-locate the front brake wire correctly to the brake arms before use

5.3 Storing and handling

- The front and rear wheels can be removed, for product storage
- Always pick up the frame by the tubing, taking care not to overbalance, and avoid knocking the frame into obstacles, as this will damage the paint finish
- Do not drop the product from a height, as this can damage the frame, steering assemblies, and wheel alignment
- Wipe down wheels, before storing
- The product should always be stored in a dry place.

5.4 General reminders

- Do not leave the product outside during heavy rain or saturate with water when cleaning. If the Flying Start does get saturated, dry it off at the earliest opportunity
- Keeping the wheelchair clean will increase the life of the wheelchair
- If the paint on the frame becomes scratched, paint the affected area immediately to ensure that it does not corrode
- The wheelchair comes with three straps for use during competition, these straps are important both for safety and for improved performance as they help to keep the body stable during movement.
- Always use the anti-tip bar, until the athlete and any assistants are fully confident in using the racing chair and in transferring in and out safely without tipping backwards in the wheelchair.

5.5 Limitations of use

Maximum user weight: 100kg

This Flying Start wheelchair is intended for sports and training activities only, and not intended as a daily-use wheelchair or treatment of any medical condition, but is for recreational purposes only. Any other use is prohibited.

A helmet must always be worn when operating the racing wheelchair

5.6 Information about substances that are subject to labels

No reportable Substances of Very High Concern (SVHC) ingredients as per **Regulation (EC) No 1907/2006** - Registration, Evaluation, Authorisation and Restriction of Chemicals (**REACH**).

Homogenous materials in the sports wheelchairs do not contain any of the below mentioned substances over the defined limit values.

Substance	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (CrVI+)	Polybromated biphenyl (PBB)	Polybrominated diphenyl ethers (PBDE)
Limit value W/W%	0.1	0.1	0.1	0.1	0.1	0.1

5.7 Safe disposal of device and consumable components or parts

The Flying Start has been designed to be disassembled for re-use or recycling at the end of its serviceable life. All components must be disposed of properly in accordance to the respective national environmental regulations.

5.8 Reporting a serious incident

If a serious incident occurs, in relation to the device, the product user must report this to the company that the product was purchased from (point of purchase), or the manufacturer (contact at: info@motivation.org.uk) as well as the competent authority in country.

6. Product Feedback and Spare Parts

Enquiries for spare parts and any product issues, should in the first instance, be made to the company that the product was purchased from (at point of purchase).

Otherwise contact Motivation Direct Limited at: info@motivation.org.uk

A Flying Start 'Parts Browser', to help identify names of relevant parts, can be found here: www.motivation.org.uk/document-sharing-page

For any General Enquiries please contact Motivation Direct Limited at: info@motivation.org.uk

7. Liability

The manufacturer will only assume liability if the product is used in accordance with the descriptions and instructions provided in this document. The manufacturer will not assume liability for damage caused by disregarding the information in this document, particularly due to improper use or unauthorised modification of the product.

Our liability under any legal theory (including, inter alia, contract and tort) is limited to the fullest extent permissible by the law of your country.

8. Warranty

Subject to the limitation clauses below, we warrant each new Motivation Flying Start racing wheelchair frame and components (excluding tyres, inner tubes, push handles, bushings, bearings, axles, and spokes) purchased from us against defects in workmanship and materials for a period of twelve (12) months from the delivery date to the distributor.

Limitation Clauses:

- (a) The warranty is limited to the repair or replacement of a defective Motivation Flying Start racing wheelchair frame and/or component(s) during the warranty period at our absolute discretion
- (b) Any part repaired or replaced under the Warranty will be covered for the remaining period of the Warranty of the Motivation Flying Start racing wheelchair
- (c) The Warranty applies only to the original owner (that is the person who bought the Motivation Flying Start racing wheelchair direct from us) and is not transferrable to subsequent owners of the Motivation Flying Start racing wheelchair
- (d) The Warranty excludes Motivation Flying Start racing wheelchair used in competition, hire or rental.
- (e) The Warranty does not cover:
 - a. Normal wear and tear
 - b. Improper assembly, operation, maintenance or storage
 - c. Modification or installation of parts and accessories not originally intended for or compatible with the Motivation Multisport sports wheelchair as sold
 - d. Damage that is the result of accident, abuse, misuse, collision impact, or negligence
 - e. Repairs made to any part other than repairs made by us.

If you are contracting as a consumer this Warranty is in addition to your legal rights in relation to the delivered products.

9. Care and Maintenance

Care and maintenance is very important to keep your sports wheelchair in the best possible condition and will increase the life of the wheelchair and will allow you to get the most out of your product

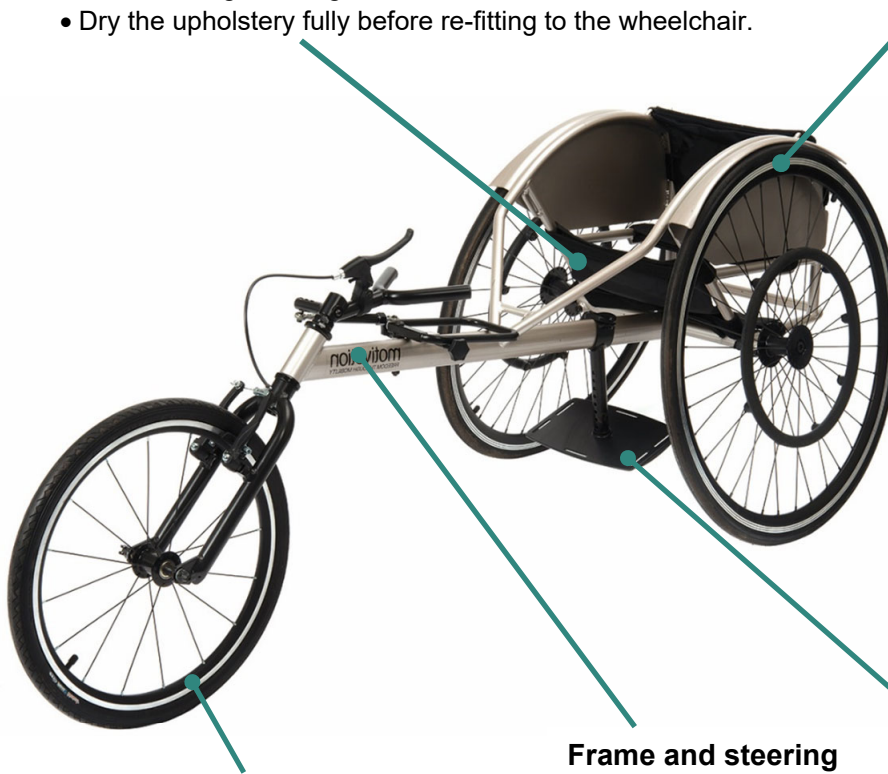
- Check over all parts of your Flying Start regularly, for damage or wear and replace if necessary.
- Check all parts are working properly before use.

Cushion and Upholstery

- Check condition at least once a month
- Look for ripped or torn fabric or seams
- Keep the seat upholstery tight at all times
- Wash the upholstery whenever it is unclean or if it comes in contact with urine.
- Clean with light detergent and water
- Dry the upholstery fully before re-fitting to the wheelchair.

Rear Wheels

- If the wheels do not run smoothly, the bearings may need changing
- Check the wheels are not touching or rubbing against the frame
- Check tyres are properly inflated, daily, and pump up if tyre feels soft, to ensure tyres last longer
- Check tyres for cracks or wear
- Fix any punctures immediately
- Check spokes are tight at least once a month
- Check the rear wheel axles are free of dirt to ensure a proper secure fit
- Check pushrims are securely fastened to the spokes.
- Check the pushrim rubber surface for wear or cracks



Front wheel and Brake

- Check tyre is properly inflated, and pump up if tyre feels soft, to ensure tyre lasts longer
- Check the front wheel runs smoothly, if not, the bearings may need wiping clean or replacing
- Check the front wheel quick-release axle is secure and tight
- Check brake pads are not touching the front wheel rim when not in use
- Check that there is not excessive wear on the brake pads and replace if necessary
- Check that the brake is working properly

Frame and steering

- Check frame for wear and cracks
- Check cylinder and compensator attachment bolts are secure and tight
- Check there is no excessive looseness or side to side movement with the steering arm

Footrest

- Check footrest straps for wear or damage
- Check footrest and mounting for wear, scratches or cracks
- Never stand or carry loads on the footrest
- Check the footrest bolts are tight at least once a month

10. Troubleshooting problems

Problem	Possible cause	Action
The wheelchair veers left or right	Incorrect tyre pressure	Check tyres for correct and equal pressure. If necessary, correct tyre pressure
	Rear wheels may not rotate freely	Check rear wheels rotate freely, check if bearings are worn. Clean hub and axle, or replace bearings as necessary
Sluggish turn or performance	Tyre pressure may be incorrect	Check tyres for correct and equal pressure. If necessary, correct tyre pressure
	Front fork hardware is incorrectly adjusted	Check front fork hardware, check if the headstock is too tight or if the headstock bearings are worn. Adjust headstock very slightly, or replace headstock bearings as necessary
	Rear wheels may not rotate freely	Check rear wheels rotate freely, check if bearings are worn. Clean hub and axle, or replace bearings as necessary
	Incorrect tyre pressure	Check tyres for correct pressure. If necessary, correct tyre pressure
Front wheel has flutter or wobble	Loose or worn bearings	Check if bearings are worn, replace bearings as necessary
	Loose steering system	Check that all the nuts and bolts are tight on the compensator, headstock, steering cylinder, fork and front wheel
Wheelchair squeaks and/or rattles	Brake touching the wheel	Check brake pads are not rubbing on front wheel rim
	Loose hardware	Check spokes, spoke-nipples, all attachment hardware, and hand-rim hardware. If necessary, tighten hardware
Looseness in wheelchair	Rear axles are loose	Check rear axles are tight into the frame
	Loose hardware	Check spokes, nipples, all attachment hardware, and hand-rims. If necessary, tighten hardware
Feet do not reach the footplate	Footplate is not adjusted high enough	Re-adjust the footplate to a higher setting, and check the footplate angle is comfortable for the athlete
The seat fabric is sagging	Seat straps have come undone or are loose	Tighten the straps by re-fastening them as tightly as possible
	Velcro fastening is not pressed together tightly	Check the straps and press the velcro hook and loop sections together firmly

11. General Safety Warnings

11.1 Explanation of warning symbols:

⚠ WARNING - Indicates a hazardous situation regarding possible serious risks of accident or injury.

⚠ CAUTION - Indicates a hazardous situation regarding possible risks of accident or injury.

IMPORTANT - Indicates a potentially hazardous situation regarding possible technical damage.

11.2 Safety instructions for use:

⚠ CAUTION – The function of the product should be checked **before each use**.

⚠ WARNING - Do not use this Flying Start wheelchair without first reading and understanding the instructions and information contained in the User Manual. If you are unable to understand the information, please contact the company that the product was purchased from (at point of purchase).

⚠ WARNING – ALWAYS attach the anti-tip bar before transferring in and out of the Flying Start, and try and get the Flying Start as close as possible to the object you are transferring in or out of.

⚠ WARNING – DO NOT smoke while using this Flying Start wheelchair. Seating components fulfil normative requirements for flame resistance, however, users are at risk from a potential fire caused by a dropped cigarette onto the fabric seating parts.

⚠ WARNING – A helmet **MUST** always be worn when using this wheelchair

⚠ WARNING – Feet **MUST** be secured to footplate with strap before using the Flying Start, otherwise injury may occur

⚠ WARNING – ALWAYS check the brake for correct operation, before using the Flying Start

⚠ WARNING – The Flying Start should ALWAYS remain upright and stable when turning and cornering

⚠ CAUTION - Use caution when using a new seating position in the Flying Start wheelchair, due to the new position causing a potential decrease in product stability. The rear anti-tipper should be used to provide adequate stability for each wheelchair user.

⚠ CAUTION - Do not use your Flying Start wheelchair unless the tyres are inflated to the correct pressure. Do not over-inflate the tyre. The recommended tyre pressure is on the sidewall of the tyre.

⚠ WARNING – DO NOT use the Flying Start wheelchair with more than one person at any one time and do not carry any items that may cause you to use the wheelchair improperly.

⚠ CAUTION – Do not reach into the spokes of the rotating drive wheels.

⚠ CAUTION – Risk of skin damage due to overloading. Check your skin before and during the use of this product. Be diligent with skin care and pressure redistribution at regular times when not using this product. If skin damage or other problems occur during use, stop using the product until the skin damage is healed.

⚠ CAUTION – DO NOT exceed the maximum load capacity (see 'limitations of use' section).

⚠ WARNING – DO NOT try to go up or down slopes or inclines that have hazardous surfaces, including ice or slippery or loose surfaces such as oil films.

⚠ WARNING – DO NOT ride over obstacles such as speed bumps or curbs, as this could cause the wheelchair to turn over and cause injury to the user and damage to the wheelchair

⚠ CAUTION – If there is loss of functionality of the seat and back upholstery due to wear or damage, then the product must not be used until the necessary parts have been replaced.

⚠ WARNING – After each re-attachment of the rear wheels to the frame, the axles must be checked as being correctly tightened into the frame axle mounting.

⚠ WARNING – The user is not permitted to sit in the Flying Start wheelchair during wheel re-attachment.

IMPORTANT – If used on sandy surfaces, regularly check that the wheel bearings are not damaged by sand or other particles.

IMPORTANT – DO NOT use the product in salt water.

11.3 Maintenance and spares:

IMPORTANT – Always provide the Flying Start wheelchair serial number, to assist in obtaining the correct replacement parts.

⚠ WARNING – The user is responsible for normal maintenance and cleaning of the Flying Start to keep the wheelchair in adequate working condition

⚠ WARNING – Use of non-Motivation Direct Limited parts or accessories may result in serious injury or damage. Any use of non-Motivation Direct Limited parts or accessories are at the owners' risk, and nullifies any liability to Motivation Direct Limited.

⚠ CAUTION – All servicing and adjustments made on the Flying Start wheelchair, should be carried out whilst the wheelchair is unoccupied.

⚠ WARNING – Motivation Direct Limited assumes no liability for combinations with medical devices and/or accessories from other manufacturers.

⚠ WARNING – The manufacturer is not responsible for part failure, damage, or injury caused by a lack of, or improper, maintenance and use by the user.

IMPORTANT – Clean the product at regular intervals to reduce damage and wear to the product.

IMPORTANT – DO NOT clean the product with a jet of water or a pressure washer. The penetration of water can cause corrosion and subsequent malfunctions.

IMPORTANT – To avoid contamination with germs, clean the seat, cushion and backrest upholstery whenever they get soiled.