

# ETHOS

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USER INSTRUCTION MANUAL & WARRANTY  
MANUAL DE INSTRUCCIONES Y GARANTÍA



# I. INTRODUCTION

## **Thank you for purchasing an Ethos wheelchair!**

Please do not use this wheelchair without first reading this entire manual. BEFORE riding, you should be trained in the safe use of this chair by an Assistive Technology Practitioner (ATP) or clinical professional.

If you have any questions or concerns about any aspect of this wheelchair, this manual, or the service provided by us or your retail supplier, please do not hesitate to contact us by telephone:



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# III. NOTICE - READ BEFORE USE

## A. Your Safety and Stability

Ki Mobility manufactures many different wheelchairs that might meet your needs. You should consult an Assistive Technology Professional when selecting which model would best meet your particular requirements and how the wheelchair should be set up and adjusted. Final selection of the type of wheelchair, options and adjustments rests solely with you and your medical professional. The options you choose and the set-up and adjustment of the wheelchair have a direct impact on its stability. Factors to consider that affect your safety and stability are:

- a. Your personal abilities and capabilities including strength, balance and coordination.
- b. The types of hazards and obstacles you might encounter during your day.
- c. The specific dimensions, options and set up. In particular, the seat height, seat depth, seat angle, back angle, size and position of the rear wheels and size and position of the front casters.

# IV. WARNINGS

## A. Signal Words

Within this manual you will find what are referred to as “Signal” words. These words are used to identify and convey the severity of varying hazards. Before using this chair you, and each person who may assist you, should read this entire manual. Please note the Signal word and consider any warnings, cautions or dangers. Make sure to follow all instructions and use your chair safely. The Signal word refers to a hazard or unsafe practice that may cause severe injury or death to you or to other persons. The “Warnings” are in two main categories, as follows:

**WARNING** – Warning indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.

**CAUTION** – Caution indicates a potentially hazardous situation which, if not avoided, could result in injury or damage to your wheelchair.

These signal words will be placed throughout the manual, where appropriate to highlight the hazardous situation. Refer to the following list for hazardous situations that will apply to the general use of this wheelchair.

## **WARNING**

**WARNING:** Failure to comply with all of the instructions in this manual or using the wheelchair in a manner not stated in this manual could result in serious injury or death.

# IV. WARNINGS

## B. General Warnings

### **WARNING**

WARNING: Do not exceed weight limit of chair:

	Standard
Ethos	275 lbs (125 kg)

Limits refer to combined weight in pounds of user and all items carried. Exceeding weight limit may damage your chair or may increase your risk of falling or tipping over. A tip-over or fall could result in serious injury or death.

- Do not use chair for weight training. The movement of the additional weight alters the chair's center of gravity increasing your risk of tipping over. A tip-over could result in damage to your chair or in serious injury or death.
- Keep tires inflated to correct tire pressure. Using a chair without properly inflated tires may affect its stability, increasing your risk of tipping over. A tip-over could result in damage to your chair or in serious injury or death to you or others. Correct tire pressure is indicated on the side wall of the tire. Your wheelchair provider can determine if your tires are inflatable if you are unsure.
- Underinflated tires may cause your wheel locks to not function properly. Failure of the wheel locks to hold your chair may result in a loss of control or fall. This can result in serious injury or death.
- Avoid ramps or slopes inclined more than 9 degrees. Steep slopes increase your risk of falling or tipping over. A tip-over or fall could result in damage to your chair or in serious injury or death to you or others. Do not use chair on ramps or slopes tilted more than 9 degrees (about 2 inches rise/drop per linear-foot): neither up/down nor across.
- Avoid inclined surfaces slick or coated with ice, oil or water. Slippery inclines could result in falling or tipping over. A tip-over or fall could result in damage to your chair or in serious injury or death.
- Avoid leaning over the side or back of your wheelchair to extend your reach. Leaning over chair could change its center of gravity and cause an unstable situation resulting in a fall or tip-over. A tip-over or fall could result in damage to your chair or in serious injury or death.
- Do not lift wheelchair by its removable parts while occupied. Lifting a wheelchair by removable parts - e.g. armrests or footrests - while occupied could cause user to fall or lose control. A fall or loss of control could result in damage to your chair or in serious injury or death.

### **CAUTION**

CAUTION: Avoid overtightening bolts and hardware that attach components to the frame. Overtightening could cause damage to the chair; affecting its durability and performance.

NOTE: If you are unsure how to properly tighten bolts or hardware, consult your authorized supplier.

## IV. WARNINGS

### C. Positioning Belts or Harnesses

#### **WARNING**

**WARNING:** Never leave a user who cannot maintain their own seated posture unattended when using positioning belts or harnesses. The user may slide down and become entangled in the belt or harness which may result in severe injury or death.

Positioning belts are designed to assist with proper positioning within the wheelchair. They are not designed as seat belts. Use positioning belts ONLY to help support the user's posture. Misuse of positioning belts may result in severe injury or death.

- Ensure the user does not slide underneath the positioning belt in the wheelchair seat. If this occurs, the user's breathing may be hampered causing death or serious injury.
- The positioning belt should have a snug fit; tight enough to hold their position, but not so tight as to restrict breathing. You should be able to slide your hand between the positioning belt and the user.
- **NEVER Use Positioning Belts:**
  - a. As a restraint. A restraint requires a doctor's order.
  - b. On a user who is unconscious.
  - c. As an occupant restraint in a motor vehicle. A positioning belt is not designed to replace a seat belt that is attached to the frame of a vehicle, which would be required of an effective seat belt. During a sudden stop, with the force of the stop, the user would be thrown forward. Wheelchair seat belts will not prevent this, and further injury may result from the belts or straps. See Transit Use (V. Set Up & Use of Your Wheelchair - Section B).

### D. Riding Your Wheelchair

Your chair is designed for use on solid, flat surfaces such as concrete, asphalt and flooring. Use caution if you push your wheelchair on a wet or slick surface.

#### **WARNING**

**WARNING:** Avoid pushing or using your chair in sand, loose soil or over rough terrain. Use over such surfaces could cause a loss of stability and result in a fall or loss of control. A fall or loss of control could result in damage to your chair or in serious injury or death.

- Avoid using your wheelchair on a public road. Use of a wheelchair on a public road could result in serious injury or death. Wheelchairs are not legal for use on public roads in most states. If you find you must use a chair on a public road, be alert to the danger of motor vehicles.
- Avoid obstacles and road hazards. Obstacles and hazards - e.g. potholes, broken pavement - could cause a fall, tip-over or loss of control. A fall, tip-over, or loss of control could result in damage to your chair or in serious injury or death.
- Do not ride your wheelchair on an escalator. Use of a wheelchair on an escalator could cause a fall, tip-over or loss of control. A fall, tip-over or loss of control could result in damage to your chair or in severe injury or death.

## IV. WARNINGS

### D. Riding Your Wheelchair (Continued)

To minimize these risks:

1. Keep a lookout for danger-scan the area well ahead of your chair as you ride.
2. Make sure the floor areas where you live and work are level and free of obstacles.
3. Remove or cover threshold strips between rooms.
4. Install a ramp at entry or exit doors. Make sure there is not a drop off at the bottom of the ramp.
5. To Help Adjust Your Center of Balance:
  - a. Lean your upper body **FORWARD** slightly as you go **UP** over an obstacle.
  - b. Press your upper body **BACKWARD** as you go **DOWN** from a higher to a lower level.
6. If your chair has anti-tip tubes, lock them in place before you go **UP** over an obstacle.
7. Keep both of your hands on the handrims as you go over an obstacle.
8. Never push or pull on an object (such as furniture or a doorjamb) to propel your chair.
9. Do not operate your wheelchair on roads, streets or highways other than marked cross walks.
10. Do not attempt to push over obstacles without assistance.

### E. Power Drives



**WARNING:** Do not attach unapproved external power drive systems to your chair. Use of an unapproved external power drive system could result in mechanical failure of the chair or cause a fall, tip-over or loss of control. A fall, tip-over or loss of control could result in damage to your chair or in severe injury or death.

Ki Mobility does not recommend the installation of power drive systems on any Ethos wheelchair. Ethos wheelchairs have not been designed or tested as power wheelchairs. If you add a power drive system to an Ethos wheelchair, be sure the manufacturer of the power drive system has validated and approved the combination of the power drive system and Ethos wheelchair as safe and effective.

### F. Ascending Stairs

**NOTE:** Have at least two people, who have sufficient strength and skill to handle the weight of the user and wheelchair, assist when trying to go up a set of stairs in this wheelchair.

- Move the wheelchair and user backwards up the stairs.
- Position one person behind the user, one person in front. The person in front must hold onto a non-removable part of the wheelchair.
- The rear attendant tilts the chair back and they both lift together. Take one step at a time.
- This may require the anti-tips be flipped up or removed. Make sure the anti-tips are reattached or flipped back down before using the wheelchair.

## IV. WARNINGS

### G. Descending Stairs

NOTE: When descending a set of stairs the user should be facing forward.

- A person behind the user, who has sufficient strength and skill to handle the weight of the user and the wheelchair, should tilt the chair backward and let the chair down the stairs one step at a time on the rear wheels.
- This may require the anti-tips be flipped up or removed. Make sure the anti-tips are reattached or flipped back down before using the wheelchair.

### H. Transfers

#### **WARNING**

**WARNING:** Be trained and assured that you can transfer on your own or have a person assist you. It is dangerous to transfer on your own. It requires good balance and agility. Be aware there is a point during every transfer when the wheelchair seat is not below you. Failure to perform a transfer properly can result in a fall that could result in severe injury or death.

A transfer requires good balance and stability. You should receive training from your therapist before attempting to do a transfer on your own.

NOTE: Before transferring out of your wheelchair every caution should be taken to reduce the gap between the two surfaces.

- Engage the wheel locks to lock the rear wheels.
- Rotate the casters forward to increase the wheelbase of the wheelchair.
- Remove or swing away the footrests.
- Have someone assist you unless you are well experienced in transfers.

### I. Your Wheelchair and the Environment

#### **CAUTION**

**CAUTION:** Exposure to water or excessive moisture may cause the metal in the wheelchair to rust or corrode and the fabric to tear. Dry your chair as soon as possible if exposed to water.

- DO NOT USE YOUR WHEELCHAIR IN A SHOWER, POOL OR BODY OF WATER. This will cause your wheelchair to rust or corrode and eventually fail.
- Do not operate your wheelchair in sand. Sand can get into the wheel bearings and moving parts. This will cause damage and eventually will cause the wheelchair to fail.
- Make sure any ramp, slope or curb cut you may attempt to ride on is compliant with ADA guidelines. Riding across, up or down any slope that is too great may cause a loss of stability.

ADA Guidelines and more information about accessible design are available at: <http://www.ada.gov/>

## IV. WARNINGS

### J. Modifying your Wheelchair

#### **CAUTION**

**CAUTION:** Your wheelchair was engineered and manufactured under strict design controls. An integral part of this process is ensuring the various components work together correctly; they have been tested to various standards to ensure quality and are approved to work together. **NO ONE SHOULD MODIFY THIS WHEELCHAIR EXCEPT BY ADJUSTING IT ACCORDING TO THIS MANUAL OR BY ADDING KI MOBILITY APPROVED OPTIONS. THERE ARE NO APPROVED OPTIONS THAT INVOLVE DRILLING OR CUTTING THE FRAME BY ANYONE OTHER THAN A TRAINED KI MOBILITY ASSOCIATE.** Contact Ki Mobility or an authorized Ki Mobility supplier before adding any accessories or components not provided by Ki Mobility.

### K. Wheelchair Stability

#### **WARNING**

**WARNING:** Assure chair is stable throughout the range of tilt angle change before using. This chair is equipped with a system to vary the tilt angle of the seat frame. Make sure the chair is stable throughout the range of tilt angle change to avoid instability and a possible tip-over. A tip-over could result in damage to your chair or in serious injury or death.

**NOTE:** Wheelchair set up should be done only by a qualified technician.

- During set up, include any accessories you use daily.
- Chair should be readjusted with changes in your weight or how you sit.
- Use anti-tips while you acclimate to changes in your chair set up.

To ensure proper stability of your wheelchair, you must make sure the center of gravity and the wheelchairs base of support is correct for your balance and abilities. Many factors can affect these two elements:

- Seat height
- Seat depth
- Back angle
- Seat angle
- Size and position of rear wheels
- Size and position of front casters
- Any seating system components

Generally, the most important factor is the position of the rear wheels for rearward stability. There are other actions than can have an adverse effect on your stability. You should consult with your wheelchair provider and clinicians familiar with your needs and capabilities in determining how this affects your use.

#### **WARNING**

**WARNING:** Take care when shifting your weight in your chair, adding weight to your chair or making changes to your chair. Changes to your Center of Gravity could change and affect the stability of your chair, which could result in a tip-over or a fall. A tip-over or fall could result in damage to your chair or in serious injury or death to you or to others. Changes to your Center of Gravity during your daily activities - such as dressing, carrying or reaching for objects, pushing up an incline - may occur many times a day. You should be aware of these activities and take precautions to minimize the risk of a fall, such as the use of anti-tips.

## IV. WARNINGS

### K. Wheelchair Stability (Continued)

#### **WARNING**

**WARNING:** Attempting a wheelie to get over a curb or obstacle is a hazardous maneuver. Do not attempt a wheelie unless you have been trained. This maneuver could lead to a fall. A fall could result in serious injury or death.

Some strategies to minimize your risk of falling

- Ensure anti-tips are in place and lean forward.
- Have an attendant behind you to provide assistance.

### L. Aftermarket Seating

#### **WARNING**

**WARNING:** The installation of a cushion on a wheelchair could affect the center of gravity of the wheelchair. Changes in your center of gravity may affect your stability in your wheelchair, resulting in tipping over or falling from your wheelchair which may result in serious injury. Always review the instructions for use of your wheelchair to see if changes to the wheelchair may be needed to provide sufficient stability after adding a cushion.

- The integrity of your skin can be affected by many aspects of your daily life and medical condition, including the use of this product. Be sure to follow any skin care regimens established by your clinician. Consumers of this product should make sure their skin is inspected routinely for changes as directed by their clinician. Failure to do so could result in serious injury or death.

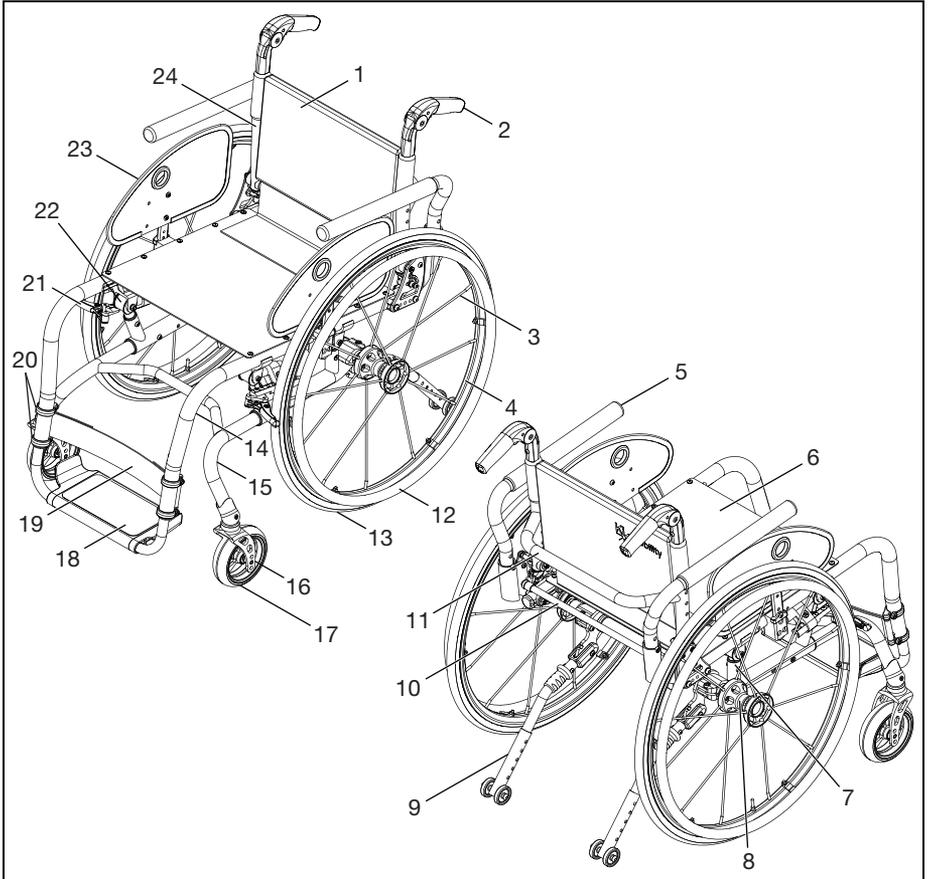
#### Selecting the Proper Seating Product

Ki Mobility recommends that you consult with a licensed clinician (i.e. Physician or therapist) trained in wheelchair seating and positioning before selecting any seating and positioning product. This will help ensure you receive the right product for your specific needs.

# V. SET UP & USE OF YOUR WHEELCHAIR

## A. Your Ethos & It's Parts

1. Inspect and maintain this chair. See Maintenance on page 28.
2. If you detect a problem, contact your authorized supplier immediately.
3. Have a complete inspection, safety check and service of your chair performed by an authorized supplier annually.



- |                        |  |  |
|------------------------|--|--|
| 1. Backrest Upholstery | 9. Anti-Tip  | 17. Caster Wheel                       |
| 2. Push Handle         | 10. Release Bar  | 18. Footplate                          |
| 3. Spoke               | 11. Rigidizer Bar  | 19. Calf Strap                         |
| 4. Wheel Rim           | 12. Handrim  | 20. Calf Strap Mount                   |
| 5. Armrest             | 13. Wheel  | 21. Wheel Lock                         |
| 6. Seat Upholstery     | 14. Seat Frame   | 22. Intelligent Elastomer System (IES) |
| 7. ISO Tower           | 15. Base Frame (Comprised of rear and front base frames) | 23. Side Guard                         |
| 8. Rear Wheel Hub      | 16. Caster Fork  | 24. Backrest Tube                      |

# V. SET UP & USE OF YOUR WHEELCHAIR

## B. Transit Use

### **WARNING**

**WARNING:** Never use this wheelchair as a seat in a motor vehicle unless it has been equipped with the Transit Option. It is always safest to transfer out of your wheelchair onto a seat in a motor vehicle with appropriate seat and shoulder belts. Using this wheelchair as a seat in a motor vehicle, if not equipped with the transit option, could result in serious injury or death.

The wheelchair equipped with the Transit Option has been tested to and passed the RESNA WC-4:2012, Section 19: Wheelchairs used as seats in motor vehicles and ISO 7176-19:2008 Wheelchairs -- Part 19: Wheeled mobility devices for use as seats in motor vehicles. RESNA and ISO standards are designed to test the structural integrity of the wheelchair as a seat for use in a motor vehicle. These standards are also designed to create compatibility with Wheelchair Tie-down and Occupant Restraint Systems (WTORS).

Not all configurations of the Ethos wheelchairs are compatible with the Transit Option. Ki Mobility manages the configuration and does not offer the Ethos wheelchair except in compatible configurations. If you make changes to your Ethos wheelchair after you receive it, you should contact your wheelchair provider or Ki Mobility to make sure it is appropriate to continue to use your wheelchair as a seat in a motor vehicle.

Aftermarket seating may have replaced the original equipment seat and back support designed and tested as part of the Transit Option. Your wheelchair provider should tell you if the seating they provided is original equipment or replacement aftermarket seating. A complete system of wheelchair frame, seating, Wheelchair Tie-down and Occupant Restraint Systems and a properly equipped motor vehicle, that have all complied with the standards mentioned in this section, should be in place before using an Ethos wheelchair equipped with the Transit Option as a seat in a motor vehicle.

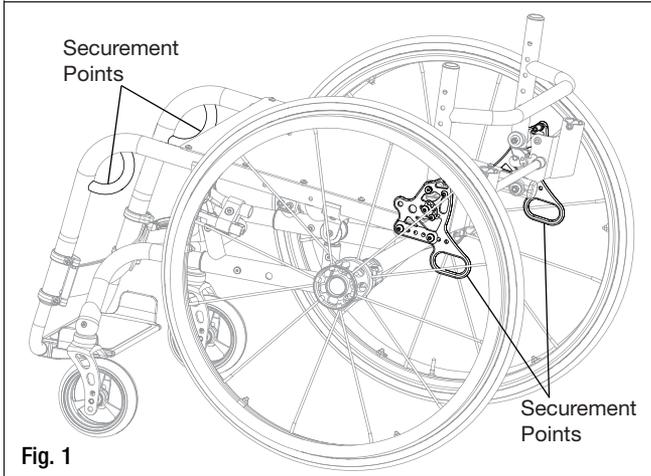
When using your wheelchair as a seat in a motor vehicle you should always observe the following instructions:

- The rider must be in a forward-facing position.
- The rider and all items carried must not weigh more than 275 lbs (125 kg).
- Backpacks and pouches should be removed and secured separately in the motor vehicle. In the event of an accident these items can become dangerous projectiles, which may injure or kill you or other occupants of the motor vehicle.
- The rider must use a Wheelchair Tie-down and Occupant Restraint System that complies with RESNA WC-4:2012, Section 18: Wheelchair tie-down and occupant restraint systems for use in motor vehicles or ISO 10542-1:2012 Technical systems and aids for disabled or handicapped persons -- Wheelchair tie-down and occupant-restraint systems -- Part 1: Requirements and test methods for all systems.

# V. SET UP & USE OF YOUR WHEELCHAIR

## B. Transit Use (Continued)

- Attach wheelchair tie-downs to the four securement points (two front, two rear) on the Ethos wheelchair with the Transit Option (Fig. 1) in accordance with the wheelchair tie-down manufacturer's instructions and RESNA WC-4:2012, Section 18 or ISO 10542-1:2012 - Part 1.



- Attach occupant restraints in accordance with the occupant restraint manufacturer's instructions and RESNA WC-4:2012, Section 18 or ISO 10542-1:2012, Part 1.
- Use of lap belts, chest straps, shoulder harnesses, any other positioning strap system or positioning accessory should not be used, or relied on as an occupant restraint, unless it is marked as such by the manufacturer in accordance with RESNA WC-4:2012, Section 18 or ISO 10542-1:2012, Part 1.
- Use of headrests, lateral supports or other positioning accessories should not be used, or relied on as an occupant restraint, unless it is marked as such by the manufacturer in accordance with RESNA WC-4:2012, Section 18 or ISO 10542-1:2012, Part 1 or RESNA WC-4:2012, Section 20: Wheelchair seating systems for use in motor vehicles or ISO 16840-4:2009 Wheelchair seating -- Part 4: Seating systems for use in motor vehicles.
- After being fitted and adjusted, the top of the original equipment back upholstery should be within 4 inches (10.16 cm) of the top of your shoulder.
- Any aftermarket seating should be tested to comply with RESNA WC-4:2012, Section 20 or ISO 16840-4:2009 - Part 4.
- Attach the seating to the wheelchair frame in accordance with the seating manufacturer's instructions and RESNA WC-4:2012, Section 20 or ISO 16840-4:2009 - Part 4.
- Aftermarket accessories such as trays, oxygen tank holders, oxygen tanks, IV poles, back packs, pouches and items not manufactured by Ki Mobility should be removed and secured separately in the motor vehicle. In the event of an accident, these items can become dangerous projectiles which may injure or kill you or other occupants of the motor vehicle.
- If the wheelchair has been involved in an accident, you should not continue to use it, as it may have suffered fatigue that may not be visible.

# V. SET UP & USE OF YOUR WHEELCHAIR

## B. Transit Use (Continued)

### **WARNING**

**WARNING:** Remove and secure any items temporarily attached to the chair while in a motor vehicle. Leaving items attached to the vent tray, battery tray or oxygen tank holder and not securing them properly and separately in a motor vehicle could result in these items becoming dangerous projectiles in the event of an accident. Additionally, oxygen tanks contain a highly pressurized gas that vigorously accelerates combustion.

- When using this wheelchair as a seat in a motor vehicle, you must remove any items attached to the vent tray, battery tray or oxygen tank holder and properly secure them separately.
- If the chair is equipped with an oxygen tank holder never use the wheelchair as a seat in a motor vehicle.

**NOTE:** To obtain copies of RESNA or ISO standards please contact the standards organizations below:

#### RESNA

1700 N Moore St Ste 1540  
Arlington, VA 22209  
Phone: 703-524-6686  
Fax: 703-524-6630  
Email: [technicalstandards@resna.org](mailto:technicalstandards@resna.org)

ANSI/RESNA Standards:

#### RESNA WC-4:2012, Section 18:

Wheelchair tie-down and occupant restraint systems for use in motor vehicles.

#### RESNA WC-4:2012, Section 19:

Wheelchairs used as seats in motor vehicles.

#### RESNA WC-4:2012, Section 20:

Wheelchair seating systems for use in motor vehicles.

International Organization for Standardization (ISO)

BIBC II  
Chemin de Blandonnet 8  
CP 401  
1214 Vernier, Geneva  
Switzerland  
Phone: +41 22 749 01 11  
Fax: +41 22 733 34 30  
Email: [central@iso.org](mailto:central@iso.org)

ISO Standards:

#### ISO 10542-1:2012 Technical systems and aids for disabled or handicapped persons -- Wheelchair tie-down and occupant-restraint systems -- Part 1:

Requirements and test methods for all systems.

#### ISO 16840-4:2009 Wheelchair seating – Part 4:

Seating systems for use in motor vehicles.

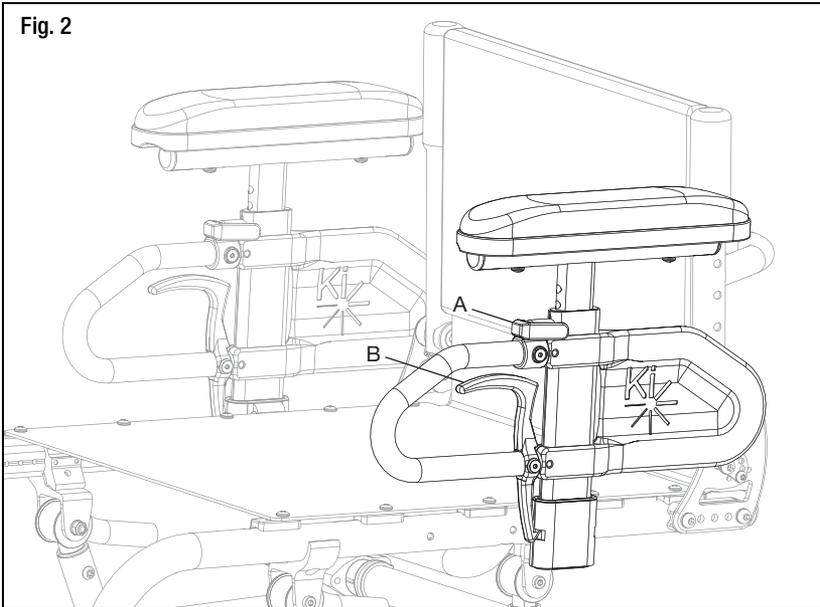
#### ISO 7176-19:2008 Wheelchairs – Part 19:

Wheeled mobility devices for use as seats in motor vehicles.

# V. SET UP & USE OF YOUR WHEELCHAIR

## C. Height Adjustable T-Arm

1. Installation
  - a. Slide the outer arm post into the receiver mounted to the wheelchair frame.
  - b. The armrest will automatically lock into place. Check to make sure the locking lever is as shown (Fig. 2:B).
2. Height Adjustment
  - a. Rotate release lever (Fig. 2:A).
  - b. Slide armrest pad up or down to desired height.
  - c. Return lever to locked position against arm post.
  - d. Push arm pad until upper arm locks firmly into place. Check to make sure the locking lever is as shown (Fig. 2:A).
3. Removing Armrest
  - a. Squeeze release lever (Fig. 2:B) and remove the armrest.



# V. SET UP & USE OF YOUR WHEELCHAIR

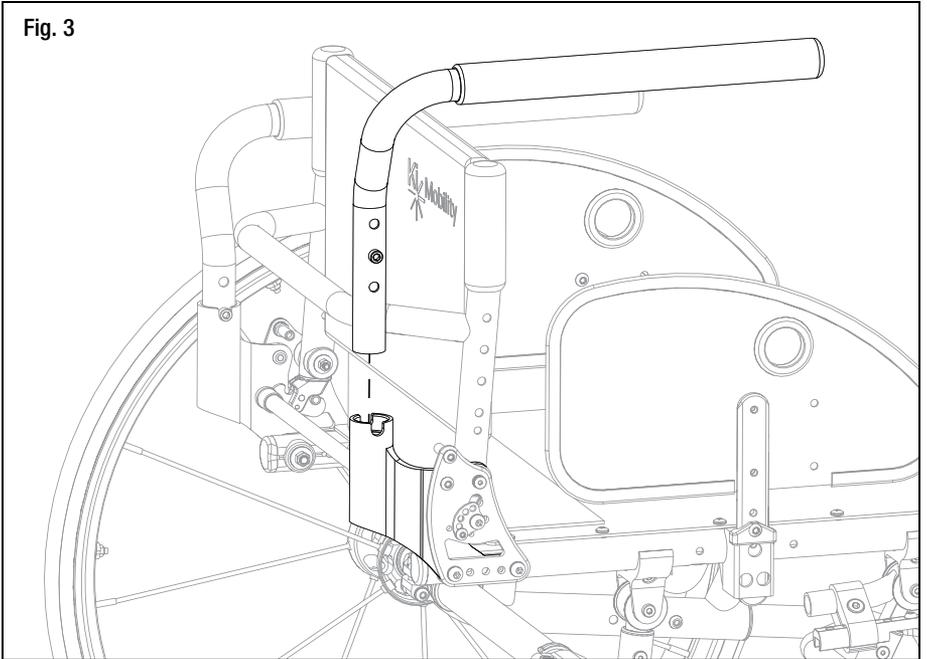
## D. Swing Away Armrests

### **⚠ WARNING ⚠**

WARNING: These arms offer only a lock against rotation and are designed to bear a downward force only. They will remove completely if pulled up on and cannot be used to lift or otherwise handle the chair. Failure to comply with the instructions above may result in the armrest accidentally disconnecting from the wheelchair and result in a fall or loss of control and may cause serious injury or death.

1. Installation (Fig. 3)
  - a. Slide armrest into the tube of the receiver that is mounted on rear side of frame.
2. Swinging Away
  - a. Lift armrest slightly so it is free of the receiver bolt. Rotate away from the chair.
3. Removing Armrest
  - a. Lift armrest straight out of receiver.

Fig. 3



# V. SET UP & USE OF YOUR WHEELCHAIR

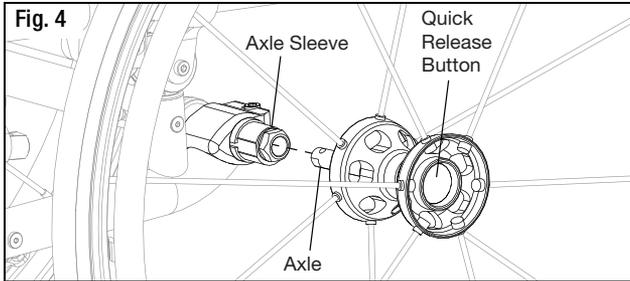
## E. Rear Wheels

### ⚠ WARNING ⚠

**WARNING:** Before operating chair, assure the push button is completely extended and locking balls on the inside are fully engaged. Failure to do so may result in the wheel falling off, which could cause a fall or tip-over. A fall or tip-over could result in serious injury or death to you or others.

#### 1. Installing Wheels (Fig. 4)

- Push in the quick release button on the axle to allow the locking balls to retract. Make note of the difference between the extended and depressed position of the axle release button and its effect on the locking balls on the other end of the axle.
- Insert the axle into the bearing housing on the wheel if it's separate.
- Push on quick release button again and slide axle into axle sleeve.
- Release the button to lock axle in sleeve. If release button does not fully extend and the locking balls do not move into the locked position after releasing the button, the axle length needs to be adjusted.



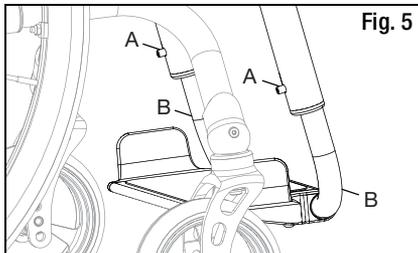
#### 2. Removing Wheels

- Hold the wheel close to the hub and push in the button on the outside end of the axle.
- While still holding the button, pull the wheel and axle out of the axle sleeve.

## F. Adjusting the Footrest

Height adjustment of your footrest

- Locate the set screw on each side of the frame (Fig. 5:A).
- Loosen the set screw on each side of the frame using a M3 Allen wrench. Do not remove.
- Adjust footrest tube up or down to achieve the desired height (Fig. 5:B).
- Ensure both sides are adjusted equally and retighten each set screw to 40 in./lbs (4.52 N\*m).

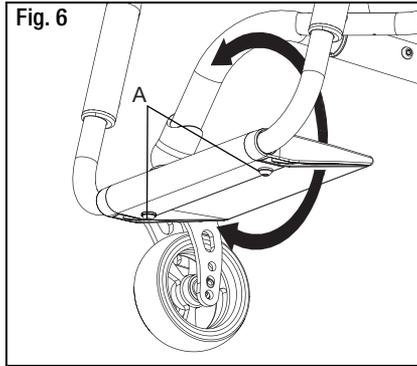


# V. SET UP & USE OF YOUR WHEELCHAIR

## G. Optional Dynamic Footplate

Angle adjustment of your footrest

1. Loosen the two screws (Fig. 6:A) on the bottom of the footrest using a 4mm Allen wrench.
2. Rotate footrest to desired angle and secure in place by retightening the two screws.



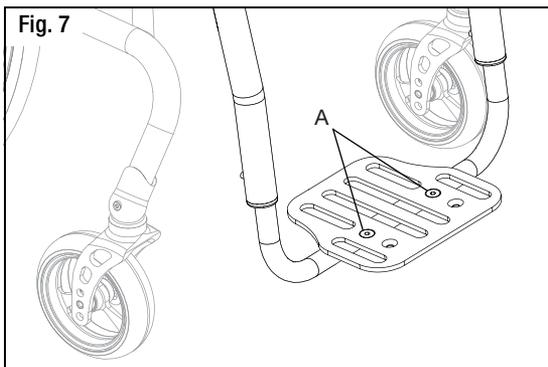
## H. Optional Angle Adjustable Footplate

To adjust the angle of the optional angle adjustable footplates:

1. Loosen but do not remove, the two M6 screws (Fig. 7:A) securing the footplate to the footplate clamp with a 4mm Allen wrench.
2. Once loose, the footplate will easily rotate around the footrest extension tube.
3. Select the desired position and retighten the two M6 screws (Fig. 7:A) to 80 in./lbs (9.04 N\*m).

Changing position of the optional aluminum flip-up footplate:

1. Remove both M6 screws from the footplate. There are M6 nylock nuts recessed on the underside of the clamp. Be sure to prevent these from falling as you loosen the screws.
2. Relocate the footplate once the screws are loose by rotating either forward or rearward, depending on desired angle. Once position is achieved, reinsert the screws into the appropriate holes.
3. Fit the nuts into the slot underneath the clamp and tighten the screws securely.

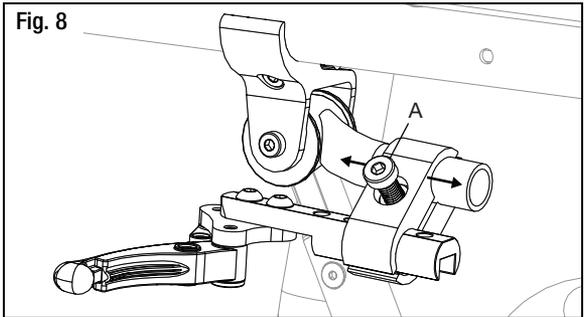


# V. SET UP & USE OF YOUR WHEELCHAIR

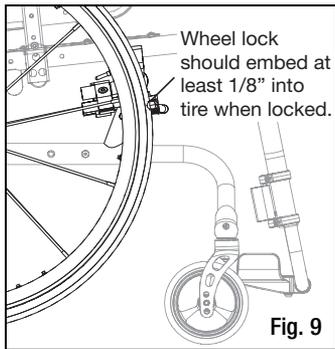
## I. Wheel Locks

### 1. Adjusting Wheel Locks

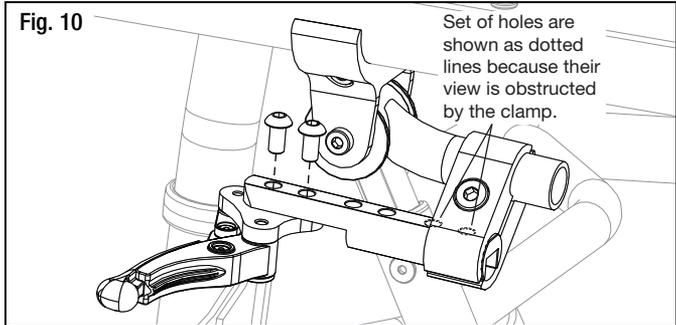
- a. Use a 6mm Allen wrench to loosen the clamp bolt (Fig. 8:A).
- b. Slide the wheel lock assembly forward or backward along the lock mount tube.
- c. Retighten clamp bolt when in correct position using a 6mm Allen wrench.



- d. Always test new wheel lock positioning before use. Wheel lock should embed approximately 1/8" into tire when engaged or in lock position. See Fig. 9.



NOTE: The wheel lock arm can be moved along the different sets of holes on the wheel lock bar. Use a 4mm Allen wrench to remove the two bolts, move to new position and reinstall bolts. See Fig. 10.



# V. SET UP & USE OF YOUR WHEELCHAIR

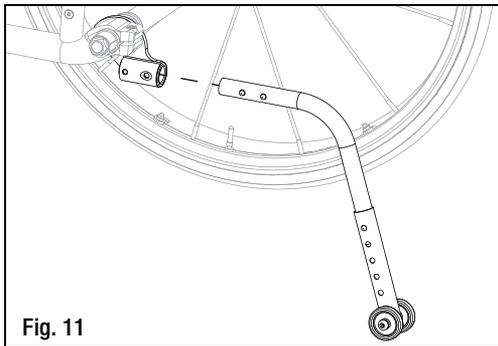
## J. Anti-Tips

Anti-tip tubes help prevent your wheelchair from tipping over backwards. When adjusted properly, they provide a significant increase in rearward stability. Your stability can be affected by traversing uneven ground, a ramp, slope or other surface that changes your relationship to gravity. Your stability can also be affected by other forces acting on you and your wheelchair, such as someone pushing down or leaning on your push handles or other parts of your chair. This can happen to even the most experienced wheelchair user. People in your environment do not necessarily understand they are impacting your stability.

### Standard Anti-Tip

#### 1. Installing Standard Anti-Tips (Fig. 11)

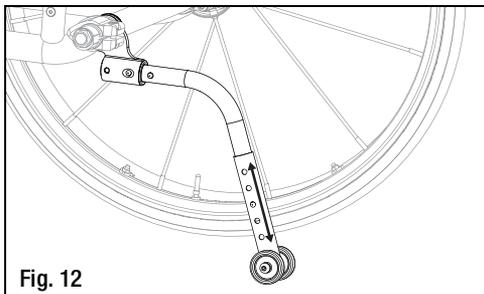
- a. Press the rear anti-tip release pin on the anti-tip tube so both release pins are drawn inside.
- b. Insert the anti-tip tube into receiver mounted on the camber tube.
- c. Turn the anti-tip tube down until release pin is positioned through the receiver mounting hole.
- d. Insert the second anti-tip tube the same way.



#### 2. Adjusting Height of Wheel Extension (Fig. 12)

The anti-tip tube wheels may have to be raised or lowered to achieve proper clearance of 1 1/2" to 2" (3.81 to 5.08 cm).

- a. Press the anti-tip wheel release pin so the release pin is drawn inside.
- b. Raise or lower to any of the predrilled holes.
- c. Release pin.
- d. Adjust the second anti-tip tube wheel the same way. Both wheels should be at exactly the same height.



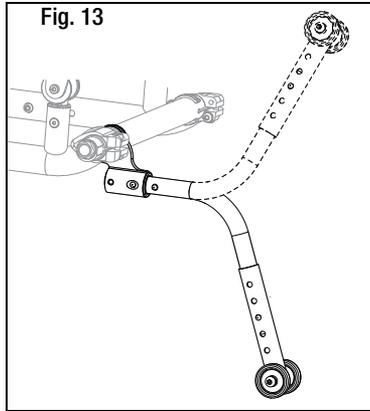
# V. SET UP & USE OF YOUR WHEELCHAIR

## J. Anti-Tips (Continued)

### 3. Turning Anti-Tip Tubes Up (Fig. 13)

Turn anti-tip tubes up when being pushed by an attendant, overcoming obstacles or climbing curbs.

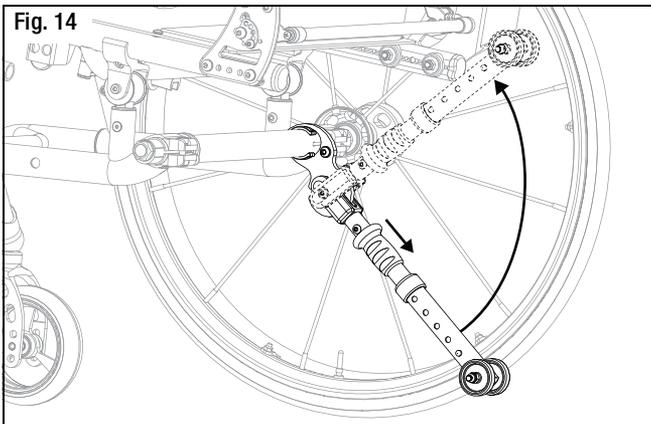
- a. Press the rear anti-tip tube release pin.
- b. Hold pin in and turn anti-tip tube up.
- c. Release pin.
- d. Repeat with second anti-tip tube.
- e. Remember to return anti-tip tubes to down position after completing maneuver.



### User Activated Anti-Tip

#### 1. Turning Anti-Tip Tubes Up (Fig. 14)

- a. Press the anti-tip wheel release pin so the release pin is drawn inside.
- b. Raise or lower to any of the predrilled holes.
- c. Release pin.
- d. Adjust the second anti-tip tube wheel the same way. Both wheels should be at exactly the same height.



# V. SET UP & USE OF YOUR WHEELCHAIR

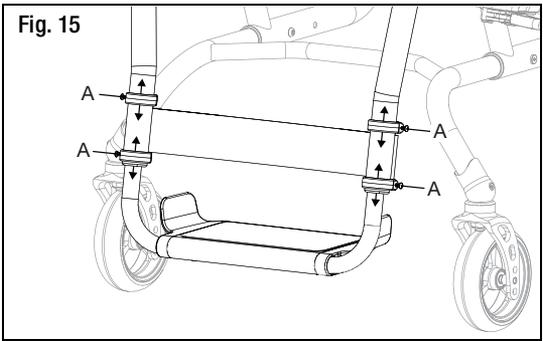
## K. Upholstery Fabric

1. You must immediately replace seat and back upholstery that has worn through and shows signs of failing. If you fail to do so, the seat or back may fail.
2. The seat sling material will weaken over time. Look for fraying, thin spots or stretching of fabrics especially at edges and seams. This should be done weekly.
3. The repeated action of transferring to your wheelchair will weaken sling material and result in the need to inspect and replace the seat more often.
4. Be aware that laundering or excess moisture will reduce flame retardation of the fabric.
5. Contact your wheelchair provider if you have concerns about your seat or back, or feel it needs to be replaced.

## L. Calf Strap Mount

### Adjusting Height of the Calf Strap Mount

1. Loosen the four screws (Fig. 15:A) on the calf strap mount with a Philips screwdriver.
2. Move the calf strap mount up or down to desired height and secure in place by retightening the four screws (Fig. 15:A) with a Philips screwdriver.

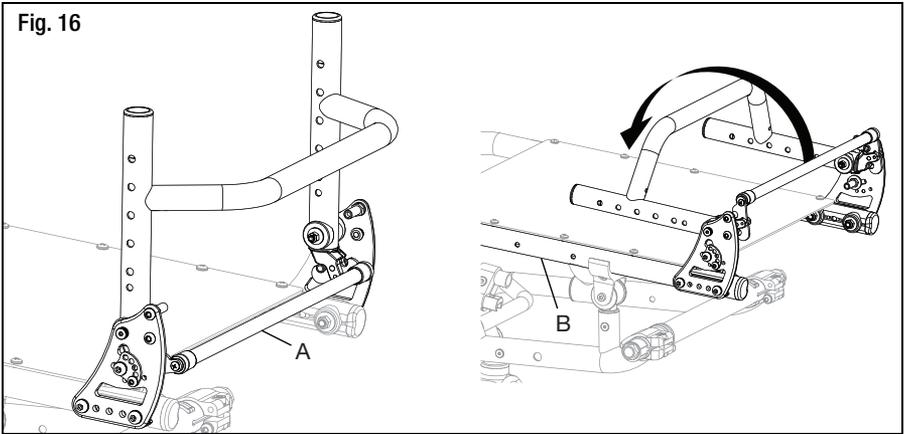


# V. SET UP & USE OF YOUR WHEELCHAIR

## M. Backrest

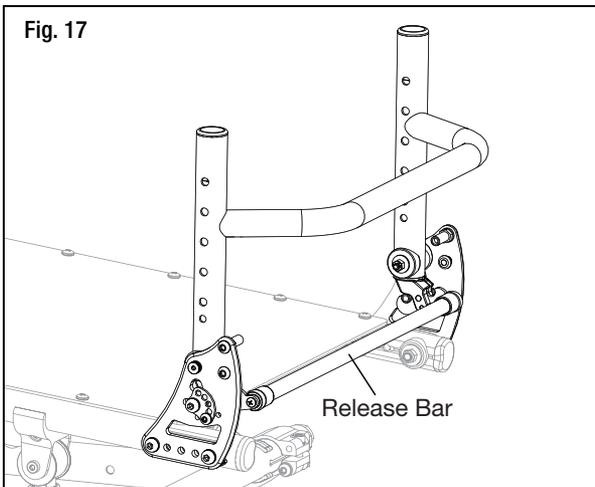
### 1. Folding Backrest

- a. Lift the back release bar (Fig. 16:A), located behind the back frame, to release the latch and fold downwards towards the seat frame (Frame 16:B). To latch back into place, pull the back release bar outward and the back will release and can be pushed into the upright position. The backrest will automatically latch onto the side frame.
- b. Ensure a solid engagement onto the latches by pulling back on the backrest frame into the upright position.



### 2. Relaxed Position (Fig. 17)

The Ethos backrest will also open into an extended position. Lean forward slightly to take the load off the latching pins and then pull up on the release bar and lean back into the relaxed position. Lock the back by pulling back tubes forward until the back locks with a click.



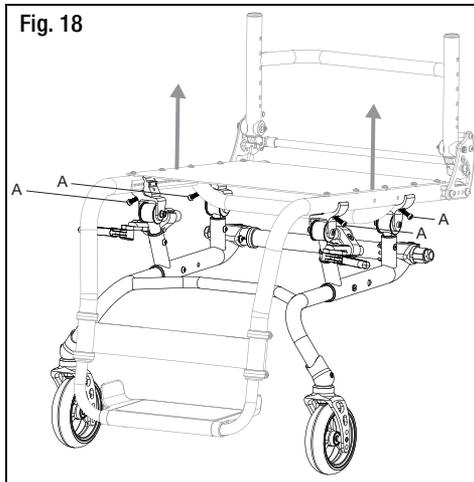
# V. SET UP & USE OF YOUR WHEELCHAIR

## N. Changing Elastomers

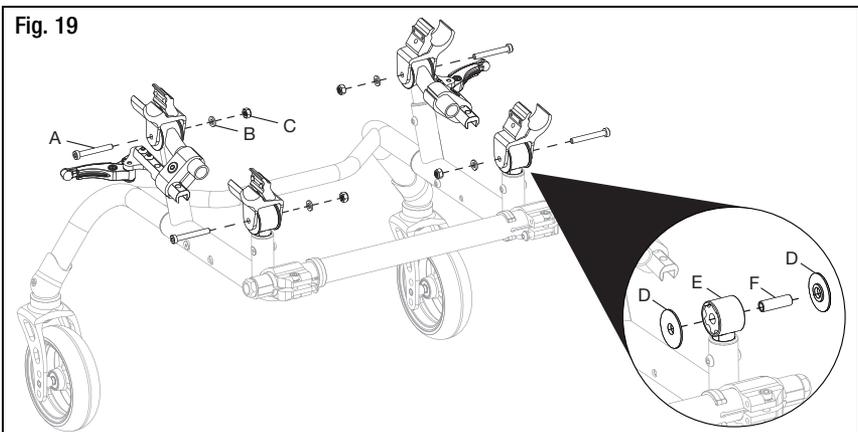
Included with your chair are elastomers in different densities from what was configured on chair at time of order. These have been provided to allow the ride experience to be optimized based on rider preference. For additional information on elastomer selection and tailoring your ride experience, please visit the Ethos product page at [www.kimobility.com](http://www.kimobility.com).

Elastomers can be changed or reconfigured. Follow the instructions below to complete this procedure. A chart is included in these instructions to help guide the user to the correct elastomers for their needs.

1. Loosen the four seat frame clamp bolts (Fig. 18:A) with a 5mm Allen wrench until the seat frame can be removed from the base frame.



2. Remove the seat frame clamps by removing bolt (Fig. 19:A), washer (Fig. 19:B) and nut (Fig. 19:C) from each clamp using a 4mm Allen wrench and a 10mm wrench. When the clamps come off, remove the two washers (Fig. 19:D) and insert (Fig. 19:F) on the elastomer (Fig. 19:E).

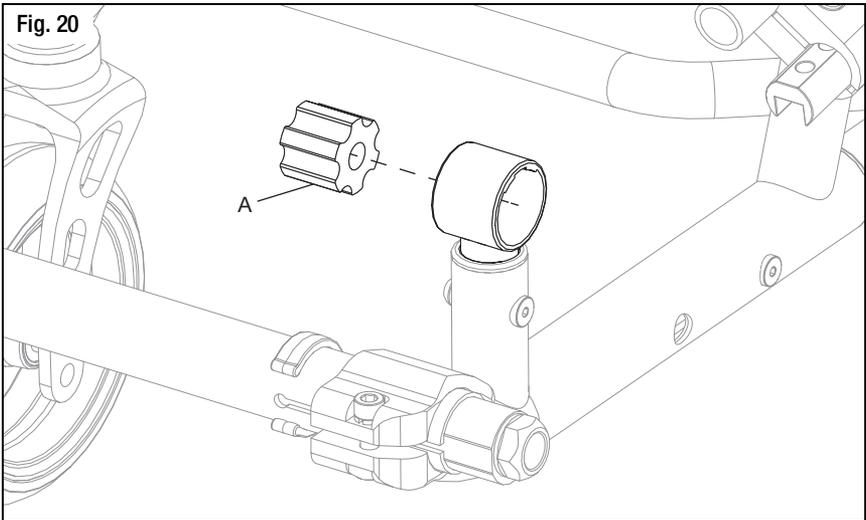


# V. SET UP & USE OF YOUR WHEELCHAIR

## N. Changing Elastomers (Continued)

- Push the elastomers (Fig. 20:A) that you are replacing, out of the tower and push in new elastomers. Ensure edges of elastomer line up with the groove inside the tower. See the chart below to help determine which elastomers suit the type of ride you desire, standard or firm, based on the user weight and the chair center of gravity. The elastomer part number and color are called out in the chart. See Fig. 20 for illustration.

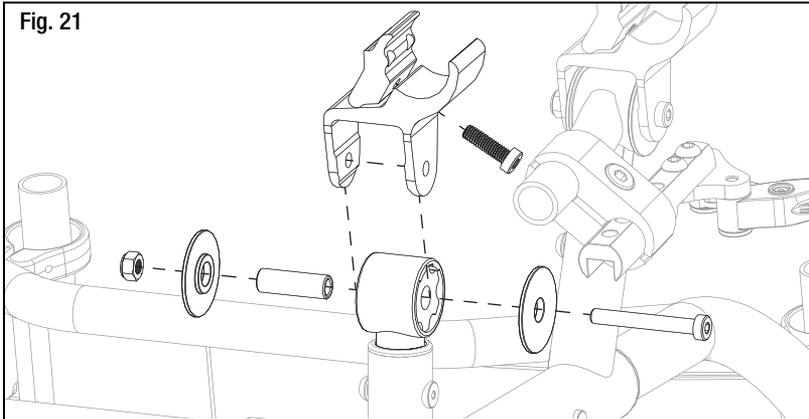
<b>Standard Setup</b>				
User Weight	Center of Gravity			
	-1.5 to 1	1.25 to 2	2.25 to 3	3.25 to 4.25
100-120 lb (45-54 kg)	003860 (BLUE)	003860 (BLUE)	003859 (RED)	003859 (RED)
121-165 lb (55-75 kg)	004544 (BLACK)	004544 (BLACK)	003860 (BLUE)	003860 (BLUE)
166-209 lb (75-95 kg)	004545 (GREEN)	004545 (GREEN)	004544 (BLACK)	004544 (BLACK)
210-275 lb (95-125 kg)	004545 (GREEN)	004545 (GREEN)	004544 (BLACK)	004544 (BLACK)
<b>Firm Setup</b>				
User Weight	Center of Gravity			
	-1.5 to 1	1.25 to 2	2.25 to 3	3.25 to 4.25
100-120 lb (45-54 kg)	004544 (BLACK)	004544 (BLACK)	003860 (BLUE)	003860 (BLUE)
121-165 lb (55-75 kg)	004545 (GREEN)	004545 (GREEN)	004544 (BLACK)	004544 (BLACK)
166-209 lb (75-95 kg)	004545 (GREEN)	004545 (GREEN)	004545 (GREEN)	004545 (GREEN)
210-275 lb (95-125 kg)	004545 (GREEN)	004545 (GREEN)	004545 (GREEN)	004545 (GREEN)



# V. SET UP & USE OF YOUR WHEELCHAIR

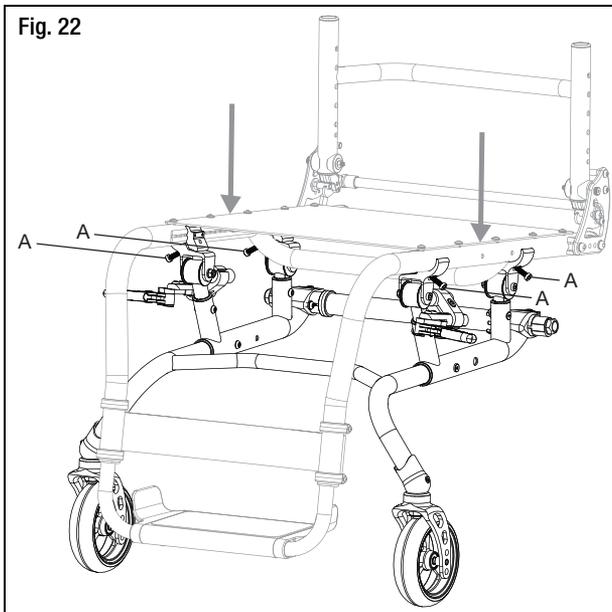
## N. Changing Elastomers (Continued)

4. Reinstall seat frame clamp with bolt, two washers, insert and nut using a 4mm Allen wrench and a 10mm wrench. Install bolt back into the seat frame clamp top and leave loose so seat frame can still be installed. Repeat on other replaced elastomers. See Fig. 21.



5. Set seat frame assembly onto the seat frame clamps, adjust to the desired seat depth and secure in place by tightening the four seat frame clamp bolts (Fig .22:A) with a 4mm Allen wrench. Ensure detents on clamps align with the indents on the frame as you tighten.

NOTE: Ensure seat frame is correctly aligned and secured before user is seated.



# V. SET UP & USE OF YOUR WHEELCHAIR

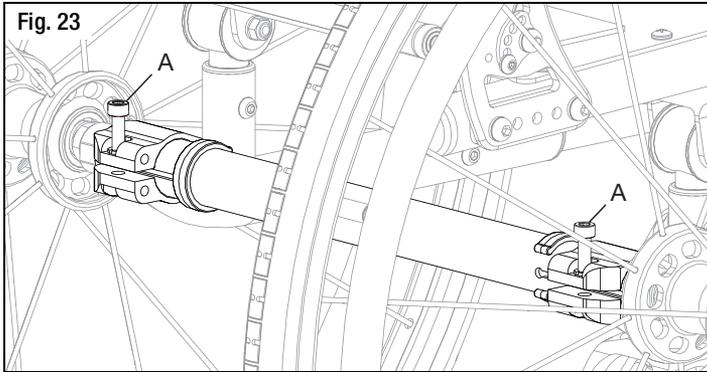
## O. Setting Toe to Zero

NOTE: A wheelchair equipped with 0° camber plugs cannot have a toe-in toe-out condition. This adjustment is only required when using 2°, 4°, 6° and 8° camber adapters.

Toe refers to how well the rear wheels of the chair are aligned relative to the ground. It affects how well the chair will roll. Drag or rolling resistance is optimally minimized when the wheel toe is set to zero.

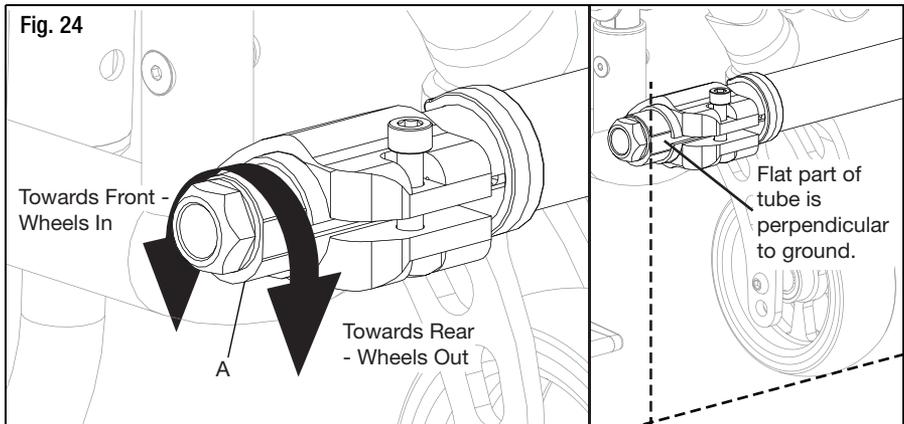
To Set Toe to Zero:

1. Loosen the two bolts (Fig. 23:A) on the camber clamp using a 5mm Allen wrench. If loosened too much, be sure to watch for the square nut in case it drops out.



2. Remove wheels.
3. Rotate the camber tube (Fig. 24:A). Rotating towards the front of the chair changes the angle of the wheels in and rotating towards the rear of the chair changes the angle of the wheels out.

NOTE: The flat sides of the camber tube should be perpendicular to the ground. See Fig. 24.



4. Reinstall wheels. Ensure camber tube is still set in the same position on the left and right side and retighten the two bolts on the camber clamp.

# V. SET UP & USE OF YOUR WHEELCHAIR

## P. Cushion Installation

- a. The Ethos was designed to be used with a proper wheelchair cushion.

### **WARNING**

WARNING: Avoid sitting for long periods of time without a proper wheelchair cushion. Sitting for long periods of time without a proper wheelchair cushion could cause pressure ulcers which could lead to serious infections or even death.

### **WARNING**

WARNING: Secure cushion before use or transfer. Failure to secure a cushion can cause it to slide out during use or transfers, resulting in a fall or loss of control. A fall or loss of control could result in damage to your chair or in serious injury or death to you or others.

- b. The standard sling upholstery is provided with loop Velcro type fastener strips. The cushion being used should have hook Velcro type fasteners that can engage the loop of the seat sling to keep the cushion from sliding out from under you. Ensure the cushion is securely attached before transferring or sitting in the wheelchair.
- c. A standard seat sling may not have been provided with your chair. Check with your wheelchair provider if an aftermarket replacement to the original equipment sling has been provided. If so, make sure you follow the instructions for use provided by the aftermarket manufacturer.

# VI. MAINTENANCE

## A. Inspecting Your Wheelchair

Regular and routine maintenance will extend the life of your wheelchair while improving its performance. Wheelchair repairs and the replacement of parts should be done by a qualified technician of an authorized Ki Mobility supplier.

### 1. General Inspections:

- a. Clean your chair at least once per month. You may need to clean your chair more frequently if you operate it in dirty environments, such as a worksite.
- b. Check to be sure that all fasteners are tight. Unless otherwise noted, fasteners should be tightened to 40 in./lbs (4.51 N\*m).



**CAUTION:** Replace worn tires. Wheel locks may not grip properly on smooth, worn tires, which may allow unintended movement of the chair when on a slope.

- c. Check tires and casters:
  - Check the tire for tread wear. Replace the tires if they have flat spots, visible cracks or if the tread is worn off.
  - If you have inflatable tires with a valve stem, check the pressure and set to the pressure listed on the tire sidewall.
- d. Check spoke wheels for loose spokes.
- e. Check your wheel locks. As tires wear the wheel locks should be adjusted. See Section I. Wheel Locks.

# VI. MAINTENANCE

## B. Routine Maintenance

### 1. Weekly:

- a. Check wheel locks to be sure they are adjusted correctly.
- b. Check axle sleeves to ensure the axle sleeve nuts are tight.
- c. Check for broken, bent or loose spokes.
- d. Check that casters spin freely.
- e. Inspect tires and casters for wear spots.
- f. Check pneumatic tires for proper inflation.
- g. Ensure hand grips do not rotate or pull off.

### 2. Monthly:

- a. Inspect rear wheel axles and tighten if necessary.
- b. Inspect caster housing bearings for hair build up and remove if necessary.
- c. Inspect wheel locks to be sure assembly is tight. Make sure wheel locks properly engage the tires.
- d. Check that all fasteners are tight and secure.
- e. Inspect frame for any deformities, defects, cracks, dimples or bends. These could be signs of fatigue in the frame which could result in a failure of the chair. Discontinue use of the wheelchair immediately and contact your authorized Ki Mobility dealer.

### 3. Annually:

- a. Have wheelchair checked and adjusted by a qualified technician.



CAUTION: Before using chair after adjustments are made, ensure all fasteners are tight and secure.



CAUTION: Do not overtighten fasteners as this could damage the frame.

# VI. MAINTENANCE

## C. Cleaning

1. Axles and Wheels:
  - a. Clean around the axles and wheels WEEKLY with a damp rag.
  - b. Hair and lint will lodge in the caster housing. Disassemble the caster housing every six months to remove entangled hair.

NOTE: Do not use WD-40 or any other penetrating oil on this wheelchair. This will destroy the sealed bearings.

NOTE: Do not use any chemical cleaning agents on casters or tires.

## D. Storage

1. When not in use, keep your chair in a clean, dry area. Failure to do so may result in your chair rusting and/or corroding.
2. If your chair has been in storage for more than a few weeks you should make sure it is working properly. You should inspect and service, if necessary, all items in Section A. Inspecting Your Wheelchair.
3. If your chair has been in storage for more than two months, it should be serviced and inspected by your authorized supplier before you use it.

# VII. WARRANTY

Ki Mobility warrants the frame and quick-release axles of this wheelchair against defects in materials and workmanship for the life of the original purchaser. All other Ki Mobility-made parts and components of this wheelchair are warranted against defects in materials and workmanship for one year from the date of first consumer purchase.

## Limitations to the Warranty

1. **We do not warrant:**
  - a. Wear items: Upholstery, tires, armrest pads, tubes, armrests and push-handle grips.
  - b. Damage resulting from neglect, misuse or from improper installation or repair.
  - c. Damage from exceeding weight limit.
2. **This warranty is VOID if the original chair serial number tag is removed or altered.**
3. **This warranty is VOID if the original chair has been modified from its original condition and it is determined the modification resulted in failure.**
4. **This warranty applies in the USA only. Check with your supplier to find out if international warranties apply.**

## Ki Mobility's Responsibility

Ki Mobility's only liability is to replace or repair, at our discretion, the covered parts. There are no other remedies, expressed or implied.

## Your Responsibility

- a. Notify Ki Mobility, via an authorized supplier, prior to the end of the warranty period and get a return authorization (RA) for the return or repair of the covered parts.
- b. Have the supplier send the authorized return, freight pre-paid, to:  
Ki Mobility
- c. Pay any charges for labor to repair or install parts.



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