



# Operating Manual



**Distributor/Rep:**

This manual must be given to the caregiver responsible for this chair and its occupant.

**Caregiver:**

Before using this chair, read this manual thoroughly and save for future reference.

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## Chair: SPECIFICATIONS

Item	Standard
Weight Capacity	300 lbs
Seat Depth	18"
Seat Height	20"
Seat Width	19"
Overall Width	26"
Degrees of Seat Tilt	Infinitely adjustable up to 28°
Arm Type	Fixed
Front Casters	5" Swivel, total lock
Rear Casters	5" Swivel, (1 tracking)
Weight	Approx. 65 lbs
Legrest	Angle Adjustable, Independently Elevating
Seat / Back Surface	BRODA Comfort Tension Seating®
Padding	Removable Padding (seat and back pad, neckrest, side panels, legrest)

## GENERAL INSTRUCTIONS

The instructions contained herein provide guidance on the safe and correct operation of the BRODA LT Tilt Chair. Safety measures as described in Section 1 must be observed when operating the chairs' functions or moving the chair.

Every person that is involved with the operation and maintenance of the BRODA Chair, including the patient's family members, must read this instruction manual prior to moving or operating the functions of this chair. A copy of this instruction manual must always be available to these people. No person, including the patient's family members, who is unfamiliar with or is unwilling or unable

to adhere to the safety and operating instructions contained herein, should be permitted to operate or move the chair.

The BRODA chairs' intended use is to provide mobility to persons that may be limited to a sitting position. It is highly recommended that someone such as a nurse, nursing home staff or family member operate this device to transport patient(s) on even surfaces for safety and effectiveness. The BRODA Chair will be primarily used, but not limited to use, by residents in Nursing Homes and institutional settings. It is the responsibility of the user, with the help of his/her qualified healthcare professional, to determine the type of chair required for the individual.

The safety and operating instructions that are included in this manual are very important to the safe and effective operation of the BRODA Chair. Safety requirements that are detailed in Section 1 must be followed at all times.

BRODA accepts no liability whatsoever for damage or disruptions caused by operating errors, failure to provide proper maintenance, or the disregard of the instructions contained in this manual. This also includes the patient's specific instructions.

BRODA reserves the right to make changes to the specifications of the dimensions, functions, and components of its products. Any diagrams or drawings provided are not necessarily exactly the same as the delivered products.

Each BRODA Chair is provided with a unique, identifying serial number. This serial number should be maintained on the chair and with your equipment records for future reference to obtain replacement parts or additional copies of the operating instructions.

## **SECTION 1 - SAFETY REQUIREMENTS & DETAILED WARNINGS**

This section must be read by all operators of the BRODA Chair before they attempt to use the product. It is the caregiver's primary responsibility to ensure that only people who are familiar with the information contained in this manual are authorized to operate or move the chair.

Before operating the chair with the patient seated in it, make sure the patient is properly positioned to maintain patient and caregiver safety, as well as maintaining the maximum stability of the chair.

Caregivers must be prepared to support the weight of the patient in the chair when tilting and returning the occupant of the chair to the full upright position. Always make sure to use proper body mechanics while operating the chair, to avoid injury.

All service and maintenance adjustments to the chair should be performed only while the chair is unoccupied.

Immediately after service and adjustments, and before use, always ensure all components of the chair are securely tightened and in proper working order, otherwise damage or injury may occur.

Always determine your safety limits by practicing maneuvers you would perform using the chair, such as bending, leaning, transferring, and reaching, in the presence of a qualified healthcare professional.

Do not lean forward out of the chair any further than the length of the armrests. Make sure the casters are pointing forward when leaning forward. Otherwise, the chair may tip over.

Do not lift the chair by any removable parts. This action may result in damage to the chair or injury to the user.

Do not attempt to pick up objects on the floor by leaning forward and reaching down between your knees. This may cause the chair to tip forward.

Do not lean backward over the chair back when in a tilt position. Doing so may cause the chair to tip over.

Do not attempt to propel the chair from a tilted position. Otherwise the chair may tip over.

Do not attempt transfers from a tilted position. Otherwise the chair may tip over.

Do not attempt to maneuver or park on slopes greater than 9°. Otherwise the chair may tip over.

Always engage the caster locks before attempting to transfer in or out of the chair. The caster locks should not be used to stop a moving chair, as the chair may tip over.

Do not attempt to climb or descend slopes greater than 9°, go over curbs or obstacles, operate on roads or streets, or use an escalator to move this chair between floors. Doing so may cause the chair to tip over and cause bodily harm to you, the occupant of the chair, or cause damage to the chair itself.

Do not stand on the elevated calf support. When performing transfers, or getting in or out of the chair, ensure the calf support is fully closed to the underside of the chair.

### **1.1 Before First Use WARNING**

The BRODA LT Tilt Chair is considered ready to use after purchaser inspection, functional testing, and when all training requirements have been met by qualified caregivers after receipt of the Chair. Some assembly might be required as delivered. If the Chair does not appear to be in “ready to use” condition upon receipt, immediately contact your supplier and do not put the Chair into service until after your concerns have been resolved.

This manual must be read thoroughly by the caregiver(s) directly responsible for the patient’s nursing care before the Chair is put into service. This manual must also be read thoroughly by new caregivers, prior to the first time a new caregiver operates or moves the Chair, once the Chair has been put into service. The patient’s family members, who share some of the responsibility for the patient’s care, are considered a caregiver only after they have read this manual, received instruction on the Chair’ safe use by a professional caregiver, and a caregiver directly responsible for the patient’s care has given their approval.

The Chair must be visually inspected for damage, missing parts, and loose fittings (fasteners) prior to first use or testing the Chair’ functions. Functional testing must be successfully completed after visual inspection and before first use. These obligations apply both to the first use of the Chair and to all subsequent uses.

An in-service on the operation and safety issues, as described in this manual, must be given to the patient’s caregivers prior to its first use.

### **1.2 Application WARNING**

The BRODA Chair will be primarily used, but not limited for use by residents in a Nursing Home or institutional setting. The suitability and application of this BRODA Chair is to be determined by a professional caregiver who is familiar with the seating needs of the patient using the Chair. Any other use of the Chair is excluded from possible liability claims, and may void the warranty.

The Chair is not to be used in the shower. Use in the shower will void the warranty.

BRODA does not recommend that the user of this Chair be transported in vehicles while in the Chair and that appropriate seating in vehicles is provided for the user as made available by the auto industry. BRODA does not recommend or endorse any wheelchair transportation system.

The chair is not explosion resistant and may only be used where there are no inflammable gases or liquids present such as anesthetics or petroleum based cleaners.

### **1.3 Legal Restrictions WARNING**

This BRODA Chair may only be used as described in this manual and with proper regard for recognized healthcare and work place safety and accident prevention practices.

The Chair may only be moved or operated by caregivers or family members who can guarantee its correct operation because they have read and fully understand this manual and the safety issues discussed herein.

#### **1.4 Position of Chair “Danger of Falling” WARNING**

After a patient is transferred into a chair, assess the amount of tilt required. We recommend that the chair’s seat be tilted sufficiently to prevent the patient from sliding or falling forward off the chair. The amount of seat tilt used should be determined by the patient’s caregiver who is responsible for seating.

We recommend that the patient’s legs be correctly positioned on the calf support to prevent the patient from sliding or falling forward off the chair. The amount of elevation used should be determined by the patient’s caregiver who is responsible for seating.

#### **1.5 Position of Seat Tilt “Danger of Tipping” WARNING**

In an attempt to prevent agitated patients from falling out of the chair or tipping the chair forward, the caregiver may decide to tilt the chair. The amount of seat tilt used should be determined by the patient’s caregiver who is responsible for seating. Always ensure the patient is properly positioned in the chair before tilting.

Before operating the seat tilt, carefully read through section 1.8 Repositioning of Patient “Danger of Pinching.”

#### **1.6 Chair Placement “Danger of Tipping” WARNING**

We recommend that when a patient has been moved to their destination, the chair is placed so the patient cannot reach handrails or other objects, fixed or moveable. This is to prevent the patient from pulling the chair over or pulling themselves off the seating surface, and to prevent the patients from pulling moveable objects onto the chair and onto themselves.

We recommend that the chair be used in a supervised area to prevent untrained patients, caregivers, or third parties from unauthorized operation, movement, or unsafe actions such as sitting, standing or leaning on the tilted back, footrest, or the armrests. Individuals should not stand on the seat. These actions, if not prevented, could put the chair at risk of tipping or may damage the chair.

Any adjustments or modifications to the chair must only be performed by individuals qualified to do so.

We recommend that a chair only be used on a level surface to minimize the risk of tipping over.

#### **1.7 Locking Casters “Danger of Falling” WARNING**

The caster locks must always be applied when:

- The chair is not in use.
- A patient is being transferred (moved) into or out of the chair.
- The patient in the chair is not being moved by a caregiver, however,

It is important to note that if the caster locks are applied while the patient is in the chair, the caregiver does not leave the patient unattended, especially those patients who have the capability or tendency to propel the chair on their own, and/or those who may be agitated. This could cause harm to the patient if they attempt to propel the chair while the caster locks are applied.

Failure to follow these instructions will unnecessarily increase the risk of serious falls by patients, caregivers, or third parties caused by the chair unintentionally moving.

### **1.8 Re-Positioning of Patient “Danger of Pinching” WARNING**

BRODA Chairs offer the benefits of seat tilt and a calf/leg rest. During the movement of any of these functions, the following safety measures must be observed:

- The patient’s arms must be securely positioned inside the chair frame with their hands on their body.
- The patient’s legs must be correctly positioned on the calf rests.
- All of the chair’s caster locks must be applied.
- Only one caregiver at a time attempts to operate the chair’s functions.
- Only one chair function is operated at a time.
- The patient’s and caregiver’s body are clear of all pinch points before operating any of the chair functions

Failure to follow these safety measures can put the patient’s or caregiver’s limbs at risk of injury. Patients who may be unaware of their body position or unable to maintain a safe body position have the highest risk of injury from pinching and caregivers should be more cautious with these patients. A second caregiver may be required to ensure the safety of these patients during these operations.

### **1.9 Accidental Motion “Danger of Falling or Collision” WARNING**

We recommend BRODA Chairs for indoor use within a long-term care institution and where there is insufficient slope to cause the chairs to move unaided. Chairs used where the surface is uneven or sloped are at risk of unintended movement and could become a serious danger to the patient, caregiver(s), or a third party. We recommend that BRODA Chairs are located away from stairwells, elevators, and exterior doorways. Placing the patient near handrails, tables or stationary objects while the caster locks are in place should be done with caution and should be supervised. Failure to do so may lead to injury due to the patient grabbing hold of the object and either pulling the object on top of them, or causing the chair to tip over.

### **1.10 Improper Restraint Use “Risk of Serious Injury” WARNING**

We recommend that alternatives to physical restraints be used with patients while seated in the chair except under the specific instructions of the patient’s primary caregiver and with permission of the patient’s family or guardian. Physical restraints have been identified as a common cause of serious injury to patients while they are seated. We recommend that the primary caregiver responsible for seating first considers the re-positioning options available in the chair to reduce the risks of sliding, falling, or self-injury.

If a physical restraint is determined to be appropriate to prevent sliding or falling out of the chair, BRODA can supply a seat belt. In all cases, it is the patient’s primary caregiver who must take responsibility for the safety of the patient if restraints are used.

### **1.11 Improper Use WARNING**

The improper use of the chair can be dangerous to the patient, caregiver, or a third party through:

- Unauthorized operation of the chair’s functions.
- Unauthorized movement of the chair.
- Inappropriate use of the chair by a patient who has not been assessed by the caregiver responsible for their seating.
- Attempted simultaneous operation of multiple chair functions by one or more caregivers.
- Attempting to move the chair with the caster lock(s) applied.
- Applying caster lock(s) while chair is in motion.

- Leaving the patient unattended in the chair near other objects.
- Leaving a potentially agitated patient in an unsupervised area.
- Leaving a patient in a chair on a sloping surface.
- Leaving a chair unattended on a sloping surface.
- Leaving a chair unattended without setting caster locks.
- Transferring a patient into or out of the chair without setting caster locks.
- Using the BRODA chair at temperatures below 0° Celsius (32° Fahrenheit).

## 1.12 Cleaning

BRODA Chairs should be wiped clean with soap and water. Diluted household strength ammonia or chlorine based cleaner, as well as a hospital grade cleaner may be used if necessary.

Refer to the following guide for cleaning certain staining agents (Applies to the Permablok3® vinyl, as per the vinyl manufacturer's recommendations). The frame and components of the chair can be cleaned using the same procedure as the vinyl. The steps below are also located in the Cleaning Guide found on the back of the Broda chair.

### Staining Agent Cleaning Procedure

Eye Shadow / Mascara	Step 1
Grease / Suntan Lotion / Chocolate	Step 1
Blood / Bodily Fluids	Step 2
Red Lipstick	Step 2
Oil Base Paint / Tar / Asphalt	Step 3
Other Tough Stains	Step 4 or 5*

**Step 1:** Remove excess spill with a damp cloth. Clean with a 1:1 mix of Ivory® liquid and water. Rinse with clean water and dry.

**Step 2:** Use a straight application of concentrated cleaners such as Formula 409® or Fantastik® Spray Cleaner. Then wipe with a clean cloth. If using a hospital grade cleaner, follow the diluting instructions on the label.

**Step 3:** Use a 1:1 mix of ammonia and water or a 1:4 mix of bleach and water. Rinse with clean water and dry.

**Step 4:** Use a straight application of naphtha (lighter fluid). Rinse thoroughly with clean water and pat surface dry.

**Step 5:** Use a 1:1 mix of isopropyl alcohol and water. If the stain persists, use straight alcohol. Rinse thoroughly with clean water and pat dry. If the stain remains, use a 1:1 mix of acetone and water. Rinse with clean water and pat surface dry.

**\*Note:** for cleaning that requires steps 4 or 5 – Use a soft cotton cloth saturated with the cleaning material and rub the stain in circles 10 times. Pat dry with another soft cotton cloth, and check results.

Pay close attention to the frame, sockets, fasteners, parts and casters, as well as the padding for an even, thorough clean.

Thoroughly clean all removable padding, as well as the frame and components around the parts and padding that have been removed.

BRODA Chairs should not be cleaned with petroleum based cleaners. Any petroleum based products that come in contact with any vinyl surface should be removed as quickly as possible. Petroleum based products make vinyl brittle and will damage the seating surface and cushions.

Metal parts and cushions should be wiped completely dry after cleaning. Do not launder vinyl padding.

Do not allow the chair to air dry. Leaving the chair to air dry and not ensuring the entire chair is completely dry may cause the frame and components to rust. Solvents such as those found in spray lubricants should not be used on BRODA Chairs as they can damage moving parts. Frequency and method of cleaning the chairs should be determined by facility infection control protocols. If visibly soiled, thoroughly clean the chair immediately as per the cleaning instructions in this manual.

The cleaning instructions in this manual are guidelines only. Results may vary under actual conditions. The information does not relieve the user of proper and safe use of the product and all cleaning agents and consideration for the overall cleaning maintenance of the chair. Cleaning and care instructions must be followed in conjunction with facility infection control protocols.

BRODA will not accept warranty or liability claims on chairs that have not been cleaned according to the instructions or cared for in proper regard for patient, caregiver and third party safety and hygiene. The use of certain agents may be harmful to the surface appearance and lifespan of the vinyl. BRODA assumes no responsibility resulting from the use of such cleaning agents to the vinyl.

Touch up paint is available for the powder coated frame. Please call Broda's Customer Service Department if touch up paint is required. Do not leave BRODA chairs outdoors as the frame is not UV protected. Leaving the chairs outdoors could cause the paint to peel.

Formula 409® is a trademark of the Clorox Company.  
Fantastik™® is a trademark of DowBrands, Inc.  
Trademark of the Dow Chemical Company.  
Ivory® is a trademark of Proctor and Gamble

### **1.13 Preventative Maintenance WARNING**

The maintenance on a BRODA Chair will vary with the amount of use and the condition of the patient using the chair. We recommend regular visual inspection for signs of wear, damage, loose or missing fittings, and other safety concerns. Also, periodic testing of the chair's functions is appropriate. If a breakage, defect, or operational problem is detected, the chair must be repaired, inspected and tested for function before it is returned to service. For regular use, the Chair should be inspected and tested on a bimonthly basis. The chair should be inspected and tested as often as each use if the chair is used:

- By aggressive or agitated patients.
- By patients who have involuntary movement.
- On irregular or sloped surfaces.
- By any unauthorized person.

Do not use any lubricants that contain solvents. Solvents will damage many of the moving components in the chair. If necessary a white, food grade grease (lubricant) may be used on the sliding components in the chair. Do not use spray lubricants as they contain solvents.

### **Inspection**

We recommend regular visual inspection of signs of wear, damage, loose or missing fittings, and other safety concerns. If a breakage, defect, or operational problem is detected, the chair must be repaired inspected and tested for function before it is returned to service.

We recommend that the chair should be inspected as often as each use, if there is any reason to be concerned about the possibility of increased wear or loose or missing fittings. At a minimum,

in regular use, the chair should be inspected on a bimonthly basis. The visual inspection procedure should include at least the observation of the following fasteners:

- The bolts and nuts, which attach the casters to the chair base.
- The bolts and nuts, which attach the cylinder that positions the seat tilt.
- The bolts and nuts, which attach the chair seat to the chair base.

In addition, the visual inspection procedure should include the following parts:

- The cylinder that positions seat tilt
- The handles and cables
- The caster locks

We also recommend the visual inspection procedure include checking any installed accessories.

### **Functional Testing**

**We recommend that the chair operation be tested when unoccupied.** The testing may be as often as each use if there is any reason to be concerned about the possibility of above normal wear or damage to the chair's components.

If the caregiver performing the functional testing believes that any function is not operating correctly, the chair should be taken out of service until a satisfactory functional test can be completed.

**The caregiver performing the testing should be aware that the seat tilt operations will be more difficult when the chair is unoccupied.**

When performing repairs or maintenance, do not use any lubricants that contain solvents. Solvents will damage many of the moving components on the chair. If necessary, a white, food grade grease lubricant may be used on the sliding components on the chair. Do not use any spray lubricants on any part of the Chair.

#### **1.14 Patient Specific Instructions WARNING**

The professional caregiver responsible for the patient's seating shall add such additional instructions as are necessary for the safety and comfort of the patient using the chair based on their professional experience and knowledge of the patient's specific conditions and requirements. These instructions form a part of the Safety Requirements for using the chair with that patient and must be made available to all caregivers.

### **Safety and Handling of BRODA Chairs**

This manual describes the most common procedures and techniques involved in the safe handling and maintenance of BRODA Chairs. It is important to understand, both conceptually and physically, the handling of the chair in order to prevent any injury to body, or misuse of the chair. The information provided here is to be regarded as a general guide and is based on techniques that have proven to be beneficial and successful by many users.

### **Stability and Balance**

Any activities that require movement in the chair have an effect on the center of gravity of the chair. Therefore, it is very important not to lean forward out of the chair any further than the

length of the armrests. Also, do not attempt to reach for objects on the floor by moving forward in the seat, or leaning over between the knees to pick them up.

If the client does need to lean forward, ensure that the front casters are pointing forward to maintain the stability of the chair. You can do this by pushing forward and then reversing it in a straight line.

Leaning over the top of the back will change the center of gravity and may cause the chair to tip over. It is advisable to position the chair as close as possible to the desired object and then point the front casters forward, then the client can reach back only as far as their arm will extend without changing their sitting position.

When attempting a transfer in or out of the chair, reduce the distance of the gap between the chair and the destination of the transfer. Ensure the casters are turned parallel to the object the client is transferring onto, and that the caster locks are engaged.

It is recommended that you practice bending, reaching and transferring activities with the help of a qualified healthcare professional before attempting such activities on your own. This will familiarize yourself and your caregiver with the particular safety limits of the chair.

It is important that if assistance is required with the use of the chair, that the caregiver remember to bend their knees, and keep their back straight whenever tipping the chair, or pushing the chair over curbs or other obstacles.

Lifting the chair by any removable or detachable parts may result in injury to the user, and will cause damage to the chair. Check for any signs of loose fittings periodically to ensure parts are secure. If parts are not secure, contact a qualified technician to assess, and repair the chair before further use. Using the detachable parts to move the chair or as lift supports is not advisable, as they may be inadvertently released causing possible injury or damage to the chair.

### **Stairways**

BRODA does not recommend that the occupant be seated in the chair when moving the chair between floors when no elevator is available. If there is no other option, two assistants are required. With one assistant behind the chair, tilt the chair back to the balance point and back the chair up against the first step.

A second assistant (at the front of the chair), with a firm grasp on a non-detachable part of the frame, should lift the chair up and over the stair, steadying the chair as the first assistant places one foot on the next step and repeats the process.

Never use an escalator to move a chair between floors.

## **SECTION 2 - DEFINITIONS AND TECHNICAL INFORMATION**

### **2.1 Definitions**

“BRODA” means BRODA Enterprises Inc. doing business as BRODA Seating. “Chair” refers to a BRODA Model Chair, in this case, the LT Tilt Chair.

“Long-Term Care Institution” refers to a Nursing Home, Hospital, or other Health Care facility that provides health and personal care to its residents on a long-term basis.

“Patient” refers to an individual using the Chair who may be limited to a sitting position.

“Professional Caregiver” refers to the Doctors, Nurses, Therapists, Nurses Aids, Health Care Aids, and other Specialists who provide health and personal care to its residents.

“Caregiver” refers to any person who is appropriately trained to provide care or services to the patient or the chair used by the patient and may include the patient’s family members or guardian.

“Seat Tilt” refers to changing the angle of the chair’s seat with respect to the chair frame (or ground), without changing the angle between the back and the seat.

“Transfer(s)” refers to the movement of a resident into or out of a chair with the assistance of their caregiver(s).

“Mechanical Transfer(s)” refers to the movement of a patient into or out of a chair with the assistance of their caregiver(s) using a patient lift or other assistive device that bears the weight of the patient.

“Safety Requirements” are the important information contained in Section 1 which must be followed to ensure the safe operation of the chair for the patient, caregivers, and third parties.

### **2.2 Technical Information**

#### Chair Frame

The frame is constructed of solid and tubular steel. The base, seat, back, arms and footrest are powder coated for durability and corrosion resistance. The recommended maximum patient weight is 300 lbs. (136 kg).

Adjustments to the seat tilt function are supported by a mechanical locking device designed to permit controlled movement during the operation of these functions. No motors or other powered devices are used in the chair.

#### Casters

The chair utilizes swivel casters with non-marking rubber tires. Minimal maintenance is required for the casters except for in extreme conditions as steam cleaning, pressure washing or autoclaving.

### Padding

The chair is designed with removable padding. The 34 ounce healthcare vinyl fabric covering is manufactured to meet the following requirements: DIN 75 200/DIN 53 438; MVSS 302, M2; CAL 117, and Wyzenbeck Heavy Duty Abrasion Test; has an antimicrobial, antibacterial, anti-stain and anti-static finish; Cold crack of -20°C. Polyurethane foam meets CAL 117-2013.

Removable seat and back pads are covered with an 8 ounce soft vinyl which meets CAN2-162 flammability standard for hospital textiles. Polyurethane foam meets CAL 117-2013. Removable, washable, pre-shrunk fitted cotton terry covers are provided for the seat and back pads

### Disinfection

For normal cleaning we recommend the chair be wiped clean with soap and water. When necessary, a household strength diluted ammonia or chlorine based cleaner may be used. Metal parts and cushions should be wiped dry after cleaning.

## **2.3 Shipping and Storage Specifications**

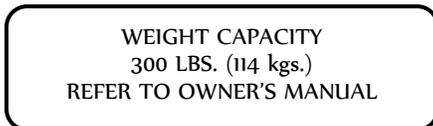
BRODA Chair boxes should be shipped and stored in an upright condition and not stacked higher than 2 boxes tall. No other materials should be shipped or stored on top of a BRODA box. BRODA boxes should not be placed on pallets.

BRODA Chairs should be shipped and stored at temperatures between minus 20 degrees Celsius and plus 40 degrees Celsius. BRODA Chairs should not be used until they are between 0 degrees Celsius and 30 degrees Celsius. BRODA Chairs should be kept in a clean, dry environment.

On receipt, we recommend that the shipping carton be immediately examined for damage. Any damage should be noted on the delivery receipt and a request for inspection by the transportation company should be made. The shipping carton should be opened immediately and the chair examined for concealed shipping damage. If the chair appears to be damaged, contact the customer service department at BRODA Seating.

## **2.4 Labels**

Weight Capacity Label



Serial Number Label



Tilt Label (Tan)



Tracking Caster Label (Green)



Legrest Label



### **SECTION 3 - CAREGIVER MANAGEMENT**

BRODA's unique and innovative chairs provide the optimum in re-positioning functions and mobility. However, BRODA's products were designed to be recommended by professional caregivers. The maximum benefit to the patient using this chair will be achieved with the advice and assistance of their caregivers.

At the customer's request, the initial basic training of the patient's caregiver(s) will be provided by either the local BRODA representative who supplies the chair or the HME Provider. The caregiver(s) must adhere to the Safety Requirements at all times to ensure the safety of the patient, caregivers, and third parties.

The customer will maintain a list of caregivers who have read this manual and are authorized by them to operate and move the chair.

**WARNING** BRODA assumes no liability for damage, injury or accidents caused by careless, negligent, incorrect, or unauthorized operation or movement of its chairs. It is the responsibility of the caregiver to ensure the patient is secure in the chair and that the proper degree of care is given based on the patients' needs.

## SECTION 4 - CHAIR OPERATION

### 4.1 Caster Locks

Caster Locks (brakes) are operated directly at each caster for both front and only the left rear casters. This function locks the direction and rotation of the caster. The right rear caster is a directional caster and the locking mechanism is used to maintain straight alignment of the caster with the chair.

### 4.2 Seat Tilt

The chair offers up to 28° of adjustable seat tilt. The gas spring used for the seat tilt feature allows the seat to be tilted to any position within its range. Use seat tilt to safely position the patient, redistribute pressure and increase comfort.



#### Adjusting Seat Tilt

1. Squeeze the tilt handle which is located on the push bar. (The tilt will be easier to operate with a patient/weight in the chair).
2. Raise or lower the seat tilt until the desired angle is achieved. The amount of tilt used should be determined by the patient's caregiver who is responsible for seating.
3. Release tilt handle when the desired degree of tilt is achieved.

### 4.3 Legrest

1. Hold Legrest to assist movement and squeeze the legrest handle.
2. Raise or lower legrest to the desired angle.
3. Release legrest handle when the desired legrest angle is achieved.
4. To lower the legrest into the retracted position, squeeze the legrest handle and push the legrest down until it tucks to the bottom of the base of the chair.

SECTION 5 - CHAIR REPAIR AND MAINTENANCE

5.1 BRODA Chair Inspection/Maintenance Schedule\*

Part	Initial Inspection	Inspect/Adjust Weekly	Inspect/Adjust Monthly	Inspect/Adjust Periodically	Inspect/Adjust Regularly
<b>Gas Cylinders:</b> <i>Check to ensure functions operated by cylinders are functioning properly:</i>	X		X		
<b>Cables and Handles:</b> <i>Cables connected to cylinders Cables completely release and handles return when released</i>	X	X			
<b>Upholstery:</b> <i>Check for tears</i>	X			X	
<b>Casters/Wheels:</b> <i>Inspect swivel casters for proper tension by spinning caster. Caster should come to a gradual stop.</i>	X	X			
<i>Loosen or tighten bolts if caster wobbles or comes to an abrupt stop.</i>	X		X		
<i>Check to ensure casters are clean and free of dirt</i>	X		X	X	
<i>Check to ensure all caster locks are functioning</i>	X		X		
<i>Check for loosening of the attachment between caster stem and housing.</i>	X				X
<i>Check casters. Replace if worn or cracked.</i>					X
<b>Armrests:</b> <i>Ensure arms are secure.</i>	X			X	
<b>Options/Accessories</b> <i>Inspect all Broda Chair options and accessories to ensure proper working order</i>	X			X	
<b>Framework</b> <i>Check for cracks along weld seam of tube, especially around load carrying bends e.g. backrest/seat; cracks or tears around welds, especially around load carrying tabs e.g. cylinder mounting tabs</i>	X				x
<b>Fasteners</b> <i>Check for loose, missing or worn fasteners</i>					X

## Inspection

Safety measures as described in Inspection/Maintenance schedule must be observed when inspecting or testing a chair. Only authorized caregivers or maintenance staff should attempt to inspect or test a chair.

BRODA recommends regular visual inspection for overall signs of wear, damage, loose or missing fittings, and other safety concerns. If a breakage, defect, or operational problem is detected, the chair must be repaired inspected and tested for function before it is returned to service.

BRODA recommends that the chair be inspected as often as each use if there is any reason to be concerned about the possibility of increased wear or loose or missing fittings.

The visual inspection should be performed by the facility, or if in a private residence, by the individual responsible for the chair.

### 5.2 Functional Testing

**BRODA recommends that the Chair should be tested for operation of the chair's functions without a resident in the chair.** The testing may be as often as each use if there is any reason to be concerned about the possibility of increased wear or damage to the chair's components.

If the caregiver or maintenance department performing the functional testing believes that any function is not operating correctly, **the chair should be taken out of service until a satisfactory functional test can be completed.**

**The caregiver or maintenance department performing the testing should be aware that the seat tilt and leg rest elevation operations will be more difficult without a resident in the chair.**

When performing repairs or maintenance, do not use lubricants that contain solvents. Solvents will damage many of the moving components in the chair. If necessary, a white, food grade grease (lubricant) may be used on the sliding components in the chair, do not use spray lubricants on any part of the chair.

#### **WARNING:**

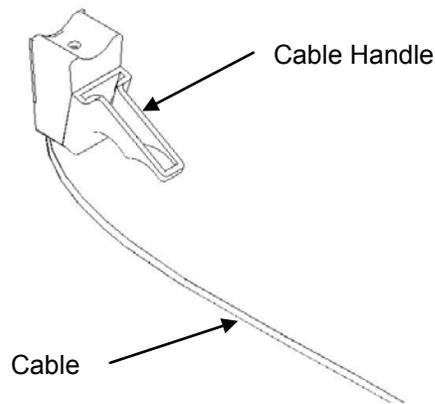
**After any adjustments, repair or service, before use, make sure all attaching hardware is tightened securely. Otherwise injury or damage may result.**

#### **CAUTION:**

**DO NOT over-tighten hardware as this could cause damage to the frame.**

Note: Please include the model number and serial number of the chair whenever you are ordering parts. These can be found on a sticker that is attached to the base on the bottom of the chair.

### 5.3 Cables and Cable Handles



#### Maintaining the Cables and Cable Handles

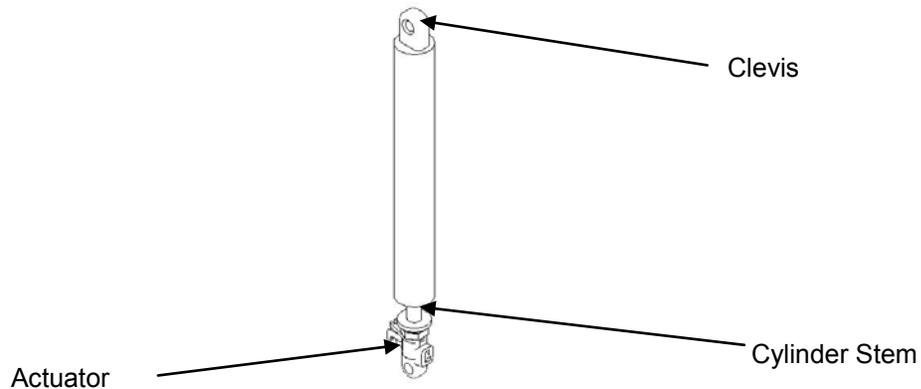
The cables and cable handles do not require any maintenance. Both replacement pieces are shipped together fully assembled.

#### Removing and Installing the Cables and Cable Handles

The cable is used in conjunction with a cable handle and an actuator to control the function of the gas cylinder. The cable is held in place on the handle end by a cable housing retaining clip. On the actuator end the cable hooks into the lever that depresses the control pin on the cylinder and the cable housing clip into the actuator housing.

1. Loosen the nut on the bottom of the cylinder. Unclip the cable from the actuator lever on the cylinder.
2. Cut the cable ties that secure the cable to the frame of the chair (carefully note the location of the cable ties and how the cable is routed around the frame of the chair.)
3. Unscrew the tilt handle from the frame.
4. Remount the new handle assembly to the frame of the chair using the screw removed in step 3.
5. Route the new cable around the frame of the chair the same as the previous one and install new cable ties where necessary.
6. Attach the end of the cable into the actuator lever the same way removed in step 1.
7. Secure the cable clip to the end of the cable attached to the actuator and tighten the nut on the bottom of the cylinder.

## 5.4 Gas Cylinders



The use of gas charged springs on BRODA products allow the caregiver to easily make adjustments to the tilt with a minimum amount of effort. The gas cylinder contains pressurized Nitrogen gas, it is not flammable nor is it toxic. The cylinder provides 600 Newtons (135 lbs.) of force. The cylinder provides assistance and reduces the amount of effort required by the caregiver to tilt the chair.

### How do they work?

On the end of the stem of the cylinder is a small pin. When the operator depresses the handle this pulls on the cable which in turn pulls on a small lever inside the actuator mechanism into which the stem of the cylinder is mounted. This depresses the pin which opens a valve located inside the barrel of the cylinder, allowing for changes in position. When the operator releases the handle, the valve closes and locks the cylinder in the desired position.

The function of the actuator is to push against the pin and open the valve that controls the cylinder. If the actuator is not properly adjusted when mounted on the cylinder, problems will occur.

### Maintenance

The gas cylinders generally do not require any maintenance. Adjustments may be needed due to cable stretch.

**When adjusting the cylinder it is important that you do not damage the stem on the cylinder. Small scratches left by applying the jaws of pliers or Vice Grips directly to the shaft while making adjustments will destroy the seal and allow the gas inside the cylinder to escape. Use a piece of cloth or rubber to protect the cylinder shaft from the tools you are using to make the adjustments!**

### Troubleshooting the Cylinders

Often, when experiencing problems with cylinders on BRODA Chairs, the cylinder is not damaged, it usually only requires an adjustment. There are two common adjustments.

1. The pin that the cable handle pulls on at the end of the cylinder is not connected correctly.
2. The handle or cable assembly is broken or disconnected.

Other solutions to common problems are listed below.

- **The chair is not tilting when cylinder handle is pulled.**  
The pin in the end of the cylinder is not being depressed when the handle is pulled. Action to take: See adjustment steps that follow
- **The chair tilt seems to slowly slide out of position.**  
The pin in the end of the cylinder may be still partially depressed.  
Action to take: See adjustment steps that follow.

### Adjusting the Cylinders

**Note: Cylinder does not need to be removed from the chair to make this adjustment.**

1. Loosen the lock nut located on the stem of the gas cylinder, next to the actuator, with a 17mm wrench.
2. From the above instructions, determine whether you want to wind the stem further into the actuator or further out of the actuator. You will need to wind the stem further into the actuator if the chair is not tilting (wind it clockwise) and wind it further out of the actuator if the chair is slowly sliding out of position. (wind it counter clockwise)
3. Check the function of the cylinder and repeat step 2 until the cylinder functions properly.
4. Tighten the lock nut loosened in step 1.

### Removing and Installing the Cylinders

1. Remove the 5/16" mounting bolt from the end of the cylinder (requires 2 x 1/2" wrenches).
2. Loosen the lock nut located on the stem of the cylinder by the actuator.
3. Wind the stem of the cylinder out of the actuator.
4. Wind the stem of the new cylinder into the actuator.
5. Reinstall the 5/16" mounting bolt.
6. Adjust the cylinder as per the above adjustment instructions.

## **APPENDIX 1 - BRODA WARRANTY**

### **GENERAL INFORMATION WARRANTY**

BRODA provides a Three Year Warranty on the chair frame and cross braces, and a One Year Warranty on all other components subject to the following conditions:

The chair frames and cross braces are guaranteed for the life of the chair against structural defects or failure. All other parts (except seat pads and cloth covers) including but not limited to strapping, cushions, gas springs and attachments, casters, caster locks and armrests are guaranteed for one year against defects in materials and workmanship based on normal institutional use. The guarantee does not cover malicious or deliberate damage or damage from misuse.

Modifications to BRODA products or the use of non-BRODA supplied parts voids the warranty. This warranty does not cover shipping damage (see below).

BRODA will provide new or refurbished parts for installation by the owner at no cost following confirmation by the local BRODA Representative or the BRODA Head Office Customer Service Representative. On request, defective parts must be returned to the factory within thirty days of receipt of the replacement parts by the owner. If the defective parts are not returned to BRODA on request, the owner will bear the cost of the replacement parts on invoice from BRODA.

Warranty does not include on-site labor for the installation of warranty parts or warranty repairs. The owner may return products to BRODA for warranty replacement or repair by shipping items prepaid and insured to the factory. Warranty completed at the factory includes both materials and labor. Parts to be repaired or replaced are at the discretion of BRODA. All returns to the factory require prior authorization from BRODA.

BRODA retains the right to make design and application changes without notice. All orders will be filled with BRODA's current models unless otherwise specified by the purchaser.

BRODA Chairs are designed for patient mobility, positioning, and comfort in specialty seating, however, the application of BRODA products shall remain the responsibility of the purchaser or user.

This warranty is not transferable.

### **RETURNS**

BRODA Seating will not accept any returns without a prior Returned Goods Authorization Number. Please contact our Head Office Customer Service Representative for assistance. Returns must be insured when shipped.

### **DAMAGED FREIGHT NOTIFY THE CARRIER OF ANY DAMAGE IMMEDIATELY**

It is the responsibility of the person receiving the goods to examine cartons and goods before accepting receipt. Note all damages on the bill of lading and file a claim if necessary. Notify the carrier of any concealed damaged within a maximum of 48 hours.

BRODA insures all products for in transit damage, failure to notify the carrier of in transit damage voids both the insurance and the BRODA warranty.

### **SALES TAX**

Most BRODA products are G.S.T. Zero Rated and Exempt from Canadian Provincial Sales Tax. Purchasers may be required to check with their Provincial or State Tax Office for purchaser tax payment.