

T-5™ 7000 Series Tennis



Pro™ Tennis



Pro-2™ All Sport



Schulte 7000 Series BB
Basketball



Pro™ BB Basketball



Top End® Sports Series

T-5™ 7000 Series Tennis Chair, Pro™ Tennis, Schulte
7000 Series BB Chair, Pro™ BB Basketball, Pro-2™ All
Sport

Wheelchair User Manual

This manual **MUST** be given to the user of the product.
BEFORE using this product, read this manual and save for future reference.

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Please record your serial number SN#

The SN is required for any warranty claims and placing aftermarket parts orders.



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I General

I.1 Information about the User Manual

Thank you for choosing a Top End® wheelchair.

This User Manual contains important information about using the wheelchair. In order to ensure safety when using your wheelchair, read the User Manual carefully and follow the safety information.

If your vision is impaired, you can view the user manual as a PDF file on the Internet at www.topendchair.com and enlarge it on-screen as required.

If you cannot enlarge the texts and graphics sufficiently, please contact the Top End® distributor for your country, addresses on the reverse of this document. If necessary, we will provide you with a high-resolution PDF file of the user manual. Moreover, you can have the PDF file read out to you with the aid of suitable programs using special language functions on your computer (e.g., in Adobe®Reader®X: Shift+Ctrl+Y).

The equipment of your wheelchair may differ from the descriptions and diagrams given here due to the wide range of models available.

If you need additional information, please refer to our website at www.topendsportslc.com.

I.2 Symbols

Warnings

Signal words are used in this manual and apply to hazards or unsafe practices which could result in personal injury or property damage. See the information below for definitions of the signal words.



WARNING!

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



CAUTION!

– Caution indicates a potentially hazardous situation which, if not avoided, may result in property damage or minor injury or both



IMPORTANT

– Indicates a hazardous situation that could result in damage to property if it is not avoided.



Gives useful tips, recommendations and information for efficient, trouble-free use.

1.3 Intended Use

The sports wheelchair is to be used solely as a transportation device only for participating in a sports activity to assist the participant in playing the sport through self- propelling the wheelchair on the surface used. The sport chair allows the participant to engage in the sport through manual movement of the wheelchair under their own power. This wheelchair is intended for sports activities only on courts or designated playing surfaces and not intended for a daily use wheelchair or treatment of any medical condition but for recreational purposes only. Any other use is prohibited.

Max. user weight: 250lbs (113.4 kg)

1.4 Service Life

The expected service life is five years, presuming that the product is used daily and in accordance with safety instructions, maintenance instructions and intended use, stated in this manual.

1.5 Wear and Tear Information

Normal wear and tear items and components include but are not limited to all upholstery items including seat and back upholstery, arm and calf pads, cushions, wheels, tires and casters.

Top End reserves the right to ask for any item back that has an alleged defect in workmanship. See Warranty policy shipped with the product for specific warranty information.

Refer to User Manual for proper preventative maintenance schedule and use of the product.

This is just a general guideline and does not include items damaged due to abuse and misuse.

PRODUCT TYPE	PRODUCT WEAR AND TEAR PART
WHEELCHAIRS:	Wheels • Brake Assembly/Wheel Locks • Hand grips
UPHOLSTERY AND SEATING:	Arm Pads • Seat Cushion Foam • Seat Cushion Covers • Back Cushion Foam • Back Cushion Covers • Headrest Foam • Headrest Covers • Footplate Covers • Calf Pad (if applicable) Foam and Cover

2 Safety

2.1 General Safety

The safety section contains important information for the safe operation and use of this product.



WARNING!

- DO NOT use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as owner's manuals, service manuals or instruction sheets supplied with this product or optional equipment. If you are unable to understand the warnings, cautions or instructions, contact dealer or technical personnel before attempting to use this equipment - otherwise, injury or damage may occur.
- A qualified technician MUST perform the initial set up of this wheelchair. Also, a qualified technician must perform all procedures specifically indicated in the manual.



DANGER!

Risk of Serious Injury or Damage

- Use of incorrect or improper replacement (service) parts may cause death, serious injury, or damage.
- Replacement parts MUST match original Top End parts.
 - ALWAYS provide the wheelchair serial number to assist in ordering the correct replacement parts.



WARNING!

Risk of Serious Injury or Damage

Use of non-Top End accessories may result in serious injury or damage.

- Top End products are specifically designed and manufactured for use in conjunction with Top End accessories. Accessories designed by other manufacturers have not been tested by Top End and are not recommended for use with our products.
- DO NOT use non-Top End accessories.
- To obtain Top End accessories, contact Top End by phone or at www.topendsportslc.com



DANGER!

Risk of Serious Injury or Damage

Lighted cigarettes dropped onto an upholstered seating system can cause a fire resulting in death, serious injury, or damage.

Wheelchair occupants are at particular risk of death or serious injury from these fires and resulting fumes because they may not have the ability to move away from the wheelchair.

- DO NOT smoke while using this wheelchair.



NOTICE

- THE INFORMATION CONTAINED IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.
- Check all parts for shipping damage and test before using. In case of damage, DO NOT use. Contact Top End/Carrier for further instruction.



WARNING!

Risk of Injury or Damage

To avoid flipping the wheelchair over and injury and/or product damage from other misuse:

- DO NOT use an escalator to move a wheelchair between floors.
- DO NOT operate on roads, streets or highways.
- DO NOT attempt to ride over curbs or obstacles.

2.2 Reaching, Leaning and Bending



WARNING!

- DO NOT attempt to reach objects if you must move forward in the seat.
- DO NOT attempt to reach objects if you must pick them up from the floor by reaching down between your knees.
- DO NOT lean over the top of the back upholstery to reach objects from behind as this may cause the wheelchair to tip over.
- DO NOT shift your weight or sitting position toward the direction you are reaching as the wheelchair may tip over.

Reaching, Leaning, or Bending Forward



Position the front casters so that they are extended as far forward as possible and engage wheel locks.

Reaching, Leaning, or Bending Backwards



Position wheelchair as close as possible to the desired object. Point front casters forward to create the longest possible wheelbase. Reach back only as far as your arm will extend without changing your sitting position.

2.3 Transferring To and From Other Seats



WARNING!

– Before attempting to transfer in or out of the wheelchair, every precaution should be taken to reduce the gap distance. Turn both casters parallel to the object you are transferring onto. Also be certain the wheel locks of your everyday chair are engaged to help prevent the wheels from moving.



CAUTION!

– When transferring, position yourself as far back as possible in the seat. This will help prevent damaged upholstery and the possibility of the wheelchair tipping forward.

Transfer Instructions:

1. Position the wheelchair as close as possible alongside the seat to which you are transferring, with the front casters pointing parallel to it.
2. Engage wheel wells on your everyday chair. Shift body weight into seat with transfer.
3. During independent transfer, little or no seat platform will be beneath you.



This activity may be performed independently provided you have adequate mobility and upper body strength.

2.4 Stability and Balance



WARNING!

- The position of the footrest, center of gravity, back angle, the tautness of the back upholstery as well as the user's condition are directly related to the wheelchair's stability. Any change to one or any combination of the five conditions may cause the wheelchair to decrease in stability. Use extreme caution when using a new seating position. Anti-tippers should be adjusted to provide adequate stability. Refer to 5.20 Adjusting Height of Swivel Anti-tip Caster, page 56 or 5.21 Adjusting the Height of the Telescoping Anti-tip, page 57.

CHANGE	PROCEDURE				
	FOOTREST POSITION	CENTER OF GRAVITY	BACK ANGLE	BACK UPHOLSTERY	USER CONDITION
FOOTREST POSITION					
CENTER OF GRAVITY					
BACK ANGLE					
BACK UPHOLSTERY					
USER CONDITION					



If a change occurs, refer to the procedure indicated. Procedures are indicated by a checkmark in the intersecting cell of your change row and the procedure column. This will help you maintain the proper stability, safety, and handling of the wheelchair.

2.5 Safety Inspection Checklist



Every six months, take your wheelchair to a qualified technician for a thorough inspection and servicing. Regular cleaning will reveal loose or worn parts and enhance the smooth operation of your wheelchair. To operate properly and safely, your wheelchair must be cared for just like any other vehicle. Routine maintenance will extend the life and efficiency of your wheelchair. Clean upholstery with mild soap and water or spray disinfectant using a sponge. **DO NOT** use bleach or wash in a washing machine.

Initial adjustments should be made to suit your personal body structure and preference. Thereafter follow these maintenance procedures:

Inspect/Adjust Initially

- ☐ Initial adjustments should be made to suit your personal body structure and preference. Thereafter follow these maintenance procedures:
- ☐ Inspect seat and back upholstery for rips or sagging.
- ☐ Inspect upholstery fastening flaps to ensure they securely latch.
- ☐ Inspect click strap for any signs of wear. Ensure buckle latches. Verify hardware that attaches strap to frame is secure and undamaged. Replace if necessary.
- ☐ Ensure quick release axles and receivers are clean.
- ☐ Ensure quick/quad release axles lock properly.
- ☐ Ensure no excessive side movement or binding when wheel is lifted and spun.
- ☐ Inspect handrims for signs of rough edges or peeling.
- ☐ Inspect spokes for bent or broken spokes.
- ☐ Ensure all spokes are uniformly tight.

- ☐ Ensure all bolts are tight.



CAUTION!

– Clean upholstery with mild soap and water or spray disinfectant using a sponge. **DO NOT** use bleach or wash in a washing machine.

- ☐ Clean upholstery.



CAUTION!

– As with any vehicle, the wheels and tires should be checked periodically for cracks and wear and should be replaced.
– For more information refer to 6.I Removing/Installing Rear Wheels, page 58.

- ☐ Inspect wheel/fork assembly for proper tension by spinning caster; caster should come to a gradual stop.
- ☐ Loosen/tighten locknut if wheel wobbles noticeably or binds to a stop.
- ☐ Ensure wheel bearings are clean and free of moisture.
- ☐ Inspect tires for flat spots and wear.
- ☐ Ensure casters are free of debris.
- ☐ Check that all labels are present and legible. Replace if necessary.

Inspect/Adjust Weekly

- ☐ Ensure quick release axles and receivers are clean.
- ☐ Ensure quick/quad release axles lock properly.
- ☐ Inspect handrims for signs of rough edges or peeling.
- ☐ Inspect spokes for bent or broken spokes.
- ☐ Ensure all spokes uniformly tight.
- ☐ Ensure all bolts are tight.

**CAUTION!**

– As with any vehicle, the wheels and tires should be checked periodically for cracks and wear and should be replaced.

- ☐ Inspect wheel/fork assembly for proper tension by spinning castor; castor should come to a gradual stop.
- ☐ Inspect tires for flat spots and wear.
- ☐ Check for proper inflation.
- ☐ Ensure castors are free of debris.

Inspect/Adjust Monthly

- ☐ Inspect upholstery fastening flaps to ensure they securely latch.
- ☐ Inspect click strap for any signs of wear. Ensure buckle latches. Verify hardware that attaches strap to frame is secure and undamaged. Replace if necessary.

**CAUTION!**

– As with any vehicle, the wheels and tires should be checked periodically for cracks and wear and should be replaced.

- ☐ Loosen/tighten locknut if wheel wobbles noticeably or binds to a stop.
- ☐ Ensure wheel bearings are clean and free of moisture.
- ☐ Ensure castors are free of debris.

Inspect/Adjust Periodically

- ☐ Ensure wheelchair rolls straight (no excessive drag/pull to one side).
- ☐ Inspect seat and back upholstery for rips or sagging.
- ☐ Ensure no excessive side movement or binding when wheel is lifted and spun.

- ☐ Inspect handrim for signs of rough edges or peeling.

**CAUTION!**

– Clean upholstery with mild soap and water or spray disinfectant using a sponge. **DO NOT** use bleach or wash in a washing machine.

- ☐ Clean upholstery.

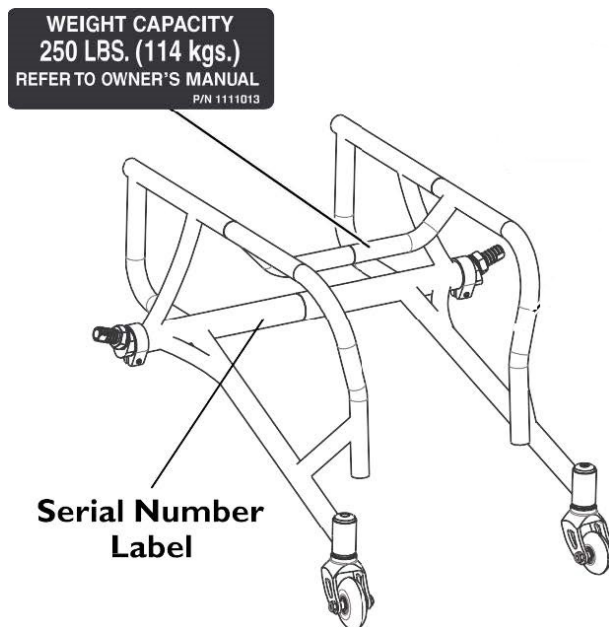
**CAUTION!**

– As with any vehicle, the wheels and tires should be checked periodically for cracks and wear and should be replaced.

- ☐ Ensure wheel bearings are clean and free of moisture.
- ☐ Ensure castors are free of debris.
- ☐ Inspect footrest bolts for rust or wear.
- ☐ Check that all labels are present and legible. Replace if necessary.

3 Overview

3.1 Label Location



3.2 Specifications

SCHULTE 7000 SERIES/T-5™ 7000 SERIES TENNIS	
FRAME:	Rigid - 7005 Aluminum
SEAT WIDTH:	14 - 21 inches (35.56 - 53.34 cm) - Outside to outside of seat frame in 1-inch (2.53 cm) increments
SEAT DEPTH:	14 to 18-inches (35.56 - 45.72 cm)
SEAT-TO-FLOOR (FIXED):	Front - 14 1/2 to 20 7/8 inch (36.83 - 53.02 cm) Rear - 14 1/2 to 20 7/8 inch (36.83 - 53.02 cm)
BACK STYLE:	Fixed
BACK HEIGHT	
FIXED:	8 to 15 1/2 inches (20.32 - 39.37 cm)
ADJUSTABLE:	9 to 11 inches (22.86 to 27.94 cm) in 1-inch (2.54 cm) increments. 11 to 14 inches (27.94 to 35.56 cm) in 1-inch (2.54 cm) increments. 14 to 18 (35.56 to 45.72 cm) in 1-inch (2.54 cm) increments.
BACK ANGLE:	Fixed 0° (Set at 90° to floor)
WHEELBASE:	16, 17, 18, or 19 inches (40.64, 43.18, 45.72, or 48.26 cm)
FOOTREST:	Tubular: 4-inch (10.16 cm) Height Adjustment
SIDE-WHEEL CLEARANCE:	Adjustable 1/2 to 1-1/2 inches (1.27 - 3.81 cm)
REAR AXLE:	Fixed Axle Position, Quick Release Axle (Standard)
REAR WHEEL CAMBER:	Fixed: 15°, 18° or 20°

SCHULTE 7000 SERIES/T-5™ 7000 SERIES TENNIS CHAIR	
REAR WHEELS*:	
Sun® Double Walled Rim High Flange Hub (Standard)	24–inch, 25–inch, 26–inch, 700C
Sun® Sun Equalizer (Optional)	24–inch, 25–inch, 26–inch, 700C
Spinergy®SLX Wheels (Optional)	24–inch, 25–inch, 26–inch, 700C
REAR WHEEL TIRES:	
Primo 25-540 (Standard) Kenda (Optional)	24–inch
Primo 25-559 (Standard) Kenda (Optional)	25–inch
Primo 25-590 (Standard) Kenda (Optional)	26–inch
Cheng Shin CST Super HP (Standard) Kenda (Optional)	700C
HANDRIMS:	Aluminum Welded 6 Tab (Standard) Aluminum Welded 12 Tab (Optional) Titanium 6 Tab (Optional)
WHEEL LOCKS:	N/A
FRONT FORKS:	Fits 3-inch (7.62 cm) Wheel Non-Suspension (Standard)
CASTOR SIZE:	3-inch (7.62 cm) Solid (Standard)

SCHULTE 7000 SERIES/T-5™ 7000 SERIES TENNIS CHAIR	
BACK UPHOLSTERY:	U240 Black - Adjustable Tension
WEIGHT:	21lbs (10.89 kg) Schulte 7000, 20lbs. T5 7000
SHIPPING WEIGHT:	30lbs (13.6 kg)
WEIGHT LIMITATION:	250lbs (114 kg), HD optional available



15 x 15-inch (38.1 x 38.1 cm) seat, rear wheels and minimal options are included in the weight.

Refer to 3.4 Tire Pressure Conversion, page 26.

All specifications are approximate.

TOP END PRO™ TENNIS AND TOP END PRO™ BB	
FRAME:	Rigid - 6061T6 Aluminum
SEAT WIDTH:	10 to 20 inches (30.48 - 50.8 cm) - Outside to Outside of SEAT FRAME in 1-inch (2.53 cm) increments
SEAT DEPTH:	10 to 18-inches (35.56 - 45.72 cm)
SEAT-TO-FLOOR ADJUSTABLE:	Front - 19 to 21-inch (48.26 - 53.34 cm), Rear -15 to 21-inch (38.10 - 53.34 cm)
BACK STYLE:	Fixed standard, Folding optional
ADJUSTABLE BACK HEIGHT:	9 to 11 inches (22.86 to 27.94 cm) in 1-inch (2.54 cm) increments. 11 to 14 inches (27.94 to 35.56 cm) in 1-inch (2.54 cm) increments. 14 to 18 (35.56 to 45.72 cm) in 1-inch (2.54 cm) increments.
BACK ANGLE:	0° Fixed, Adjustable Optional folding
WHEELBASE:	15, 17, or 19 inches (38.10, 43.18, or 48.26 cm)
FOOTREST:	Recessed footrest - height and angle adjustable, adjustable forward and backward
SIDE-WHEEL CLEARANCE:	Adjustable 1/2 to 1-1/2 inches (1.27 - 3.81 cm)
REAR AXLE:	Fixed Axle with Adjustable Center of gravity position 3.5 inches to 6inches, Quick Release (Standard)
REAR WHEEL CAMBER:	Fixed: 15°, 18° or 20°

TOP END PRO™ TENNIS AND TOP END PRO™ BB	
REAR WHEELS*:	
Sun® Double Walled Rim High Flange Hub (Standard)	24–inch, 25–inch, 26–inch
Sun® Sun Equalizer Wheels (Optional)	24–inch, 25–inch, 26–inch
Spinergy®SLX Wheels (Optional)	24–inch, 25–inch, 26–inch
REAR WHEEL TIRES:	
Primo 25-540 (Standard) Kenda (Optional)	24–inch
Primo 25-559 (Standard) Kenda (Optional)	25–inch
Primo 25-590 (Standard) Kenda (Optional)	26–inch
HANDRIMS:	Aluminum Welded 6 Tab (Standard) Aluminum Welded 12 Tab (Optional)
WHEEL LOCKS:	N/A
FRONT FORKS:	Fits 3-inch (7.62 cm) Wheel Non-Suspension (Standard)
CASTOR SIZE:	3-inch (7.62 cm) Solid (Standard)
BACK UPHOLSTERY:	U240 Black - Adjustable Tension
WEIGHT:	23.5lbs (10.66 kg)

SHIPPING WEIGHT:	30lbs (13.6 kg)
WEIGHT LIMITATION:	250lbs (114 kg)



15 x 15-inch (38.1 x 38.1 cm) seat, rear wheels and minimal options are included in the weight.

Refer to 3.4 Tire Pressure Conversion, page 26.

All specifications are approximate.

TOP END PRO-2™ ALL SPORT	
FRAME:	Rigid — Heat treated 7000 Series Aluminum
SEAT WIDTH:	14, 16 or 18 inches (35.5, 40.6, 45.7 cm)
SEAT DEPTH:	Adjustable 13 to 17 inches (33 to 43 cm)
SEAT-TO-FLOOR ADJUSTABLE:	Front — 18 to 20 inch (45.7 to 50.8 cm), Rear — 15 to 20 inch (38.1 to 50.8 cm)
BACK STYLE:	Fixed standard
ADJUSTABLE BACK HEIGHT:	11 to 14 inches (27.94 to 35.56 cm) in 1-inch (2.54 cm) increments
BACK ANGLE:	0° Fixed, Adjustable Optional Angle
WHEELBASE:	18 inches (45.7 cm)
FOOTREST:	Clamp-on tubular recessed adjustable height
SIDE-WHEEL CLEARANCE:	Adjustable 1/2 to 1-1/2 inches (1.27 - 3.81 cm)
REAR AXLE:	Fixed Axle with Adjustable Center of gravity position 2.5 inches to 5 inches, Quick Release (Standard)
REAR WHEEL CAMBER:	Fixed: 15°

TOP END PRO-2™ ALL SPORT	
REAR WHEELS*:	
Sun® Double Walled Rim High Flange Hub (Standard)	25-inch
REAR WHEEL TIRES:	
Primo 25-559 (Standard)	25-inch
HANDRIMS:	Aluminum Welded 6 Tab (Standard)
WHEEL LOCKS:	N/A
FRONT FORKS:	Fits 3-inch (7.62 cm) Wheel Non-Suspension (Standard)
CASTOR SIZE:	3-inch (7.62 cm) Solid (Standard)
BACK UPHOLSTERY:	U240 Black - Adjustable Tension
WEIGHT:	23.5lbs (10.66 kg)
SHIPPING WEIGHT:	30lbs (13.6 kg)
WEIGHT LIMITATION:	250lbs (114 kg)



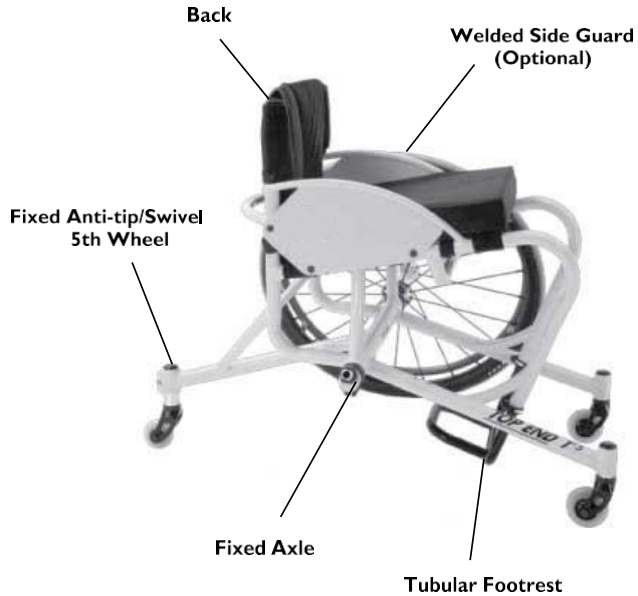
15 x 15-inch (38.1 cm x 38.1 cm) seat, rear wheels and minimal options are included in the weight.

Refer to 3.4 Tire Pressure Conversion, page 26.

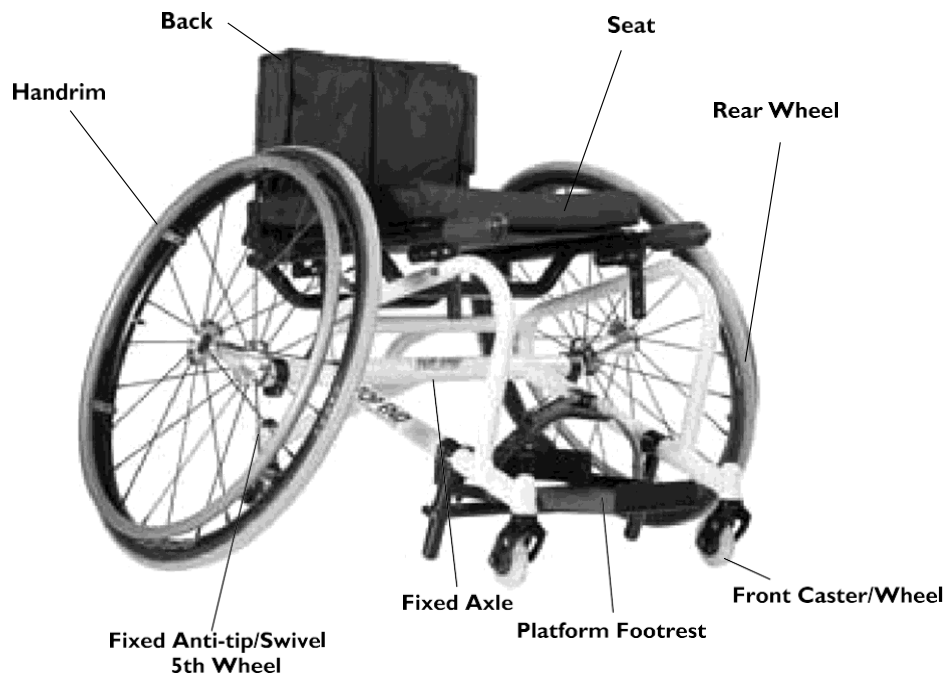
All specifications are approximate.

3.3 Component Identification

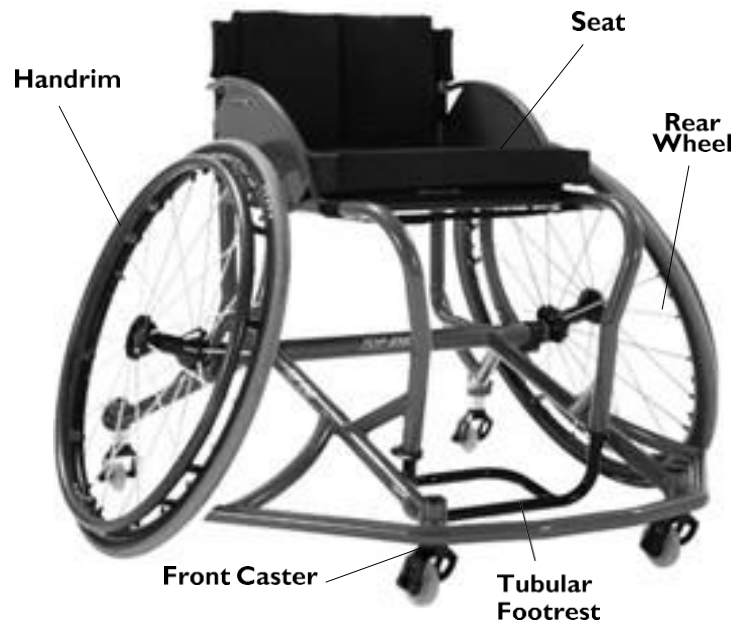
T-5™ 7000 Series Tennis



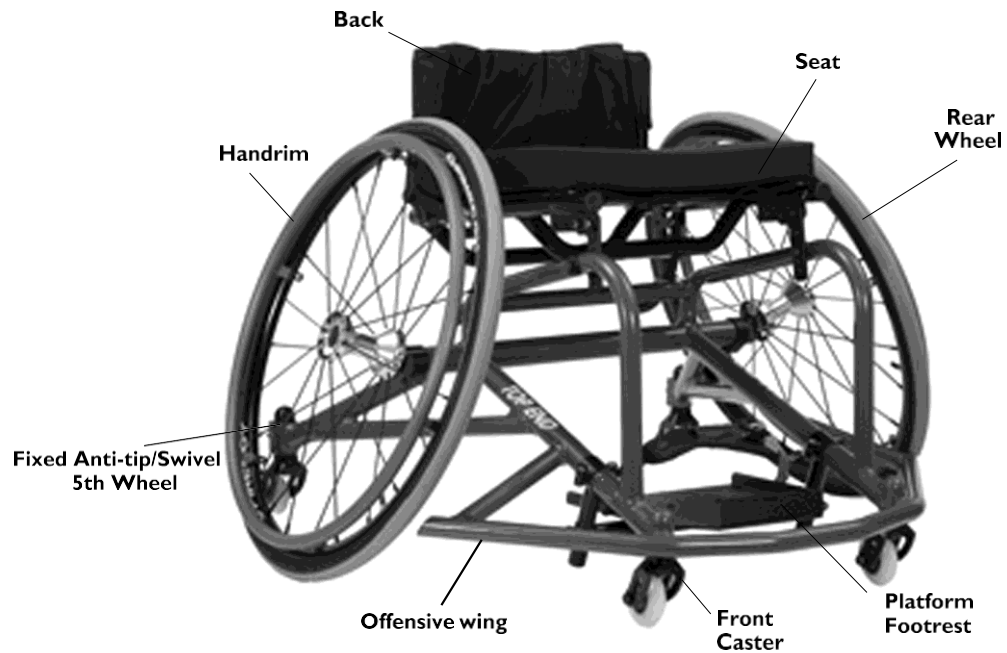
Pro™ Tennis



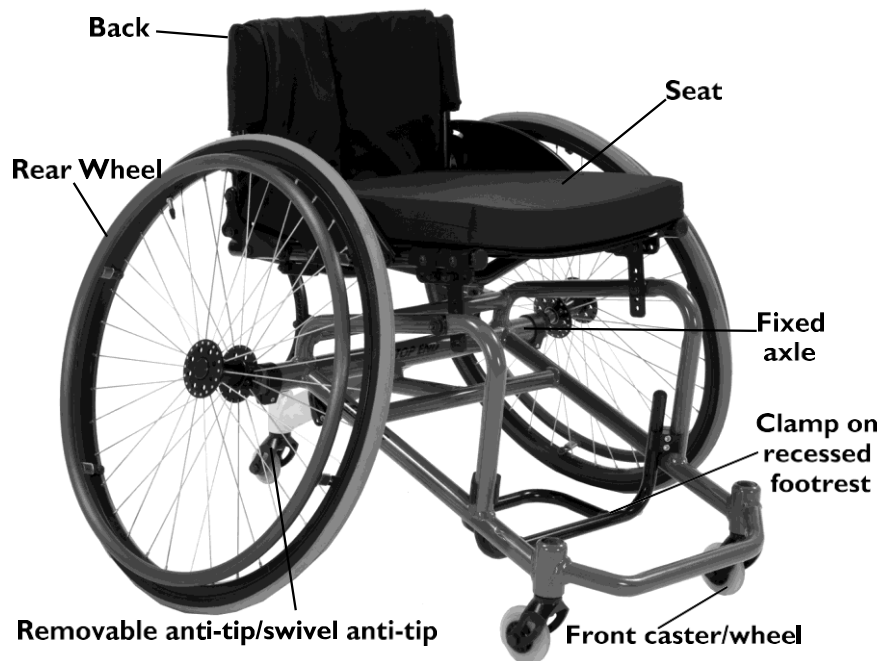
Schulte 7000 Series BB Basketball



Pro™ BB



Pro-2™ All Sport



3.4 Tire Pressure Conversion



PSI rating is printed on the side of the tire.

Conversion formula: 1 psi=6.895 kPa (approx. 7 kPa).

PSI	KILOPASCALS
50	345
55	379
60	414
65	448
70	483
75	517
80	552
85	586

PSI	KILOPASCALS
90	621
95	655
100	690
105	724
110	758
115	793
120	827

4 Pro-2 Assembly

4.1 Components

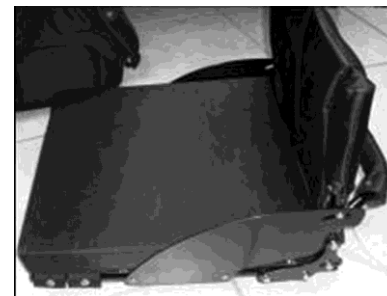
A



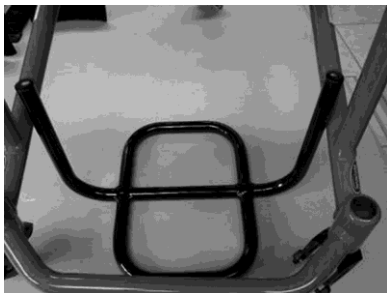
B



C



D



E



Included in the package A:

- Complete Wheel Assemblies
- Introductory Bonus Set of Smooth Primo Tires
- Base Frame B
- Seat Frame (Assembled with Sideguards, Upholstery, Cushion, and Frame Protector) C
- Footrest D
- Axles
- Adjustable Anti-tip Assembly
- Positioning Strap
- All Attaching Hardware E

4.2 Tools

These tools may be needed:

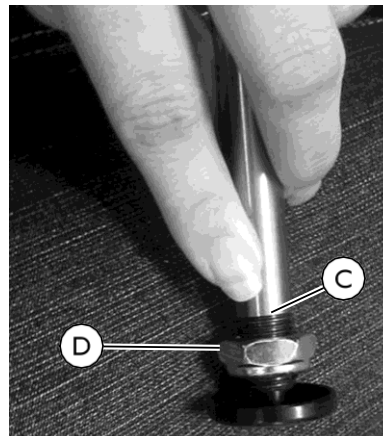
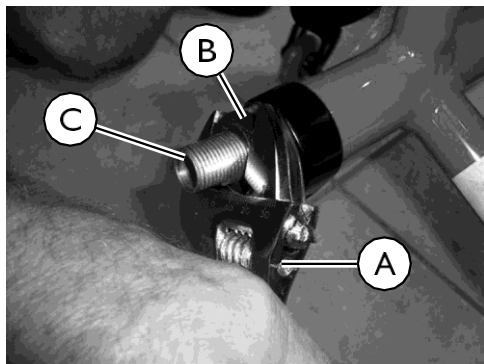
- Adjustable Wrench
- 5mm Allen Wrench
- 4mm Allen Wrench
- Two 10 mm combination wrenches or socket 7/16- and 3/4-inch wrench



An assistant to hold the seat frame in place while installing may also be helpful.

The assembly should take about 30–45 minutes.

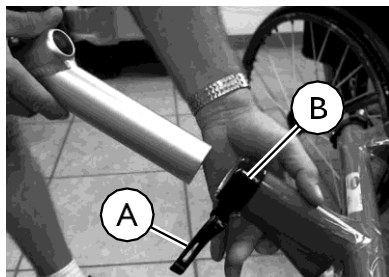
4.3 Adjusting and Installing the Wheels



Axle receiver nut is loosely installed on axle receiver bolt.

1. Using the adjustable wrench, A, tighten the axle receiver nut B on the axle receiver bolt C.
2. Adjust nut on axle D so the ball bearing will lock into place when inserted through wheels and into axle receiver.

4.4 Installing Adjustable Anti-tip Wheel



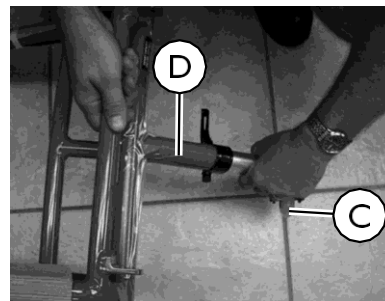
1. Release and loosen the quick release lever A attached to the anti-tip clamp B.
2. Insert adjustable anti-tip wheel C into base frame D with wheel facing down.
3. Move anti-tip to desired height above ground.



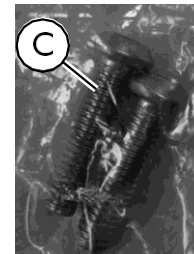
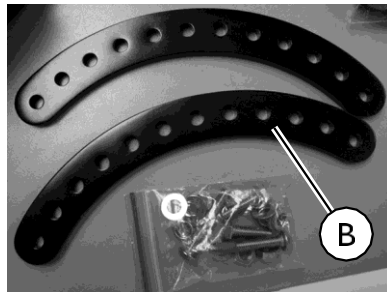
The anti-tip should be about a finger's width above the ground.

4. With rear wheels on, tighten quick release lever at desired level.

After installing the adjustable anti-tip wheel, rear wheels may be removed to prevent the chair from moving while installing other parts.



4.5 Attaching the L Brackets



There are two sets of brackets

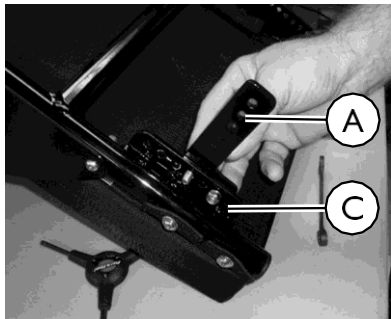
- The L Brackets for the front of the chair A
- The Curved Brackets for the rear of the chair B

The L Brackets are installed with four bolts of the same size.

The Curved Brackets are installed with two short bolts, two longer bolts, and two single bolts (bagged separately) C.



The hole you choose to mount the L bracket in will determine the center of gravity of the chair. For more information about adjusting the center of gravity refer to 5.10 Adjusting Center of Gravity, page 46.



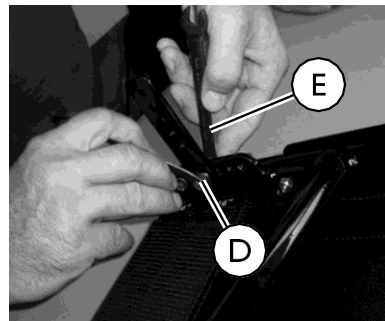
I. Attach the L Brackets A to the inside of the welded tabs C on the seat frame by:

a. Inserting the bolt from the inside of the seat frame D.

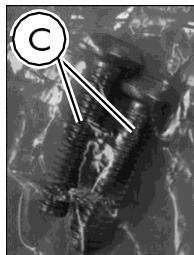
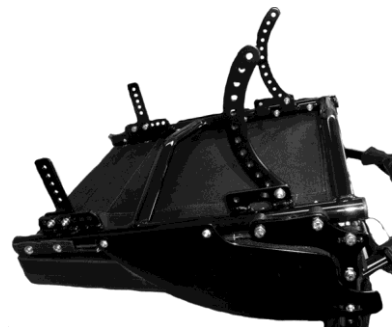
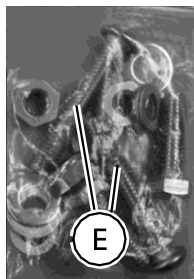
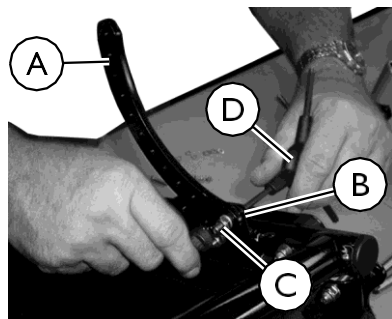


Use one flat washer, one split washer, and one nut for each bolt.

Use the two 10 mm wrenches E to hold and tighten the bolts.



4.6 Attaching the Curved Brackets to the Seat Frame




1. Remove the large bolts E from the bag and set them aside.


 These are extra bolts and will not be used.

2. Attach the curved brackets to the seat frame by:

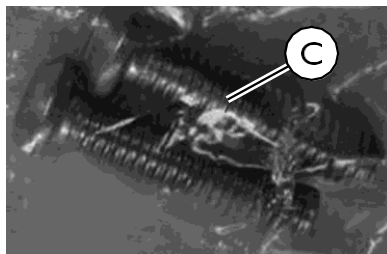
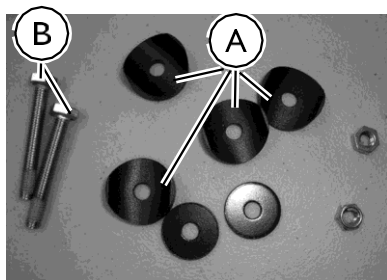
- a. Aligning the curved bracket A to the inside of the welded tabs B on the seat frame.
- b. Inserting the small bolts C (bagged separately) from the outside of the seat frame through the seat frame and curved bracket.

 Use one flat washer, one nordlock washer, and one nut for each bolt.

- c. Using a 10 mm wrench and a 4 mm Allen wrench D tighten the bolt into place.

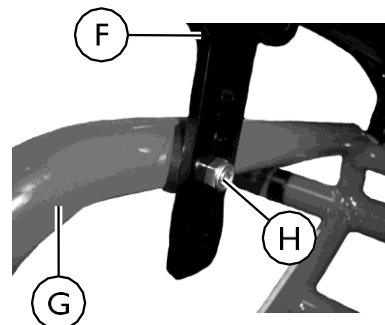
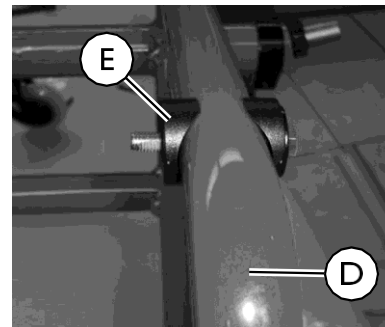
 Leave brackets slightly loose so they can be adjusted and attached to base frame.

4.7 Attaching the Seat Frame to the Base Frame



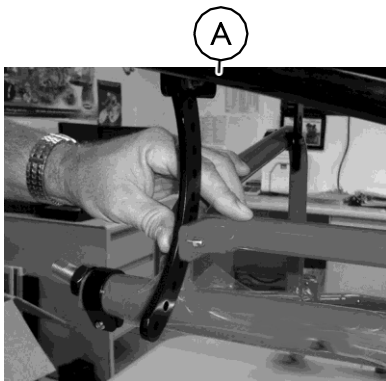
1. Place the seat frame on top of base frame, aligning the brackets with the tabs welded in the rear and the holes drilled in the front of the frame.
2. Using the coped washers, A and the bolts B bagged with them, attach the front L Brackets to the frame holes.
3. Using the long bolts C set aside in 4.6 Attaching the Curved Brackets to the Seat Frame, page 32, attach the curved brackets to the welded tabs.

4. Tighten the brackets on the seat frame so the nut is as close to the seat frame as possible.



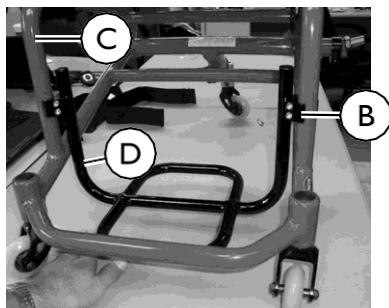
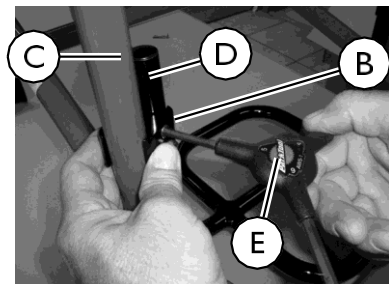
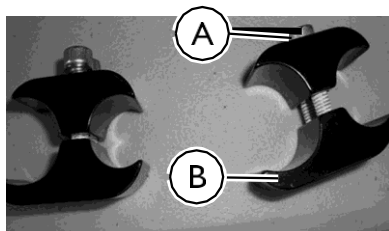
5. Place a flat and coped washer on each bolt, and insert the bolts through the drilled holes in the front of the seat frame D.
6. Place a second coped washer E on the inside of the seat frame.
7. Place the base frame F on top of the seat frame G and bolt and secure by tightening the nut H.

4.8 Attaching the Curved Brackets to the Base Frame



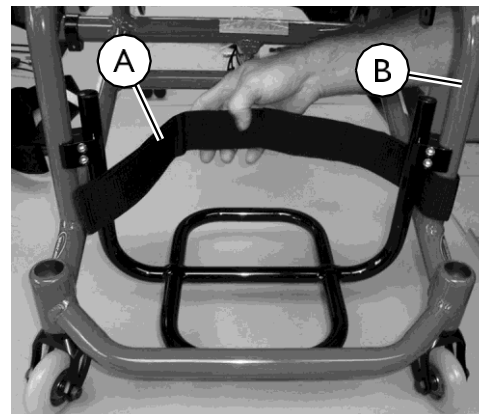
1. Adjust the seat frame so the curved bracket is in the desired position and height.
2. Line up the hole of a washer with the hole of the curved bracket on the outside of the base frame.
3. Insert a bolt through the washer, curved bracket, and base frame A.
4. Tighten the nut on the bolt until the nut is securely against the base frame.

4.9 Attaching the Footrest



1. Insert two bolts A through each two-part clamp B.
2. Attach the larger side of the two-part clamps to the base frame down tube C in the desired position.
3. Attach the other side of the two-part clamp to the footrest D.
4. Tighten the clamp using an Allen key E.

4.10 Attaching the Foot strap



1. Separate the hook and loop sections of the foot strap A.
2. Place the foot strap around the front down tubes of the base frame B in the desired position.
3. Connect the hook and loop sections of the foot strap.

5 Wheelchair Operation

5.1 Operating Information



WARNING! **WHEELCHAIR USER**

- As a manufacturer of wheelchairs, Top End endeavors to supply a wheelchair to meet many needs of the end user. However, final selection of a wheelchair to be used by an individual rests solely with the user. Use this information only as a basic guide. The techniques that are discussed on the following pages have been used successfully by many.
- Individual users often develop skills to deal with daily living activities that may differ from those described in this manual. Top End recognizes and encourages everyone to try what works best for him/her in overcoming obstacles that they may encounter.
- Techniques in this manual are a starting point for the wheelchair user and assistant with safety as the most important consideration for all.

TRANSPORT

- DO NOT transport a wheelchair user in vehicles of any kind while in a wheelchair. As of this date, the Department of Transportation has not approved any tie-down systems for transportation of a user while in a wheelchair, in a moving vehicle of any type.



WARNING!

SEAT POSITIONING STRAP

- **SERIOUS INJURY CAN OCCUR IN THE EVENT OF A FALL FROM THE PRODUCT.**
- ALWAYS use your click strap (if equipped). Top End strongly recommends using the click strap as an additional safeguard for the wheelchair user. The click positioning strap is a positioning belt only. It is not designed for use as a safety device withstanding high stress loads such as auto or aircraft safety belts. If signs of wear appear, the belt **MUST** be replaced **IMMEDIATELY**.

TIRE PRESSURE

- DO NOT use your wheelchair unless it has the proper tire pressure (psi). DO NOT overinflate the tires. Failure to follow these suggestions may cause the tire to explode and cause bodily harm. The recommended tire pressure is on the sidewall of the tire.
- DO NOT ride on a flat or under inflated tires. Riding on flat or under inflated tires can cause injury, as well as damage to the tire, tube and handcycle wheels.
- Replacement of the tire or tube **MUST** be performed by a qualified technician.

WEIGHT LIMITATION

- The Top End Sport Series wheelchairs have a weight limitation of 250lbs (114 kg).

**WARNING!****RISK OF INJURY OR DAMAGE**

- Care, consideration and practice **MUST** be taken and observed in the following safety points. Otherwise, injury or damage may occur.
- Safe use requires the close attention of the user as well as the assistant. This user manual points out the most common procedures and techniques involved in the safe operation and maintenance of the wheelchair. It is important to practice and master these safe techniques until you are comfortable in maneuvering the wheelchair.
- The offensive wing design creates a potential foot entrapment area. Ensure the occupant's legs and feet are properly secured during use. When transferring the occupant, ensure the feet do not slip between the wing and the footrests.
- **DO NOT** use the footplate as a platform when getting in or out of the wheelchair.
- **DO NOT** stand on the frame of the wheelchair.
- **ALWAYS** use the handrims for self-propulsion.
- Unless otherwise noted, all service and adjustments should be performed while the wheelchair is unoccupied.
- Check all allen screws that secure the footrest system to the chair frame before using the wheelchair, especially if engaging in any contact sport.
- Anti-tippers should be properly adjusted at all times. When outdoors on wet, soft ground or on gravel surfaces anti-tippers may not provide the same level of protection against tip over. Extra caution **MUST** be observed when traversing such surfaces.

**WARNING!****RISK OF INJURY OR DAMAGE**

- The user is responsible for normal upkeep and maintaining the wheelchair in proper operating condition.
- The manufacturer is not responsible for failure, damage or injury caused by improper operation or maintenance by the end-user
- To determine and establish your personal safety limits, practice transferring activities in the presence of a qualified health care professional before attempting active use of the wheelchair.
- **DO NOT** attempt to move up or down an incline with an ice or oil film. Avoid all surface hazards.
- **DO NOT** attempt to ride over curbs or obstacles or speed bumps. Doing so may cause your wheelchair to turn over and cause bodily harm or damage to the wheelchair.
- **DO NOT** attempt to lift the wheelchair by any removable (detachable) parts. Lifting by means of any removable (detachable) parts of a wheelchair may result in injury to the user or damage to the wheelchair.
- **DO NOT** carry any riders.
- **DO NOT** carry any items that may obstruct your view or prohibit you from operating the wheelchair properly.

5.2 Replacing Adjustable Tension Back Upholstery

Adjustable Tension Straps

The straps can be adjusted at various levels of tension to accommodate individual end-users. The bottom two straps can be adjusted tightly to support and/or assist the extensor muscles.

Back Upholstery Cover

The back upholstery cover is designed for three reasons:

- A modesty cover
- To keep the cushion from sliding out of the back of the wheelchair
- A sacral support depending upon how far or tight the flap is pulled under the seat cushion

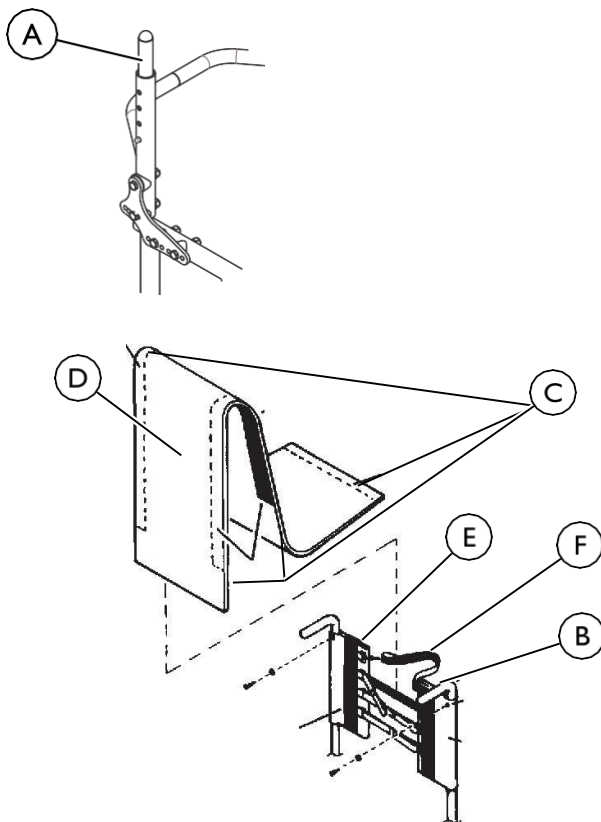


WARNING! **RISK OF INJURY OR DAMAGE**

– The position of the footrest, seat angle, back angle, seating system/upholstery, caster size and position, rear wheel size and position, use of anti-tippers, as well as the user condition directly relate to the stability of the wheelchair. Any change to any combination of these parts or settings may cause the wheelchair to decrease in stability. **EXTREME** care **MUST** be taken when changing the stability of the wheelchair. Refer to the 2.1 General Safety, page 7 in this manual for more information.



Replacing Adjustable Tension Back Upholstery



1. Slide the existing back upholstery up and off the back posts A.



Both back posts A should be adjusted to the same height.

2. Slip adjuster straps F through corresponding anchor loops E and adjust the back upholstery. Secure with the fastening straps C.



WARNING! **RISK OF INJURY OR DAMAGE**

– After the adjustable tension back upholstery has been positioned to the end-users individual needs, the fastening straps **MUST** be securely fastened **BEFORE** applying the back upholstery cover. The adjustable back should be checked whenever entering the wheelchair to ensure that the fastening straps are securely fastened.

3. Secure the back upholstery cover (fastening strap) C to the back of the adjustable back upholstery (fastening strap).
4. Flip the back upholstery cover D over the adjustable back upholstery and secure the fastening straps C to the front of the adjustable back upholstery.
5. Lay the front portion of the back upholstery cover D on the seat pan.
6. Adjust the slack in the back upholstery cover D and then secure to the seat pan fastening straps.

5.3 Adjusting Back Height/Back Upholstery



Before unlatching the fastening flaps, observe the tautness of the back upholstery for installation.

Refer to images in 5.4 Replacing Adjustable Tension Back Upholstery, page 40.

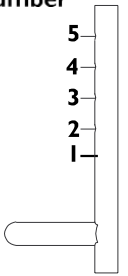
1. Unlatch the two fastening flaps that secure the top of the back upholstery to the back posts B and remove from the back posts.



WARNING! **RISK OF INJURY OR DAMAGE**

- Push pin **MUST** be protruding through hole in back post.
- Ensure that both back post inserts are at the same height **BEFORE** assembling the wheelchair.

2. Press the push pin on the back post insert tube A in and adjust the back height to one of four heights depending on original back height:

Back Height (inches) (CM)		9-11 inches (22.86 - 27.94 cm)	10-14 inches (25.40 - 35.56 cm)	12-16 inches (30.48 - 40.64 cm)	14 - 18 inches (35.56 - 45.72 cm)
Hole* Number					
	1	9 (22.86 cm)	10 (25.40 cm)	12 (30.48 cm)	14 (35.56 cm)
	2	10 (25.40 cm)	11 (27.94 cm)	13 (33.02 cm)	15 (38.1 cm)
	3	11 (27.94 cm)	12 (30.48 cm)	14 (35.56 cm)	16 (40.64 cm)
	4	N/A	13 (33.02 cm)	15 (38.10cm)	17 (43.18 cm)
	5	N/A	14 (35.56 cm)	16 (40.64 cm)	18 (45.72 cm)



*Holes numbered from bottom to top for reference only (There are no numbers on the back posts).

There is a 1-inch (2.54 cm) adjustment pin on the back post insert tube. To raise back to maximum height, first make adjustment to the back post inserts.

- Reinstall the fastening flaps onto the back posts B.



The fastening flap with logo is for the left back post.

Right and left is determined by sitting in the wheelchair.

- Adjust the new back upholstery to the desired tautness.

5.4 Removing Play from Rear Wheels



WARNING!

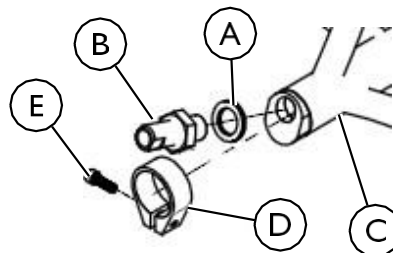
RISK OF INJURY OR DAMAGE

– After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise, injury or damage may occur.

With the rear wheel and quad-release axle still mounted onto the wheelchair, make the following adjustment:

- Tighten the length adjusting screw until there is no in and out movement of the quad-release axle and rear wheel.

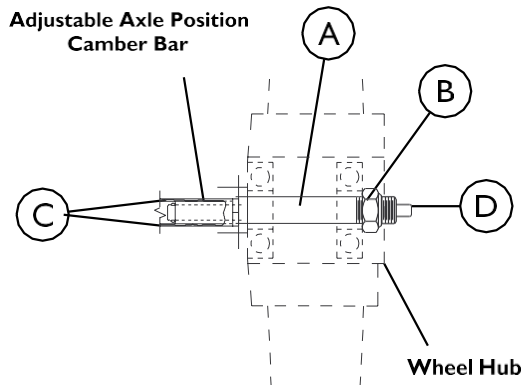
5.5 Preventing Play in Rear Wheels



To prevent play in rear wheels, install the rear wheel bolt securing lock washer system.

- Attach camber clamp D to wheelchair frame C.
- Insert bolt E through camber clamp D and tighten securely.
- Place washer A between axle receiver and nut assembly B and wheelchair frame C.
- Tighten axle receiver and nut assembly B securely.

5.6 Adjusting Quick-Release Axles



1. Remove rear wheel and quick-release axle A from the wheelchair.
2. Depress detent pin D in the quick-release axle A and slide axle through the wheel hub.
3. Release detent pin D ensuring that the locking pins C are fully released.
4. Increase or decrease end play by adjusting the locknut B on the end of the quick-release axle A.
5. Install the rear wheel onto the wheelchair and ensure the wheel is securely engaged.

5.7 Determining Toe In/Toe Out

1. Inflate all pneumatic tires to recommended tire pressures (listed on the sidewall of the tire).
2. Measure the distance between the centerlines at the rear and front of the rear wheels at approximately 12 inches (30.48 cm) from the ground/floor.

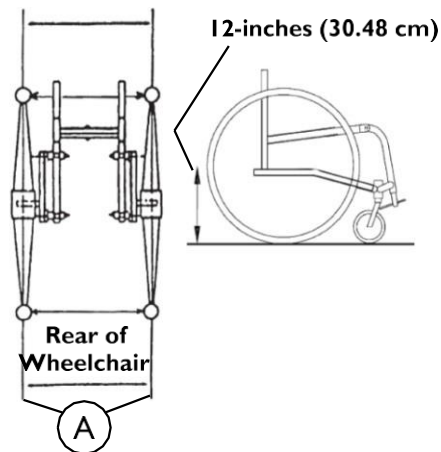


For optimum accuracy, perform STEP 2 with the wheelchair occupied.

If you have an alignment gauge, refer to 9.1 Using the Alignment Gauge, page 67.

**Top
View of
Wheelchair**

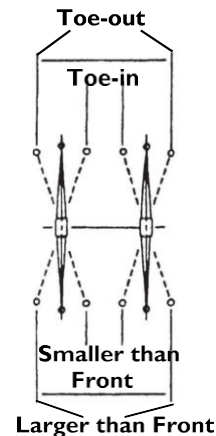
Front of Wheelchair



3. Determine difference between two measurements. If difference between the two measurements is greater than 1/2-inch (1.27 cm) (0 + 1/4-inch (.63 cm) for maximum rollability), one of two conditions exists:
 - If the back centerline measurement of the rear wheels is **SMALLER** than the front centerline measurement of the rear wheels, a **TOE-OUT** condition exists.
 - If the back centerline measurement of the rear wheels is **LARGER** than the front centerline measurement of the rear wheels, a **TOE-IN** condition exists.
4. If the difference between the measurements is greater than 1/2-inch (1.27 cm), correct the toe-in/toe-out condition.

Front of Wheelchair

**Top View of
Wheelchair**



5.8 Adjusting Center of Gravity

Top End Pro Tennis/Top End Pro BB Models

1. If necessary, remove the seat upholstery. Refer to 6.5 Replacing Adjustable Tension Seat Upholstery, page 61 or 6.7 Replacing Pro-2™ All Sport Screw-on Seat Upholstery, page 62.
2. Review the following chart and determine the correct COG mounting position and then proceed to STEP 3.

COG Mounting Position	Equivalent Axle Position	Comments
1	5 1/2 inch (13.9 cm)	See Detail “B” for COG position 1
2	5 inch (12.7 cm)	See Detail “B” for COG position 2
3	4 1/2 inch (11.4 cm)	See Detail “B” for COG position 3
4	4 inch (10.2 cm)	See Detail “B” for COG position 4
5	3 1/2 inch (8.9 cm)	See Detail “B” for COG position 5
6	3 inch (7.6 cm)	See Detail “B” for COG position 6

3. Remove the two mounting screws A and locknuts E that secure the L-bracket D to the COG bracket C on the seat rail B (Detail “A”).
4. Repeat STEP 3 for opposite side of wheelchair.

5. Perform one of the following:

- For COG mounting positions 1-5 proceed to STEP 6
- To obtain COG mounting positions 6 and 7 perform the following (Detail “C”):
 - a. Remove the mounting screw A, two washers B, coved spacer C, and locknut E that secure the L-bracket D to the base frame F.
 - b. Remove the L-bracket D.
 - c. Secure the L-bracket B to base frame D in the position shown in Detail “D” with mounting screw, two washers, coved spacer, and locknut C. Tighten securely.
 - d. Proceed to STEP 7.

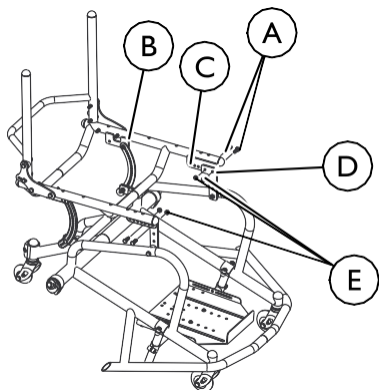
6. Secure the L-bracket B to the COG bracket A in the desired mounting position with two mounting screws and locknuts (Detail “B”). Tighten securely.
7. Secure the L-bracket B to the COG bracket A in the desired mounting position with two mounting screws and locknuts C (Detail “D”). Tighten securely.
8. Repeat STEP 4-6 for remaining COG bracket.
9. If necessary, install the seat upholstery.

Top End Pro™ Tennis (Not shown)/Top End Pro™ BB (Shown)

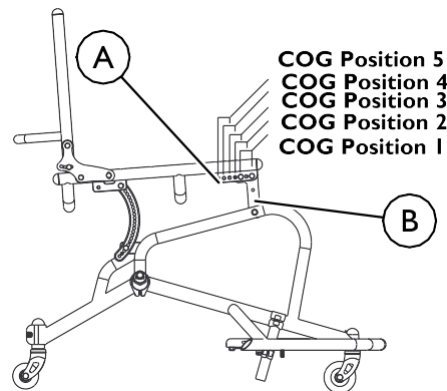


Refer to images on next page.

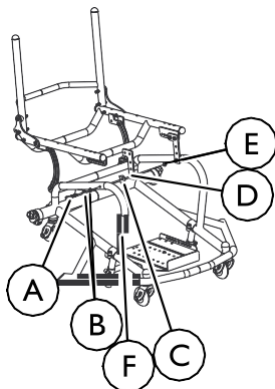
Detail "A"



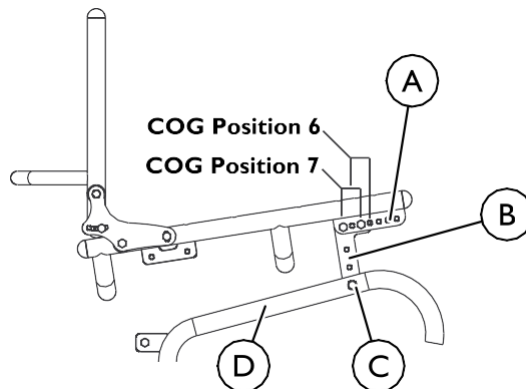
Detail "B"



Detail "C"

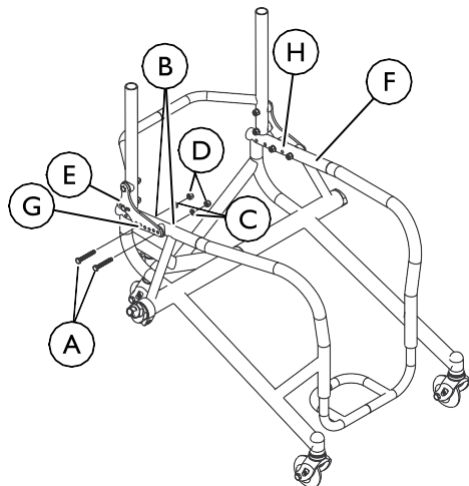


Detail "D"



T-5™ 7000 Series Tennis and Schulte 7000 Series BB Basketball Models

Adjusting Center of Gravity Option



1. If necessary, remove the seat upholstery.
2. Remove the four mounting screws A, coved spacers B, washer C, and locknuts D that secure the two backrest mounting brackets E to the base frame F.
3. Secure backrest mounting brackets E to the base frame F in the desired mounting holes in the back rest mounting bracket G and the mounting holes in the base frame H with four mounting screws A, coved spacers B, washers C, and locknuts D. Tighten securely.
4. If necessary, install the seat upholstery.

5.9 Adjusting Wheelbase Width

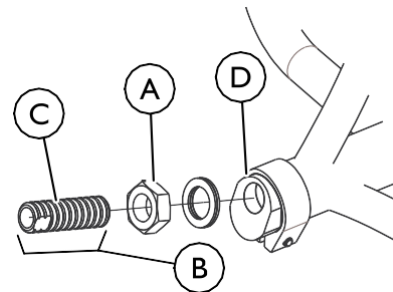


Perform this procedure on one side of the wheelchair at a time for ease of adjustment.

Fixed Axle Tube



The wheelbase width can be increased/decreased by 1-inch (2.54cm).



1. Remove the rear wheels
2. Torque the axle nut A to increase/decrease the wheelbase width.
3. Count the number of threads C showing on the axle bolt B.



The number of threads showing on the axle bolt should be equal on both sides of the wheelchair. Otherwise, wheelchair performance may be affected.

4. Repeat steps 2–3 for the opposite axle nut A and axle bolt B.



Axle bolt removed from axle tube D for clarity. It is not necessary to remove the axle bolt for this procedure.

5.10 Fork

Fork Replacement/Adjustment/Maintenance

Front Fork

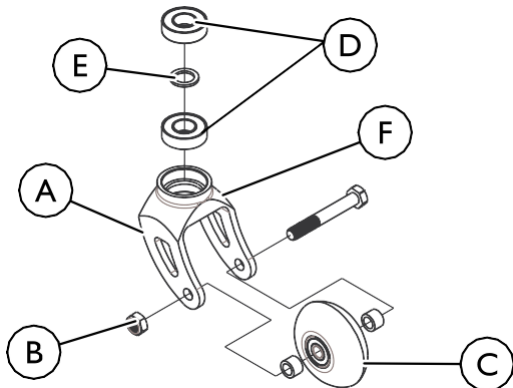


CAUTION!

- If the stem bolt is loose, threads on the bolt may be damaged.
- If this occurs, contact Top End.

The front fork should rotate freely without side-to-side movement. If any side-to-side movement occurs, tighten bolts immediately.

Pro™BB/Tennis Front Fork and Anti-tip Fork Replacement



1. Place the empty wheelchair upside down so the bottom of the front fork A is easily accessible.
2. Loosen and remove the nut B and caster C on the underside of the fork A.

1. Remove the two bearings D and spacer E from the fork bottom A by tapping with a screwdriver.



CAUTION!

- Do not remove the fork stem bolt (not shown). The bolt is permanently glued to the bottom of the fork.
- If the fork stem bolt becomes loose or is removed, contact Top End™ immediately for further instructions.

4. Install the two new bearings D and spacer E on bottom of fork A.
5. Install new nut B and caster C and tighten securely.

Schulte 7000/T-5™7000 Front Fork and Anti-tip Fork Replacement

1. Place the empty wheelchair upside down so the bottom of the front fork is easily accessible.
2. Loosen and remove the bolt and caster on the underside of the fork.
3. Remove the two bearings and spacer from the top of the fork by tapping with a screwdriver.

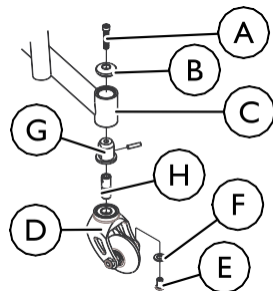


Leave the fork stem assembly in place.

Schulte 7000/T-5™ 7000 Front Fork and Anti-Tip Fork Stem Assembly Replacement



The Front Fork and Anti-Tip Fork Stem Assembly parts may be purchased separately.



1. Place the empty wheelchair upside down so the bottom of the front fork is easily accessible.
2. Loosen and remove the bolt A, split lock washer (not shown), headtube cap B, and anti-tip headtube C from the anti-tip fork assembly D.
3. Loosen and remove the chainring bolt E and washer F from the anti-tip fork assembly D.
4. Remove the headtube bushing and dowl pin assembly G and fork stem H from the anti-tip fork assembly D.
5. Install the new headtube bushing and dowl pin assembly G and fork stem H into the anti-tip fork assembly D.
6. Insert chainring bolt E and washer F and tighten securely.
7. Install new bolt A, split lock washer (not shown), headtube cap B, and anti-tip headtube C. Tighten securely.

5.1 I Adjusting Seat Height for Top End Pro Tennis, Top End Pro BB, and Top End Pro-2™ All Sport



WARNING!

RISK OF INJURY OR DAMAGE

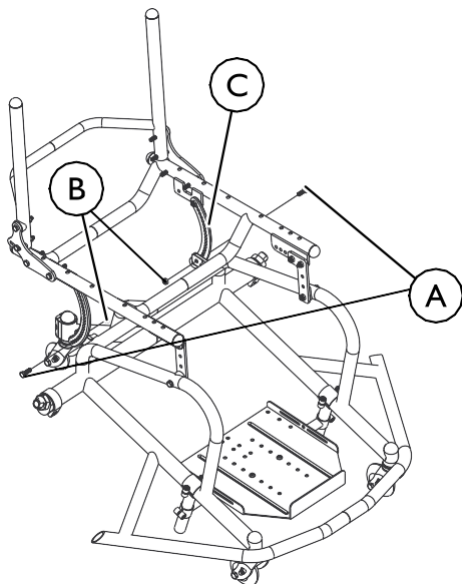
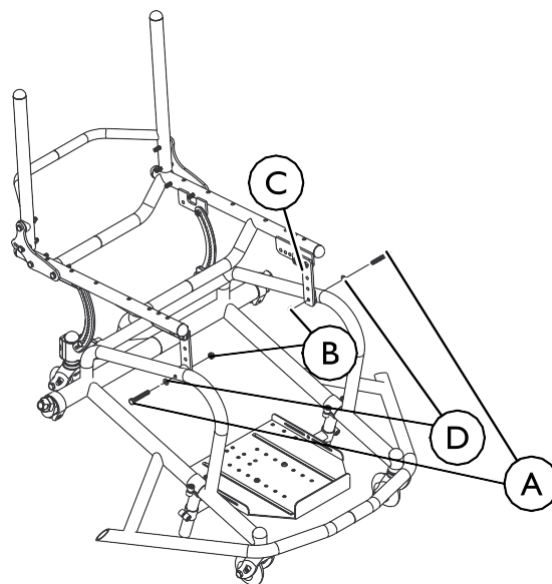
– After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise, injury or damage may occur.

Adjusting Front/Rear Seat Height

1. Remove the mounting screws A, (washer D if applicable) and locknuts B that secure the height adjustment brackets C to the base frame.
2. Perform one of the following:
 - Adjust rear of seat to desired height.
 - Adjust front of seat to desired height.
3. Secure height adjustment brackets C to the base frame with the two mounting screws A and locknuts B. Tighten securely.



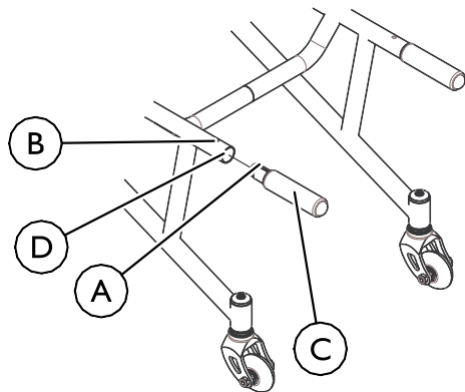
Refer to images on next page.

DETAIL "A" — REAR SEAT ADJUSTMENT**DETAIL "B" — FRONT SEAT ADJUSTMENT**

5.12 Removing/Installing the Seat Rail Extensions



Only applies to Pro Tennis



1. Facing the rear of the wheelchair, align the locking pin A with the hole on the wheelchair frame B.
2. Insert the seat rail extension C into the wheelchair frame D so the locking pin A is in the hole on the wheelchair frame B.
3. Pull lightly on the seat rail extension C to assure it is locked into the wheelchair frame D.

5.13 Replacing/Adjusting Tubular Footrest



WARNING!
RISK OF INJURY OR DAMAGE

- After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise, injury or damage may occur.
- ALWAYS perform this procedure in the presence of an assistant. The position of the footrest, backrest, back angle, the tautness of the back upholstery as well as the user's condition are directly related to the wheelchair's stability. Any change to one or any combination of the five may cause the wheelchair to decrease in stability. Use extreme caution when using a new seating position. The addition of anti-tippers may be required.
- Check all Allen screws that secure the footrest system to the wheelchair frame to make sure they are securely tightened before using the wheelchair. Especially if engaging in any contact sport.
- The footrest assembly MUST be at least 1-3/4-inches (4.45 cm) above the ground/floor to avoid hitting protruding objects when using this wheelchair.

1. Loosen the two Allen screws A that secure the footrest C to the wheelchair frame D and remove the existing footrest C.
2. Position the new/existing footrest C to the desired height.

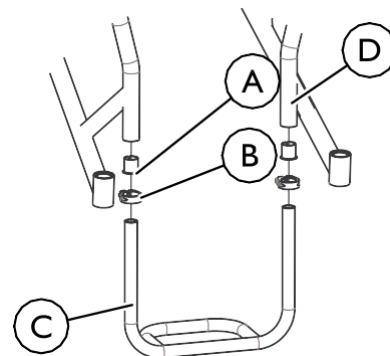
3. Tighten the Allen screws A that secure the footrest to the wheelchair frame.



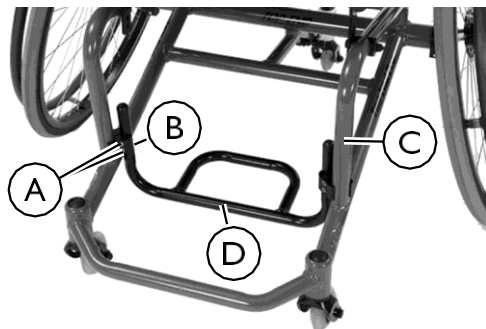
WARNING!
RISK OF INJURY OR DAMAGE

- The standard footrest has an open hoop. A footplate cover is recommended for wheelchair users that have leg spasticity or whose feet have a possibility of falling through the footrest hoop. A calf strap is provided with each wheelchair to prevent the feet from slipping backwards off of the footrest. Be sure the calf strap is secure when using the wheelchair.

4. Make sure the clamp B is tight.



5.14 Replacing/Adjusting Pro-2™ All Sport Tubular Footrest



Replacing

1. Loosen the two screws A in the clamp B and remove the clamp from the wheelchair frame C.
2. Slide the ends of the tubular footrest D out of the clamp.
3. Slide one end of the new tubular footrest into the hole in the clamp.
4. While the tubular footrest remains in the clamp, place the open end of the clamp on the wheelchair frame and tighten the two screws.
5. Align the other clamp on the opposite side of the wheelchair frame.



Clamps should be level across wheelchair frame.

6. Repeat STEP 4.

Adjusting

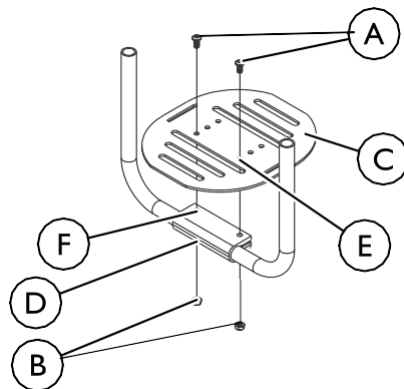
1. Loosen the two screws A in the clamp B on the wheelchair frame C.
2. Adjust the frame to the proper height by moving clamps vertically along the frame.
3. Securely tighten the two screws in the clamp.

5.15 Replacing/Adjusting Adjustable Angle Footplate



Available only on T-5™ 7000 Series and Schulte 7000 BB Series.

Depth and Angle



Depth

1. Remove the mounting screws A and locknuts B that secure the footrest C to the footrest clamp D.
2. Move the footrest C to the desired depth.

3. Align the holes in the footrest E with the holes in the footrest clamp F.
4. Secure the footrest C to the footrest clamp D with two mounting screws A. Tighten securely.

Angle

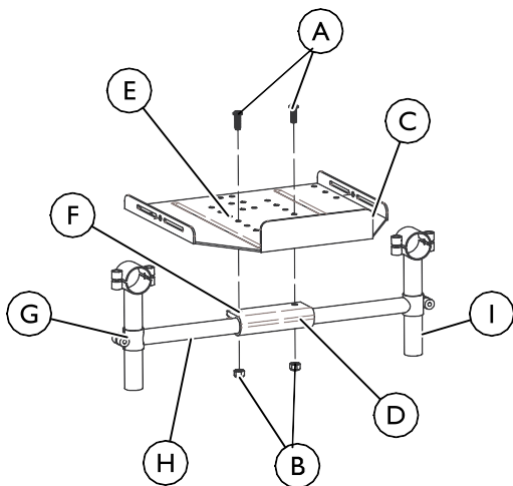
1. Loosen the two mounting screws A in the footrest C.
2. Adjust the angle of the footrest C.
3. Retighten the two mounting screws A. Tighten securely.

5.16 Adjusting the Platform Footrest System



This system is only available for the Tennis Pro™, Tennis Schulte 7000 series, and T-5™ 7000 Series Wheelchairs.

Height, Depth and Angle



Height

1. Loosen mounting screws G on either side of the footrest base H.
2. Adjust posts I vertically to the desired height.
3. Tighten the mounting screws G securely.

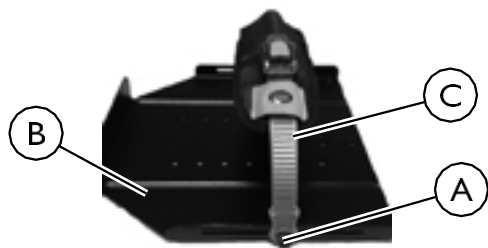
Depth

1. Remove the two mounting screws A and locknuts B that secure the platform footrest C to the footrest clamp D.
2. Move the platform footrest C to the desired depth.
3. Align the holes in the platform footrest E with the holes in the footrest clamp F.
4. Secure the platform footrest C to the footrest clamp F with the two mounting screws A. Tighten securely.

Angle

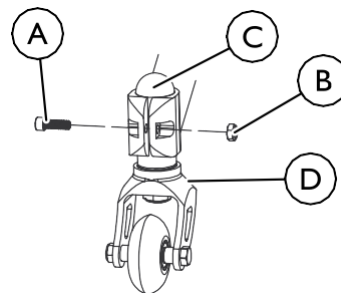
1. Loosen the two mounting screws A in the platform footrest C.
2. Adjust the angle of the platform footrest C.
3. Tighten the two mounting screws A. Tighten securely.

5.17 Removing/Installing the Footrest Click strap



1. Remove the two mounting screws and locknuts A from the sides of the footrest platform B.
2. Align the holes of the footrest click strap C with the holes on the outside of the footrest platform sides.
3. Secure with the two mounting screws A, locking washers, and locknuts. Tighten securely.

5.18 Adjusting Height of Swivel Anti-tip Caster

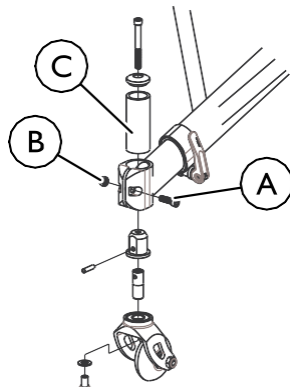


1. Loosen mounting screw A and locknut B in clamp.
2. Adjust the height of the anti-tip caster fork assembly D to the desired height by moving the bullet C up or down.
3. Securely tighten mounting screw A and locknut B.

5.19 Adjusting the Height of the Telescoping Anti-tip



This option is only available for the T-5™ 7000 series Wheelchair and the Pro™2 All Sport Wheelchair.



1. Loosen mounting screw A and locknut B in the side of the clamp.
2. Loosen the mounting screw A in the top of the clamp.
3. Adjust the height of the telescoping anti-tip castor fork assembly C to the desired height by moving the tube C up or down.
4. Securely tighten mounting screws A and locknut B.

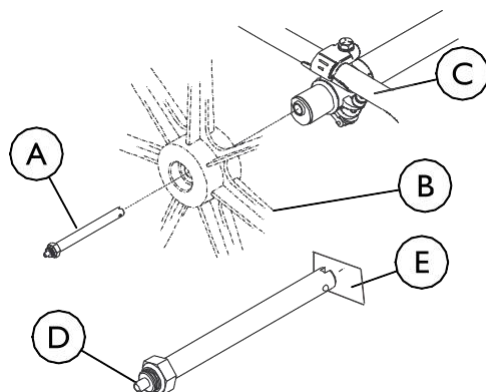
6 Service

6.1 Removing/Installing Rear Wheels



CAUTION!

- Changing the size of the rear wheels can affect the performance of the wheelchair. Contact Top End at the telephone numbers on the back of this manual before changing rear wheel size.



1. Perform one of the following:
 - Quick-release - push in the tip of the quick-release axle A and pull axle and wheel B away from the wheelchair C.
 - Quad-release - Lift up on the handle of the quad-release axle A and pull axle and wheel B away from the wheelchair C.
2. Repeat STEP 1 for the opposite rear wheel B.

3. Install the rear wheel wheels B onto the wheelchair C by reversing STEPS 1-2.



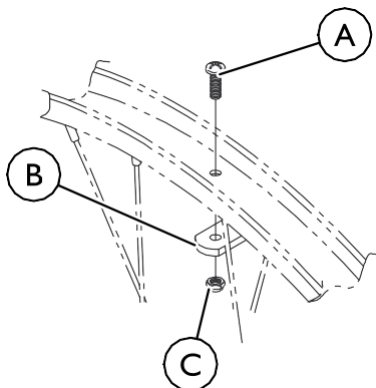
WARNING!

RISK OF INJURY OR DAMAGE

- Pull on the rear wheel B to make sure the detent pin D and locking pins E of the quick/quad-release axle A are fully released before operating wheelchair.
- Keep locking pins E clean.

4. If there is too much movement of the rear wheel assembly in a back-and-forth motion, refer to 5.6 Removing Play from Rear Wheels, page 43

6.2 Handrim Replacement



1. Remove the rear wheel from the wheelchair.



WARNING! **RISK OF INJURY OR DAMAGE**

- After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise, injury or damage may occur.
- The tire **MUST** be fully deflated before any disassembly procedures are performed. Otherwise, injury or damage may occur.

2. Remove all air from the tube by pressing down on the pin in the center of the valve stem.
3. While carefully holding the tire, tube and rim strip to one side, hold the allen screws A and remove the locknuts C that secure the handrim B to the rear wheel.
4. Remove the existing handrim B.

5. Install new handrim B by reversing STEPS 2-4.



WARNING! **RISK OF INJURY OR DAMAGE**

- **DO NOT** inflate tire until it is completely assembled.
- Otherwise, injury or damage may occur.

6. Inflate tire to correct psi rating on the sidewall of tire.
7. Install rear wheel to the wheelchair.
8. Repeat STEPS 1-7 for opposite rear wheel if necessary.

6.3 Repairing/Replacing Rear Wheel Tire/Tube



WARNING! **RISK OF INJURY OR DAMAGE**

- After any adjustments, repair or service and before use, make sure all attaching hardware is tightened securely. Otherwise, injury or damage may occur.
- Replacement of the tire or tube **MUST** be performed by a qualified technician.



CAUTION!

- Changing the size of the rear wheels can affect the performance of the wheelchair. Contact Top End at the numbers on the back cover before performing this procedure.

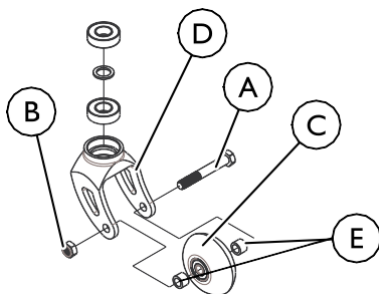


If replacing rear wheels with a different size than what was originally on the wheelchair, the front castor height must also be changed to keep the wheelchair frame parallel to the floor. Anti-tipper height must be adjusted to maintain 1-1/2 to 2-inch (3.81 to 5.08 cm) clearance between bottom of the anti-tipper wheels and the floor.

6.4 Replacing Front Caster/Wheels and Anti-tip Wheels

Front Caster/Wheels

1. Remove the bolt A and locknut B that secure the front caster/wheel C to the fork D.
2. Remove the front caster/wheel C and axle spacers E from fork D.
3. Install the new caster/wheel C, bolt A, locknut B and axle spacers E onto the fork D and securely tighten.
4. Repeat STEPS 1–3 for the opposite caster if necessary.



Anti-tip Wheels

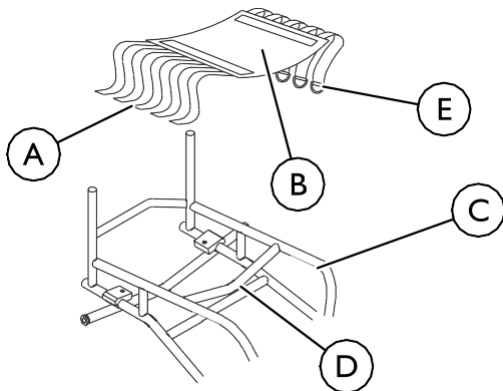
1. Remove the Allen screw A, locking washer B, and locknut C from the fork D.
2. Remove the anti-tip wheel E and axle spacers from fork D.
3. Install the new anti-tip wheel E, Allen screw A, locking washer B, locknut C, and axle spacers onto the fork D and securely tighten.
4. Repeat STEPS 1–3 for the opposite anti-tip wheel if necessary.

6.5 Replacing Adjustable Tension Seat Upholstery



WARNING! **RISK OF INJURY OR DAMAGE**

- The seat upholstery and/or cushion **MUST** be cleaned regularly and/or replaced if incontinence is frequent. The risk of pressure sores is significantly higher with seat upholstery that is wet and/or soiled.



1. Remove the seat cushion and back upholstery.
2. Place the wheelchair onto its two rear wheels and back posts.
3. Unlatch the five adjusting straps A that secure the seat upholstery B to the wheelchair frame C.
4. Remove the existing seat upholstery.

5. Place the wheelchair back onto all four wheels.



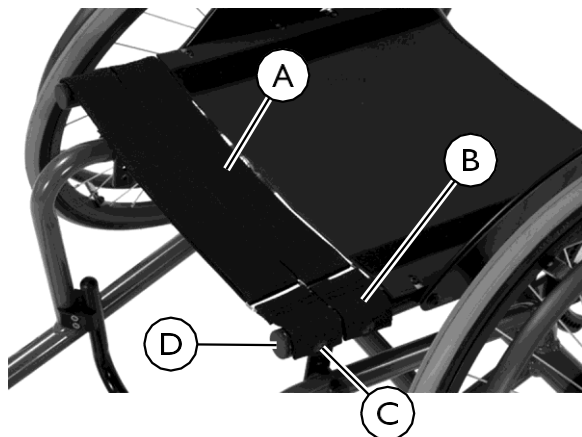
Right and left is determined by sitting in the wheelchair.


The seat upholstery B **MUST** be positioned with the five rear adjusting straps A towards the rear of the top crossbar D for proper installation.

Make sure the rear retaining flap is between the wheelchair frame and the back support brackets (adjustable backs only).

6. Position new seat upholstery onto the wheelchair frame C, ensuring the five adjusting straps A hang over the right and left sides of the wheelchair.
7. Pull the front adjuster straps A around and under the wheelchair frame top bars C.
8. Slip front adjuster strap A through corresponding anchor loop E and adjust the seat upholstery B to desired tension. Secure the adjustment straps A.
9. Place the wheelchair onto its two rear wheels and back post.
10. Securely latch the four remaining adjuster straps A together.
11. Return wheelchair to upright position.
12. Reinstall the seat cushion and back upholstery.

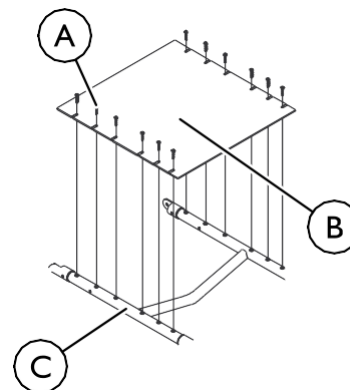
6.6 Installing/Replacing the Pro-2™ All Sport Adjustable Seat Upholstery



 Locknut not shown.

1. Remove the seat cushion and back upholstery.
2. Position new seat upholstery A onto the wheelchair frame ensuring the adjusting straps B hang over the right and left sides of the wheelchair.
3. Install the bolt C through hole in the adjusting strap and wheelchair frame D on the right side.
4. Securely tighten locknut and bolt.
5. Repeat STEPS 3 and 4 on the left side.

6.7 Replacing Pro-2™ All Sport Screw-on Seat Upholstery

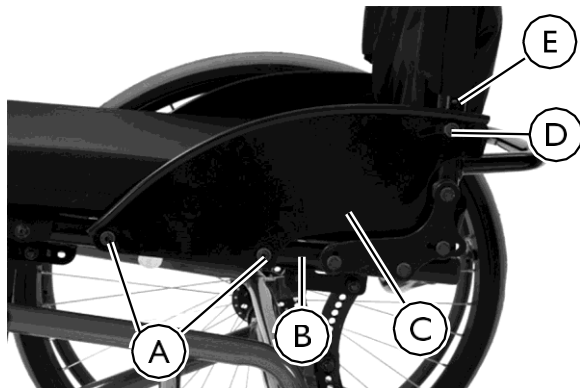


1. Remove the seat cushion from the wheelchair.
2. Remove the twelve mounting screws A that secure the existing seat upholstery B to the seat frame C.
3. Remove the existing seat upholstery B.
4. Place the new seat upholstery B onto the seat frame C and secure with the twelve mounting screws A.

6.8 Removing/Installing Screw-On Side Guards



Standard only on the Pro-2™ All Sport Wheelchair.



Removing

1. Loosen locknuts on the two screws A through the seat frame B of wheelchair.
2. Remove screws from the seat frame and side guard C.
3. Loosen locknut on the screw D through the back frame E of wheelchair.
4. Remove screw from the back frame and side guard.

Installing

1. Align holes in sideguard with holes in seat frame of wheelchair.
2. Place screws through holes in sideguard and seat frame. Tighten securely.

3. Align hole in sideguard with hole in back frame of wheelchair.
4. Place screw through hole in the side guard and seat frame. Tighten securely.

7 Troubleshooting

7.1 Troubleshooting

Problem	Possible cause	Action
Chair spins too quickly	COG may be off.	Tighten back upholstery. Change COG (if equipped). Change foot position.
The wheelchair veers left or right	Incorrect tire pressure	Check tires for correct and equal pressure. If necessary, correct tire pressure,
	Both castors not on the ground. Incorrect height of anti-tip castor	Check that both castors contact the ground at the same time. Check fork hardware and height of anti-tip castor.
	Toe in/toe out difference is greater than 1/2 inch (1.27 cm)	Check toe in/toe out. Adjust until the difference is less than 1/2 inch (1.27 cm).
The wheelchair loses contact with floor	Tire pressure may be incorrect.	Check tires for correct and equal pressure. If necessary, correct tire pressure,
	Both castors not on the ground. Incorrect height of anti-tip castor	Check that both castors contact the ground at the same time. Check fork hardware and height of anti-tip castor.
Sluggish turn or performance	Tire pressure may be incorrect.	Check tires for correct and equal pressure. If necessary, correct tire pressure.
	Fork hardware is incorrectly adjusted.	Check fork hardware/bearings. Adjust if necessary.
	Toe in/toe out difference is greater than 1/2 inch (1.27 cm)	Check toe in/toe out. Adjust until the difference is less than 1/2 inch (1.27 cm).
Castor flutters	Incorrect tire pressure	Check tires for correct and equal pressure. If necessary, correct tire pressure,
	Fork hardware is incorrectly adjusted.	Check fork hardware/bearings. Adjust if necessary.
	Both castors not on the ground. Incorrect height of anti-tip castor	Check that both castors contact the ground at the same time. Check fork hardware and height of anti-tip castor.

Problem	Possible cause	Action
Wheelchair squeaks and/or rattles	Fork hardware is incorrectly adjusted.	Check fork hardware/bearings. Adjust if necessary.
	Loose hardware.	Check spokes, nipples, all attachment hardware, handrim and sideguard hardware. If necessary, tighten hardware.
Looseness in wheelchair	Fork hardware is incorrectly adjusted.	Check fork hardware/bearings. Adjust if necessary.
	Loose hardware.	Check spokes, nipples, all attachment hardware, handrim and sideguard hardware. If necessary, tighten hardware.

8 Maintenance

8.1 Suggested Maintenance Procedures



WARNING!

- After any adjustments, repair, or service, and before use, make sure all attaching hardware is tightened securely. Otherwise, injury or damage may result.
- DO NOT overtighten hardware attaching to the frame. This could cause damage to the frame tubing.

1. Before using your wheelchair, make sure all nuts and bolts are tight. Check all parts for damage or wear and replace. Check all parts for proper adjustment.
2. Keep quick/quad-release axles free of dirt and lint to ensure positive locking and proper operation.



WARNING!

- DO NOT use WD-40®, 3-in-1 oil® or other penetrating lubricants on any moving parts. Otherwise, binding and/or damage to the wheelchair can occur.

3. Clean quick-release axles and receivers once a week with a Teflon® lubricant.



WARNING!

- DO NOT use the wheelchair unless it has the proper tire pressure (p.s.i.). DO NOT overinflate the tires. Failure to follow these suggestions may cause the tire to explode and cause bodily harm.

4. Recommended tire pressure is listed on the side wall of the tire. If tire needs replaced, contact a local bike shop for replacement.



CAUTION!

- As with any vehicle, the wheels and tires should be checked periodically for cracks and wear and should be replaced.

5. The wheels, castors and tires should be checked periodically for cracks and wear and should be replaced when necessary. Contact a qualified technician or Top End customer support at the telephone numbers on the back of this manual.
6. Regularly check for loose spokes in the rear wheels. If loose, have them adjusted. Contact a qualified technician or Top End customer support at the telephone numbers on the back of this manual.
7. Periodically check handrims to ensure they are secured to the rear wheels.
8. Periodically check castor wheel bearings to make sure they are clean and free from moisture. Use a Teflon® lubricant if necessary.
9. Check upholstery for sagging, rips, or tears.
10. Clean upholstery with mild soap and water.



Some countries require the returned product cleaned and sanitized for service. Please consult your dealer prior to returning product.

9 Options

9.1 Installing the Clamp-on Sideguard

1. Attach two clamps H to the wheelchair frame D and one clamp H to the back post E.
2. Align the holes in the sideguard G with the holes on the clamps H.



3. Insert the mounting screws A into the wheelchair frame D and back post E and secure with locking washers C and locknuts B.
4. Repeat for the other side, if necessary.

9.2 Click strap for Pro™ Tennis and Pro™ BB Basketball

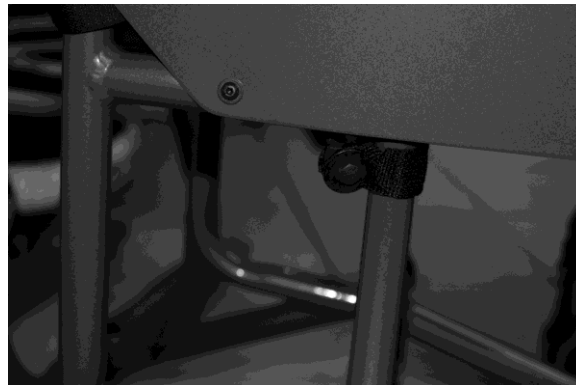
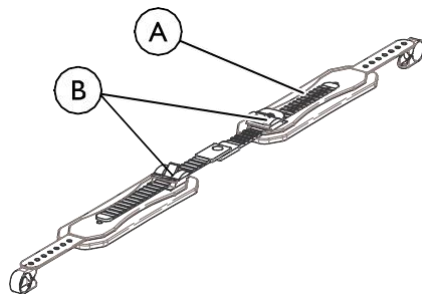
1. Remove bolt from latch kit closest to front of chair.
2. Insert bolt through hole in click strap, latch kit, and chair. Tighten securely.
3. Repeat for opposite side.

Click strap for Pro BB/Pro Tennis Series attached to seat or back frame using back bracket.

9.3 Click strap for Schulte 7000 BB Series

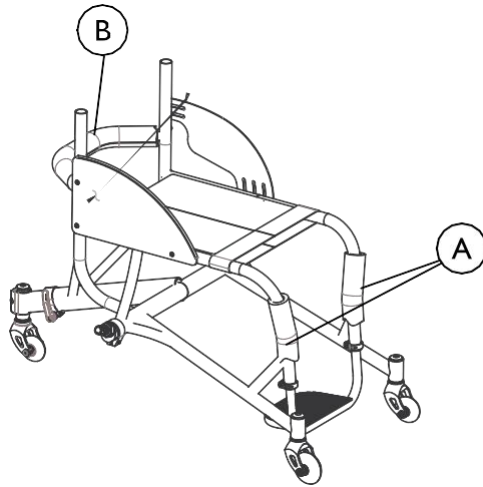
Attach click strap A with web mount to the seat or back frame as shown in photo below.

Press the release button B to disengage the click strap A.



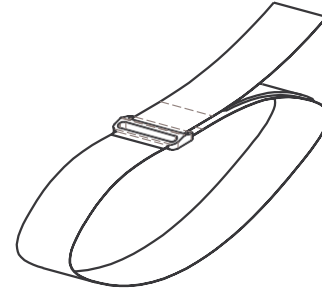
9.4 Additional Options

Front A and Rear B Frame Protectors



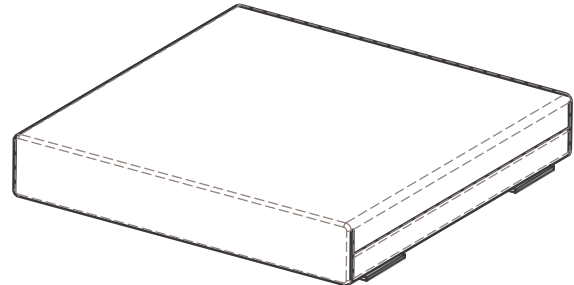
Foam pieces covered in nylon wrapping the front and rear frames and fastened with hook and loop fasteners.

D Ring



Strap encircles chair. End of strap and D Ring should be in front of chair.

Seat Cushion



Attach seat cushion to seat using hook and loop fastener.

10 Warranty

10.1 Warranty

United States Limited Warranty

PLEASE NOTE: THE WARRANTY BELOW HAS BEEN DRAFTED TO COMPLY WITH FEDERAL LAW APPLICABLE TO PRODUCTS MANUFACTURED AFTER JULY 4, 1975.

This warranty is extended only to the original purchaser/user of our products.

This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

Top End warrants the frames when purchased new and unused to be free from defects in materials and workmanship for a period of three (3) years from the date of purchase from Top End or a dealer, with a copy of the seller's invoice required for coverage under this warranty. Top End warrants the upholstered materials (seat and back) and remaining components of this product when purchased new and unused to be free from defects in materials and workmanship for a period of thirteen (13) months from date of purchase from Top End or a dealer, with a copy of the seller's invoice required for coverage under this warranty.

All component parts including, but not limited to caster forks, and upholstery are warranted against defects in materials and workmanship for a period of one year from the date of purchase except bushings, bearings, and tires/tubes. If within such warranty period any such product shall be proven to be defective, such product shall be repaired or replaced, at Top End's option, with refurbished or new parts. This warranty does not include any labor or shipping charges incurred in replacement part installation or repair of any such product. Product repairs shall not extend this warranty. - coverage for repaired product shall end when this limited warranty terminates. Top End's sole obligation and your exclusive remedy under this warranty shall be limited to such repair and/or replacement.

LIMITATIONS AND EXCLUSIONS: THE FOREGOING WARRANTY SHALL NOT APPLY TO SERIAL NUMBERED PRODUCTS IF THE SERIAL NUMBER HAS BEEN REMOVED OR DEFACED, PRODUCTS SUBJECTED TO NEGLIGENCE, ACCIDENT, IMPROPER OPERATION, MAINTENANCE OR STORAGE, COMMERCIAL OR INSTITUTIONAL USE, PRODUCTS MODIFIED WITHOUT TOP END'S EXPRESS WRITTEN CONSENT, INCLUDING, BUT NOT LIMITED TO, MODIFICATION THROUGH THE USE OF UNAUTHORIZED PARTS OR ATTACHMENTS; PRODUCTS DAMAGED BY REASON OF REPAIRS MADE TO ANY COMPONENT WITHOUT THE SPECIFIC CONSENT OF TOP END, OR TO A PRODUCT DAMAGED BY CIRCUMSTANCES BEYOND TOP END'S CONTROL, AND SUCH EVALUATION WILL BE SOLELY DETERMINED BY TOP END. THE WARRANTY SHALL NOT APPLY TO PROBLEMS ARISING FROM NORMAL WEAR OR FAILURE TO ADHERE TO THESE INSTRUCTIONS.

THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES WHATSOEVER, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE,

AND THE SOLE REMEDY FOR VIOLATIONS OF ANY WARRANTY WHATSOEVER, SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT PURSUANT TO THE TERMS CONTAINED HEREIN. THE APPLICATION OF ANY IMPLIED WARRANTY WHATSOEVER SHALL NOT EXTEND BEYOND THE DURATION OF THE EXPRESS WARRANTY PROVIDED HEREIN. TOP END SPORTS LLC. SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES WHATSOEVER.

THIS WARRANTY SHALL BE EXTENDED TO COMPLY WITH STATE/PROVINCIAL LAWS AND REQUIREMENTS.

10.2 Canadian, Australian, New Zealand and European Limited Warranty and Customer Service Information

Customer Service and Limited Warranty Information

Terms and conditions of the warranty are part of the general terms and conditions particular to the individual countries in which this product is sold.



Manufactured by:

Top End Sports and Recreation Products

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Pinellas Park, Florida

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(800) 532-8677

www.topendsportsllc.com



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