

HOC Open Frame

Wheelchair owner and service manual



HOC Open Frame shown with selected equipment.

Hands on Concepts 3 Inc.

Read and understand this entire manual and the instructions for your fitted equipment before using the chair. If anything is unclear, ask HOC or your qualified provider before use. Learn to use the chair with a qualified professional. Keep this manual for future reference. Current manuals can be found here: www.teamhoc.com/manuals.

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Use the instructions for the equipment fitted to your chair. The main sections cover daily use, component checks and service. Appendix A provides a service record, and Appendix B lists fastener and compound precautions.

Safety warnings

How to read the safety messages

The triangle with an exclamation mark is the safety alert symbol. It identifies a personal-injury hazard. Read the entire message beside it and follow the stated precautions.

⚠ WARNING identifies a hazardous situation that could result in death or serious injury if the precautions are not followed.

These warnings apply to the user and anyone assisting, transporting or servicing the chair. Read them together with the operating instructions. Warnings for optional equipment apply when that equipment is fitted. A warning about an option does not establish that the option is compatible with your chair.

The dealer or provider must give this manual and the instructions for fitted equipment to the user. Keep them available to the user, assistants and service providers. If instructions are unclear or conflict, stop the activity and obtain clarification from HOC or your qualified provider.

Safety inspections and maintenance

⚠ WARNING A loose, damaged or worn part can fail during use and cause a fall or loss of control. Complete the checks in section 2 before each use and follow the inspection intervals in section 17. Do not use the chair with a failed check. Have the fault corrected and the chair checked before returning it to use.

Perform adjustment, repair and maintenance with the chair empty and securely supported. Only carry out tasks assigned to the user in this manual. HOC or a qualified service provider must perform setup changes and repairs. Recheck retention, operation and stability after work.

Becoming familiar with a new chair

⚠ WARNING Experience with another chair does not establish control of this one. Different weight, wheel position and seating can change the force needed to start, turn or stop. Begin on a clear, level surface with a qualified professional. Use slow, smooth movements and practise transfers and everyday activities with assistance before attempting them alone.

Preventing accidents and injuries

⚠ WARNING Use the chair only within the abilities and techniques established with your qualified professional. Review your setup if your strength, balance, posture, body weight or ability changes. Plan unfamiliar routes, look ahead for hazards and ask for help before reaching a situation you cannot control. A test result or a successful previous attempt does not make every activity or surface safe.

General warnings for setup and surroundings

Maximum load

⚠ WARNING The maximum load is 110 kg (242.5 lb), including the user and carried items. Do not exceed it. Overloading can damage parts, change stability and cause a fall. Bags, trays, carriers and their contents count toward the load. A lower limit on a fitted component also applies; staying within the chair limit does not establish accessory compatibility.

Changing or adjusting the chair

⚠ WARNING Changing rear-wheel position, camber, wheel or caster size, seating, back support, foot support or attached equipment can change balance and handling. Have HOC or a qualified provider assess the entire setup before making a change. Do not drill, weld, bend, grind or otherwise alter the frame, or fit unapproved parts.

After a change, check clearances, fasteners, axle retention, wheel locks and stability. Practise again with assistance. Adjustment travel is not permission to use every position: the safe range depends on the actual configuration. Use the HOC limits in sections 10, 13 and 14.

Environmental conditions and hot surfaces

⚠ WARNING Water, ice, grease, loose debris and other slippery surfaces can reduce grip and cause sliding or tipping. Avoid these conditions and use another route when control is uncertain. Do not use the chair in a shower, pool or other body of water. Dry and inspect it after wet exposure; titanium construction does not protect every bearing, fastener or accessory from damage.

Direct sun and nearby heat sources can make metal, carbon-fiber and upholstered surfaces hot enough to injure skin. Check surfaces before contact, particularly when sensation is reduced. Allow them to cool. Keep the chair and upholstery away from flames, cigarettes and heaters. Do not assume the fabric is fireproof.

Street use and visibility

⚠ WARNING Use suitable pedestrian routes and crossings; do not travel in moving-vehicle lanes. Watch for reversing vehicles, driveways and parking-lot traffic. Drivers may not see a wheelchair user. Do not enter a vehicle path until you know it is safe. Use suitable lighting and visibility aids in poor light, and obtain assistance if you cannot see hazards clearly.

Terrain

⚠ WARNING Use firm, relatively smooth surfaces suitable for the chair and your ability. Sand, gravel, loose soil, deep grass, potholes and rough ground can stop a caster, pull the chair sideways or damage components. Choose a smoother route. Slow down before uneven surfaces and do not continue if a wheel sinks, binds or loses reliable contact.

General warnings for transport and assistance

Motor vehicle safety

⚠ WARNING Do not use this wheelchair as an occupied seat in a motor vehicle. It is not designed to comply with ISO 7176-19, ANSI/RESNA WC19 or AS/NZS 3696.19 for occupied transport. Transfer to a vehicle seat and use the vehicle occupant restraints. Wheelchair positioning belts, hold-down brackets and tie-down loops do not provide crash protection for an occupant.

Secure the empty chair and removed parts so they cannot roll, shift, strike a person or interfere with vehicle controls. Follow section 16 and the vehicle and securing-equipment instructions. Following a collision, stop using the chair until HOC or a qualified provider has assessed it; damage may be hidden.

Weight training and unintended use

⚠ WARNING Do not use the wheelchair as a seat for weight training. Added weights and sudden movement change the load and balance and can cause tipping or structural failure. Use suitable exercise equipment with its own seating. The chair is for one person; do not carry a second person, tow another person or use the frame as exercise or playground equipment.

Obtaining assistance

⚠ WARNING Arrange assistance before a task exceeds your ability. The assistant must understand this manual, know your chair and learn the technique with your qualified professional. Tell the assistant what help you need and agree on the movement before starting. Unexpected pushing, pulling or tilting can cause a fall or injury to either person.

Standing on the chair

⚠ WARNING Never stand on the seat, frame, footplate, armrest or other chair part, and do not let another person do so. The chair is not a step stool or ladder. Do not place your weight on the foot support during a transfer; the chair can tip or roll and the support can be damaged.

Assistants and attendants

⚠ WARNING Use only the assistance methods taught for this user and configuration. Keep a stable stance, avoid twisting under load and use the lifting or transfer aids recommended by the qualified professional. Ask for additional trained help when needed. Do not improvise an occupied-chair lift.

Check fitted push handles and grips before applying force. Do not grab upholstery, the release bar or a detachable part. For lifting the empty chair, use only the fixed-frame grips in section 16. Keep hands and feet clear of wheels, hinges and anti-tips, and communicate before changing direction or stopping. Never leave an occupied or unoccupied chair unattended on a slope.

Warnings about balance and everyday activities

Center of gravity and stability

⚠ WARNING The chair can tip forward, backward or sideways when the combined balance of the user and chair moves beyond its support. Moving the rear axle forward generally makes backward tipping easier. Changes in seat height, support, wheel spacing, camber, body position or carried loads also change stability.

A bag behind the backrest can increase backward tipping risk. Do not hang loads from handles or the backrest unless HOC has approved the attachment and setup. Have a qualified provider assess changes, set compatible anti-tips where required and check the full configuration. A more rearward axle or anti-tip device does not eliminate the possibility of a fall.

Transfers into and out of the chair

⚠ WARNING During a transfer, part or all of your weight may be unsupported by either seat. Learn the method and body positioning with a qualified professional and use assistance or a transfer aid when required. Bring the chair close to a stable destination, apply both rear wheel locks and follow section 4.

Wheel locks prevent wheel rotation; they do not prevent the chair from sliding or tipping. Keep feet clear of the foot support and use the approved fixed-frame hand supports. Move removable armrests or other obstructions only as their instructions allow. Do not drop onto the seat. Check your seated position and support before releasing the locks.

Dressing and undressing

⚠ WARNING Changing clothes can shift your weight while your attention is elsewhere. Use a stable bed or other suitable surface if the movement cannot be controlled in the chair. If dressing in the chair, use the method established by your qualified professional on level ground, with both wheel locks applied and prescribed anti-tips in their operating position. Do not stand, slide forward or reach beyond your balance limits. Obtain help when needed.

Bending leaning and reaching

⚠ WARNING Reposition the chair close to the object instead of stretching for it. Keep your pelvis supported by the seat and stay within the reach limits established with your qualified professional. Do not reach between your knees toward the floor, lean over the top of the backrest, shift onto the footplate or slide forward off the seat.

Do not pull on furniture, a door or another object to drag the chair into position. Ask someone to retrieve an object when reaching would disturb your balance. Wheel locks and anti-tips do not make an otherwise unsafe reach safe. Practise any new reach with qualified supervision.

Warnings about rolling ramps and obstacles

Moving backward

⚠ WARNING Rearward movement increases the risk of striking an unseen obstacle or tipping backward. Check the route before moving, then use short, slow, smooth pushes and stop frequently to look behind. Keep prescribed anti-tips locked in their operating position. Do not back toward an unguarded edge, curb or stair. Ask for help if you cannot see or control the route.

Hills slopes and ramps

⚠ WARNING Do not use the chair on a slope greater than 10% grade, approximately 5.7 degrees. This is a maximum restriction, not a guarantee that every lesser slope is safe. Your ability, chair setup, grip, surface and ramp transitions may require a lower limit.

Check that the route is clear, sufficiently wide and free from slippery patches, abrupt lips and drop-offs. Travel straight along the ramp and stay away from its edges. Avoid sideways travel, sudden direction changes and turning on a slope. Use the body position and speed-control method taught for your setup. Obtain assistance before entering a slope you cannot manage.

Control speed with the pushrims or the approved fitted driving system; never apply parking wheel locks to slow a moving chair. Excessive speed can cause loss of control, caster flutter or hand injury. Do not leave the chair unattended on an incline. Anti-tips do not prevent every backward tip and do not protect against sliding or sideways tipping.

Obstacles and uneven transitions

⚠ WARNING Thresholds, gaps, soft carpet, broken paving and small abrupt changes in height can stop the casters or foot support and throw the user forward. Scan ahead, reduce speed early and use a smooth accessible route where possible. Keep the path clear of cables, loose rugs and clutter.

Maintain at least 40 mm ground clearance below the foot support and clearance throughout caster swivel. That clearance is not a rated obstacle height. Do not force the chair over an object or drag the frame across it. After impact or scraping, inspect the chair and stop use if there is damage, looseness or a sharp edge.

Curbs and steps

⚠ WARNING A curb or step can cause a sudden stop, fall or tip-over even when it appears small. Use a curb cut, ramp or another accessible route whenever available. Do not jump or drop the chair from an edge. HOC does not specify a safe curb height in this manual. A clearance measurement or another wheelchair maker's limit must not be used as one.

Warnings for wheelies curbs and stairs

Learning a wheelie

- ⚠ WARNING** Balancing on the rear wheels with the casters raised can lead to a backward fall. Do not try to learn from a written description or attempt it alone. First have a qualified professional assess whether the skill is appropriate, then obtain practical instruction with a trained assistant able to control a developing tip. This manual does not provide a wheelie training procedure.

Wheelies during use

- ⚠ WARNING** Do not use a wheelie as a shortcut around an obstacle you cannot negotiate safely. A change in chair setup, load or surface can invalidate a previously learned balance point. Do not remove or reposition anti-tips simply to attempt the maneuver. Any advanced-skill training must address the exact chair, anti-tip arrangement and assistance needed.

Climbing a curb or single step

- ⚠ WARNING** Do not attempt an untrained or unsupported ascent. Use an accessible route where possible. If a qualified professional has taught an assisted method for this chair and user, use the specified trained assistance and contact points, check the approach and landing, and avoid impact. Do not lift through the backrest, release bar, foot support or detachable parts. Stop if the method or clearances are uncertain.

Descending a curb or single step

- ⚠ WARNING** Do not roll off an edge, let the chair drop or rely on wheel locks to control descent. Prefer a ramp or curb cut. An assisted descent must use a method taught for this chair, a trained assistant and a clear landing. Protect the feet and footplate from striking the lower surface. Inspect after an impact and stop use if a part is damaged or loose.

Climbing a flight of stairs

- ⚠ WARNING** Do not attempt to roll or carry this wheelchair up stairs with the user seated. The empty-chair grip locations in section 16 are not approval for occupied-chair lifting. Use an accessible lift or arrange a separate transfer and assistance plan with qualified personnel. Do not improvise by having people pull on handles or frame parts.

Descending a flight of stairs

- ⚠ WARNING** Do not attempt to roll or carry this wheelchair down stairs with the user seated. A loss of grip or control can cause a serious fall. Arrange an accessible route or a separate transfer and assistance plan. Move the empty chair separately using section 16 and assistance appropriate to its weight.

Escalators

- ⚠ WARNING** Never take the wheelchair onto an escalator, including with assistance. The moving steps can catch wheels or frame parts and cause a fall. Use an accessible elevator or another suitable route.

Warnings for seating and anti-tips

Anti-tips

⚠ WARNING HOC recommends compatible anti-tips, especially while learning a chair, after a setup change or when your ability changes. If anti-tips are required for your prescribed setup, do not use the chair without them correctly fitted and engaged. Use the exact supplied device's instructions; conventional and active or sport anti-tip designs do not necessarily work or adjust in the same way.

Check every fitted anti-tip for damage, secure attachment, correct operating position and ground clearance. Any spring button or locking pin must fully engage its retaining hole. If the correct position cannot be achieved, stop and have the provider correct the setup. Do not assume one device can be removed because another remains.

Anti-tips can reduce some backward-tipping risk but cannot prevent all falls, forward or sideways tipping, or sliding. They may lose effectiveness on soft, uneven or sloping ground and can catch obstacles. Do not change their setting without the prescribed instruction and assistance. Recheck them after wheel, caster or seating changes.

Seat slings and cushions

⚠ WARNING The seat sling or pan supports the cushion and user; it is not, by itself, a pressure-management system. Have your qualified healthcare professional select the cushion and support needed for your positioning and skin protection. Do not substitute or stack cushions without assessment: added height or movement can change fit and stability.

Use the cushion in its specified orientation and secure it as instructed. Check for sliding, damage and loss of support. The sling must not sag onto the crossbar when occupied. Stop use of a damaged sling or pan and arrange service. Follow the cushion maker's instructions and your healthcare professional's skin-care and positioning advice.

Upholstery fabric

⚠ WARNING Worn fabric, failed stitching, stretched fixing holes or loose hook-and-loop fasteners can allow the seat or back support to fail. Inspect all attachment points, seams and support straps. Do not use torn, loose or badly stretched upholstery; have it replaced. Lower yourself onto the seat in a controlled way rather than dropping onto it.

Keep upholstery dry before use and clean it only as directed. Protect it from flames, smoking materials, heaters and harsh chemicals. Do not assume flame resistance without the fitted material's documentation. Changes to padding or fabric require a fit, support and compatibility check.

Seating and back-support systems

⚠ WARNING A different seat pan, cushion or backrest can shift the user's position and affect stability, pressure distribution and folding clearances. Have HOC or a qualified provider confirm compatibility and install or adjust it. Follow its maker's instructions and recheck the entire chair before use.

Do not assume a system fits safely because it can be clamped to the tubes or appears stronger than the supplied support. Confirm that fasteners, upholstery and brackets do not prevent either backrest hinge from locking or obstruct the release bar. Practise with assistance after a change.

Warnings for supports handles and positioning aids

Positioning belts and straps

- ⚠ WARNING** Use a positioning belt or strap only when selected and fitted by a qualified healthcare professional. It supports posture; it is not a motor-vehicle restraint, a substitute for supervision or permission to perform an unsafe movement. An unsuitable fit can allow sliding, entrapment, breathing restriction or strangulation.

Follow the specific product's instructions for location, fit and release. Check webbing, closures, stitching and anchors before use. The user or responsible assistant must be able to release it promptly. Do not continue use if the person slides beneath it or it restricts breathing. Do not improvise a belt from clothing or general-purpose straps. Calf-strap loops alone do not provide a calf strap.

Armrests

- ⚠ WARNING** Do not lift or carry the chair by an armrest, and do not assume an armrest can support a transfer load. Removable or swing-away arms can detach or move unexpectedly. Have their suitability for transfers assessed with your provider. Move them out of the transfer path only as instructed, then check their locks and retention before use.

Footrests and hangers

- ⚠ WARNING** Do not stand on the footplate or use a footrest or hanger as a lifting point. Keep feet clear during transfers and use the method taught for the fitted support. For the HOC height-adjustable support, keep at least 30 mm of each support tube inside its clamp and at least 40 mm above the ground, with full caster clearance.

Do not fit a different hanger or foot support without HOC approval. A swing-away or removable design, if fitted, requires its own engagement and adjustment instructions. Foot loops help limit sideways movement; they do not replace prescribed positioning support or prevent every foot slip.

Push handles

- ⚠ WARNING** Before an assistant uses a push handle, check that the handle, clamp or locking device is secure and the grip cannot rotate or slide off. Grips must be clean, dry and undamaged. Recheck after wet exposure, heat, cold or adjustment. Do not rely on the backrest upholstery, exposed tube cap or release bar as a handle.

Folding, removable, clamp-on and welded handles have different retention arrangements. Use the instructions for the fitted design and check its operating lock before use. Push handles are not lifting points for this chair. The upholstery grommet screw does not replace a removable push cane's own retention system.

Clothing guards and trays

- ⚠ WARNING** Guards, trim panels and trays are not lifting handles. Do not pull on them during a transfer or use them to restrain a person. Check panels and attachments for cracks, sharp edges and looseness. Secure folding or removable parts in their intended position and keep them clear of wheels and moving mechanisms. Use only compatible mounts and observe any separate accessory load limit.

Warnings for wheels locks and fasteners

Rear wheels

- ⚠ WARNING** Use a matching pair of rear wheels approved for the chair. Wheel diameter, tire type, axle fit, spacing and camber affect support height, balance and wheel-lock contact. Do not mix incompatible wheels or use a bent rim, damaged spoke or loose hub. Have replacements and alignment checked by the qualified provider; recheck wheel locks after any wheel or axle-position change.

Quick-release axles

- ⚠ WARNING** A rear wheel can come off if its axle is not fully retained. After insertion, release the HOC push button and confirm that it returns to its resting position. Pull firmly on the wheel without touching the button; it must stay attached. Repeat on both sides before use and every time a wheel is refitted. Do not use an axle that binds, fails to retain or has excessive play. Have HOC or the provider correct the fit.

Pneumatic and solid tires

- ⚠ WARNING** Check pneumatic pressure against the fitted tire and wheel supplier's instructions before use. Low pressure can cause pulling and let a wheel lock slip; excessive pressure can cause tire failure. Do not compensate for a soft tire by moving the lock. Use suitable inflation equipment and do not exceed the specified limit.

Solid tires are not inflated. Check them for cracks, flat spots, wear and looseness on the rim. Tire and tube replacement must use compatible parts and the supplier's procedure. Recheck both wheel locks and free rotation afterward.

Rear wheel locks

- ⚠ WARNING** Wheel locks are parking devices. Apply them only after the chair stops; using them to slow a moving chair can cause sudden turning or loss of control. Apply both before a transfer. With the correct tire pressure, the applied stop must produce 3/16 in (4.76 mm) indentation and hold the wheel. Released locks must clear the tires. Stop use if either lock slips or fails to release. Keep fingers out of the linkage and operate the outer grip.

Caster pin or directional locks

- ⚠ WARNING** If an approved caster swivel-lock system is fitted, follow its manufacturer's operating instructions. A swivel lock controls caster direction; it does not stop the wheel rolling and does not replace the rear wheel locks. Check full engagement and release and do not force a stuck pin. Use the lock only for the activities specified by its maker. This instruction does not authorize adding a lock to the Bowhead fork assembly.

Fasteners

- ⚠ WARNING** A screw that fits the hole is not necessarily a suitable replacement. Match the specified thread, head, length, material, strength and engagement. Under-tightening can allow movement; over-tightening can strip threads, crush tubing or damage a clamp. Stainless steel alone does not identify strength grade. Use the joint-specific HOC setting and stated compound, not a general bolt chart. Replace damaged fasteners and have recurring looseness investigated.

Warnings for folding accessories and return to use

Folding backrest and moving parts

⚠ WARNING Fold or unfold the backrest only with the chair empty and supported. Keep hands clear of closing plates, latches and the path of the release bar. Lift the center of the bar so both sides release together. The mechanism covered here locks upright only; it does not lock folded.

After raising the backrest, check engagement on both sides and gently push and pull it forward and backward. Do not sit in the chair if either hinge fails to latch or a post is loose. Keep upholstery and straps clear of the mechanism. Never use the release bar or folding backrest to lift the chair.

Power-assist and powered attachments

⚠ WARNING Do not add a powered wheel, front drive, power-assist unit or controller solely because a bracket fits the frame. HOC must approve the complete combination. Added mass and drive forces can change braking, steering, balance and structural loads. Obtain professional setup and training before use and follow the device maker's instructions, including drive engagement, disengagement, charging and transport.

This manual does not provide operating instructions or confirm test coverage for a powered attachment. A clamp or welded controller mount alone does not establish system compatibility. Use the separate approved instructions for the exact fitted device.

Parts accessories and carriers

⚠ WARNING Use only parts, adapters and accessories approved by HOC for the chair. Being sold for wheelchairs generally, having the same mounting dimensions or appearing stronger does not establish compatibility. Added carriers, tables, oxygen holders, batteries and other equipment can change balance and clearances.

Secure items in the intended mounts, observe their own limits and keep them clear of wheels, controls and the user. Do not hang loose loads from the backrest. Before use, have the complete setup checked and obtain the accessory instructions. Contact HOC when compatibility or the correct instruction is uncertain.

Impact damage and return to use

⚠ WARNING After a fall, collision, hard impact or ground strike, stop and check for damage. Do not return a suspect chair to use merely because it still rolls. HOC or a qualified provider must inspect damaged or loose components, welds, alignment and locking mechanisms and determine the required repair or replacement.

Do not file away a sharp edge, straighten a bent tube or conceal a crack as a field repair. After service, complete the applicable retention, function, clearance and pre-use checks. Record the work against the chair's serial number and send the record to HOC or the servicing dealer.

1 About this wheelchair

The HOC Open Frame is a manually propelled wheelchair for one person who needs a manual wheelchair. It is operated by the occupant, with assistance when needed. A qualified professional or provider must check the fit, equipment and setup with you before use. This manual covers operation, care and service of the fitted components shown.

Identification	Details
Manufacturer	Hands on Concepts 3 Inc.
Model	HOC Open Frame
Chair serial number	See the serial badge on the fixed crossbar beneath the seat.
Maximum load	110 kg (242.5 lb), including the user and carried items.

⚠ WARNING Do not exceed the maximum load. Extra weight can overload the chair and change its balance, causing a fall or injury. Do not use this wheelchair as an occupied seat in a motor vehicle.

2 Before each use

Before first use, have a qualified professional check fit and setup and help you become comfortable with steering, stopping, transfers and balance. Initial preparation includes fitting compatible rear wheels (section 5) and the checks below. The supplied sign-off sheet records delivery and setup.

Check	What to look for
Rear wheels	Both rear wheels match each other and the specifications approved for this chair. Each axle is fully seated. Pull each wheel without pressing its release button; it must stay attached. Do not use a damaged wheel or a mismatched pair.
Wheel locks	Both locks hold the stationary chair and fully clear the tires when released. The service setting is 3/16 in (4.76 mm) tire indentation; see sections 7 and 8. Do not compensate for a soft tire by moving a lock.
Backrest	Both hinges latch upright. Back posts, support attachments and hardware are secure. No missing or loose screws, grinding, binding or unexpected movement.
Foot support	Secure, with at least 30 mm of tube inserted in each height clamp and at least 40 mm between the lowest part of the footrest assembly and level ground. Clear of the casters.
Seat and back support	Fabric, foam and upholstery are clean and fully dry, without tears or failed stitching. Backrest straps, cushion strips, lower retaining loops and privacy flap are secure; open-top grommet screws are present and secure. The seat supports the user without contacting the crossbar below it.
Clothing guards	Panels and all fasteners are secure. No cracks, splinters or sharp edges. Any supplied removable or folding guard is fully engaged and secure.
Tires and casters	Left and right tires match in size and type; never fit a solid tire on one side and a pneumatic tire on the other. Pneumatic tires have the specified pressure. Tires, rims, spokes and casters are sound; wheels rotate freely.
Frame and hardware	No cracks, bent parts, loose hardware, dents, sharp edges or burrs. Inspect the front frame rails and under-seat crossbar, especially after any ground contact. Do not run a bare hand along a suspected sharp edge.
Labels	Serial badge and warnings are present and readable.

⚠ WARNING Do not use the chair if a retaining or support part is loose, a wheel lock fails, or any part is damaged or has harmful sharp edges or burrs. Have HOC or a qualified service provider correct the problem before use.

After any adjustment or reassembly

Repeat these checks before every use and after transport. Repeat the relevant checks after service. A qualified provider must check the complete setup after changes affecting stability, alignment or wheel-lock position.

3 Stability and daily use

Your position and the chair setup affect balance. Practice reaching, leaning and everyday movements with a qualified professional before trying them alone. Use the techniques that are appropriate for your chair and your abilities.

⚠ WARNING Reaching beyond the stable support area, sudden movements or changes to the chair can cause tipping and serious injury. Practice new activities with qualified assistance before attempting them alone.

Keep the setup consistent

- Use the chair for one person only.
- The combined user and carried-item load must not exceed 110 kg (242.5 lb).
- Have changes to rear-wheel position, seating or fitted equipment assessed by HOC and/or your qualified provider before use.
- Use only storage attachments and accessories approved for your chair. Added loads can change balance, control and clearances. Staying below the maximum load does not establish that an accessory is compatible.

Keep hands, feet, clothing and loose straps away from rotating wheels and moving mechanisms. Do not stand on the frame or use the chair for weight training. Keep away from open flames. Use a suitable pedestrian route; do not travel in moving-vehicle lanes. Ask for help before reaching requires you to slide forward or lean beyond your trained stable position.

Ramps and uneven surfaces

Do not use the chair on a slope steeper than 10% grade (about 5.7°). This is a maximum restriction, not a promise of safe travel on every slope below it. Your ability, chair setup and surface may require a lower limit. Avoid cross-slopes, sudden turns, loose ground and wet or slippery surfaces. Seek help before a route exceeds your trained ability.

⚠ WARNING Wheel locks are parking devices. Do not use them to slow a moving wheelchair. Keep hands, clothing and loose items clear of moving wheels and linkages.

Stairs and escalators

Do not use an escalator. This manual does not provide a method for carrying an occupied wheelchair on stairs. Plan a suitable accessible route and obtain assistance where needed.

For obstacles or curbs, use a method taught by your qualified professional for this chair and your ability, with assistance when needed. Do not attempt steps, wheelies or an unknown surface without suitable training. Keep the footplate from striking the surface.

4 Transfers

Learn a transfer method with a qualified professional before attempting it alone. Follow the precautions below as well as that training. If professional advice conflicts with a manufacturer instruction, ask for clarification before attempting the activity.

1. Bring the wheelchair close to the transfer surface. Check that both the chair and the surface you are moving to are stable and will not roll, slide or tip.
2. Apply both wheel locks and check that they hold.
3. Move your feet clear of the foot support as your transfer method requires.
4. Use the fixed-frame hand supports shown in R02 and the technique taught by your qualified professional. Choose a secure grip with clearance from moving parts.
5. After returning to the chair, check your seated position, foot placement and support before releasing the wheel locks.

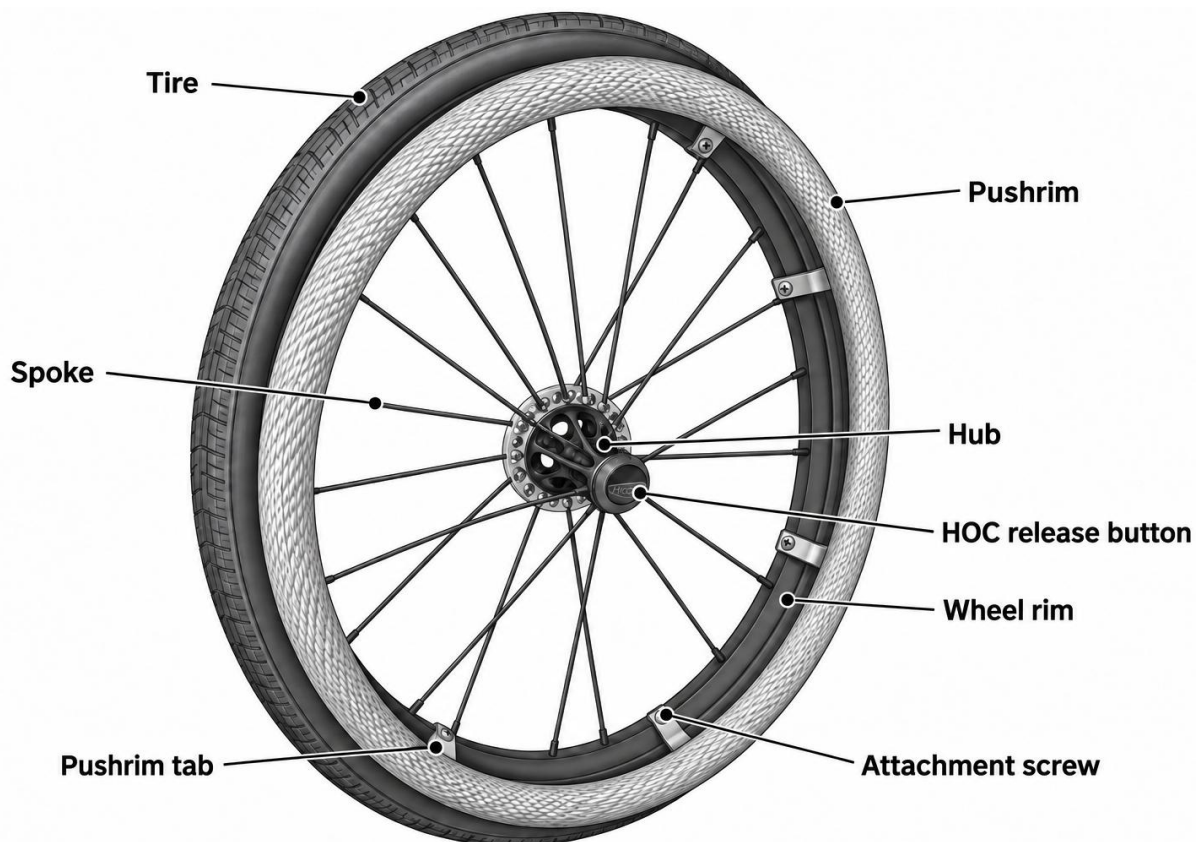
⚠ WARNING A chair that rolls or tips during transfer can cause a fall and serious injury. Apply both wheel locks. Do not stand on the footrest, lean on clothing guards or use removable parts as hand supports. Keep fingers out of hinges and wheel-lock linkages.

The approved grip areas are the front portions of both main frame rails and the fixed crossbar beneath the seat, marked in R02 in section 16. These locations do not remove the need for a stable transfer method and assistance appropriate to your ability.

Before attempting a new transfer

Ask your qualified professional or provider to review the method if the chair setup, transfer surface or your ability changes.

5 Removing and refitting rear wheels



W01 Rear-wheel parts and HOC release button. Pushrim finish may vary. Section 15 covers the tab attachments.

Remove a wheel

1. Keep the chair empty and securely supported. Hold the rear wheel at the hub.
2. Press and hold the HOC release button at the center of the axle.
3. Draw the wheel and axle straight out of the receiver.

Refit a wheel

1. Press the release button and slide the axle fully into the receiver.
2. Release the button. Pull firmly on the wheel without pressing the release button; the wheel must stay attached.
3. Repeat on the other side and check both wheels before use.

⚠ WARNING Remove or refit wheels only with the chair unoccupied and securely supported. A wheel that is not fully retained can detach and cause a fall or serious injury. Check both wheels every time they are refitted. Have HOC or your provider handle axle adjustment.

HOC sets the quick-release axles to fit at the factory. Use only rear wheels matching each other and the chair's approved specifications. Do not fit damaged wheels. Have HOC or your provider make any axle or compatibility adjustment.

6 Tires and front casters

Use tire and inner-tube systems that are compatible with the fitted wheels and rims and recommended for you by a qualified professional. Follow the tire, tube and wheel manufacturers' compatibility and inflation instructions. Use only the rear-wheel size and type supplied or specifically approved for your chair. Owner-supplied wheels also need HOC/provider compatibility checks before use. Match the left and right wheel and tire setup. Keep the approved caster size, fork and axle mounting hole.

Tire checks

- Pneumatic tires: check pressure before use against the fitted tire marking and supplier instructions. Inflate with a suitable pump and gauge; do not exceed the tire's stated limit.
- Look for cracks, damage, tread wear or other deterioration.
- Have a damaged tire repaired or replaced before using the chair.
- After a tire or wheel change, check both wheel locks and their released clearance.

Solid tires do not take air and must not be inflated. Check for splits, flat spots, excessive wear or a loose fit on the rim. Have the wheel supplier or a qualified provider replace them using the correct size and installation procedure. Recheck wheel-lock holding and clearance after replacement.

Caster checks

Check that the front wheels rotate freely and that fork and wheel attachments are secure. Have HOC or your provider investigate binding, looseness or persistent caster flutter. Follow each fitted brand's manual for fork and caster-wheel replacements; see the following HOC housing pages.

⚠ WARNING Mismatched wheels, incorrect caster holes or incompatible parts can change stability, height and wheel-lock contact and cause loss of control or a fall. Do not adjust locks to hide low tire pressure. Have replacements and setup changes checked by your provider.

Caster dome housing and threaded insert

This section covers only the HOC dome housing, threaded insert, stem, washers and retaining screws shown. Have HOC or a qualified service provider perform this work. Fork and caster-wheel replacement must follow the respective brand's instructions and manual for the exact fitted model.

Caster dome housing and threaded insert

Exploded identification view · fork, bearings and caster wheel omitted

Dome housing

Frame omitted for clarity

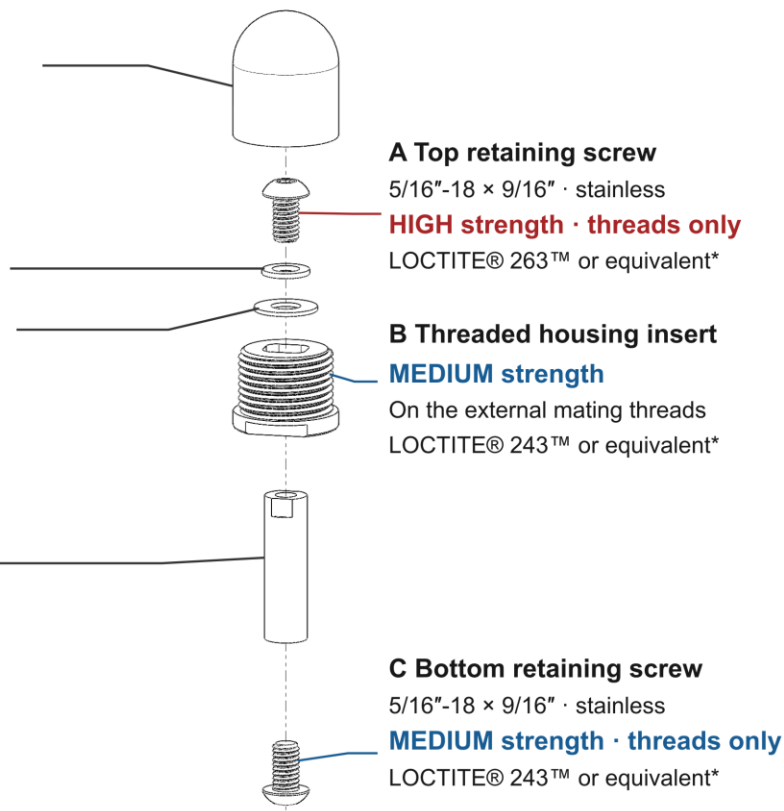
Small washer

Above the larger washer

Large washer

Stem

Keep the smooth shaft clear of threadlocking adhesive.



*Or equivalent threadlocking adhesive of the specified strength, suitable for the joint materials.

Red and blue identify the named products; color alone does not establish equivalence.

Use the adhesive manufacturer's preparation and cure instructions. Joint tightening settings are separate.

LOCTITE® is a registered trademark of Henkel and/or its affiliates. 243™ and 263™ are Henkel trademarks.

C01 Dome housing, threaded insert and retaining hardware. Both screws are 5/16-18 × 9/16 in stainless button-head screws with a hex drive.

The dashed line shows alignment. Exploded spacing is for part identification; threaded parts must be unscrewed, not pulled straight out. The frame and the fork assembly are omitted for clarity.

Caster housing service notes

Forks and caster wheels

Use the fork manufacturer's manual for fork replacement and its bearings, spacers and retention hardware. Use the caster-wheel manufacturer's manual for wheel replacement and its axle hardware. Follow the exact model's parts, assembly order, tightening values and final checks. This HOC housing illustration does not replace those instructions. If the correct instructions are unavailable or conflict, contact HOC or your provider before proceeding.

Threadlocking adhesive locations

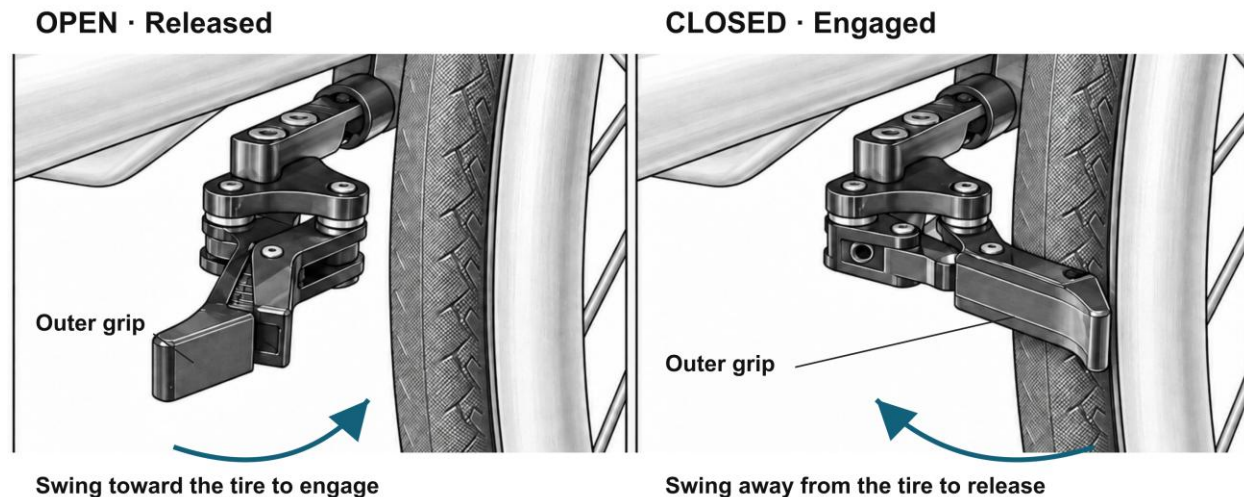
Location in C01	Required adhesive
A Top retaining screw threads	High strength: LOCTITE® 263™ (red), or equivalent high-strength threadlocking adhesive suitable for the joint materials.
B Housing-to-insert mating threads	Medium strength: LOCTITE® 243™ (blue), or equivalent medium-strength threadlocking adhesive suitable for the joint materials.
C Bottom retaining screw threads	Medium strength: LOCTITE® 243™ (blue), or equivalent medium-strength threadlocking adhesive suitable for the joint materials.

Use the named product or an equivalent suitable for the actual joint. Check the product's technical data; color alone does not establish equivalence. LOCTITE® is a registered trademark of Henkel and/or its affiliates. 243™ and 263™ are Henkel trademarks.

Preparation and return to use

1. Keep the chair unoccupied and securely supported. Identify the fitted components and obtain the applicable manufacturer instructions before disassembly.
2. Follow the selected adhesive's technical data for cleaning, drying, application, any required activator and curing on the actual materials. Keep adhesive off bearings, washers and the smooth stem surface. Do not combine anti-seize with adhesive on these joints.
3. Preserve the washer order in C01: small washer above the large washer. Use HOC's approved tightening values for the screw and housing joints. Allow the specified cure before returning the chair to use. The high-strength top screw requires HOC's service/removal procedure; it is not a routine user adjustment.
4. Check that the housing, insert and retaining hardware are secure. Complete the fork and wheel manufacturer's retention and free-movement checks, then the pre-use checks in section 2. Stop if there is looseness, binding or an unresolved fault.

7 Scissor wheel locks



Keep fingers out of the scissor links and the gap between the lock and tire.

L02 Scissor lock released on the left and engaged on the right. Use the outer grip shown.

Apply both locks

1. Stop the chair before operating the locks.
2. Hold the outer grip and swing each handle toward its tire until the stop presses against the tire and the lock is fully applied.
3. Check that both rear wheels are held before transferring.

Release both locks

Hold the outer grip and swing each handle away from its tire to the stowed position. Check that both stops clear the tires and that both wheels rotate freely.

⚠ WARNING Never place your hand between the scissor lock and tire, or inside the folding linkage. Fingers can be trapped or crushed. Operate the handle from its outer grip. The locks hold a stationary chair; they do not slow a moving chair.

With correctly inflated tires and the lock applied, the stop should indent the tire by 3/16 in (4.76 mm). Both locks must hold when applied and fully clear the tires when released. If either slips, stop use until corrected. Recheck after wheel, tire or axle-position changes.

Use the procedure for the wheel lock fitted to your chair. The loop-lever push-to-lock procedure follows this section.

Optional push to lock wheel locks

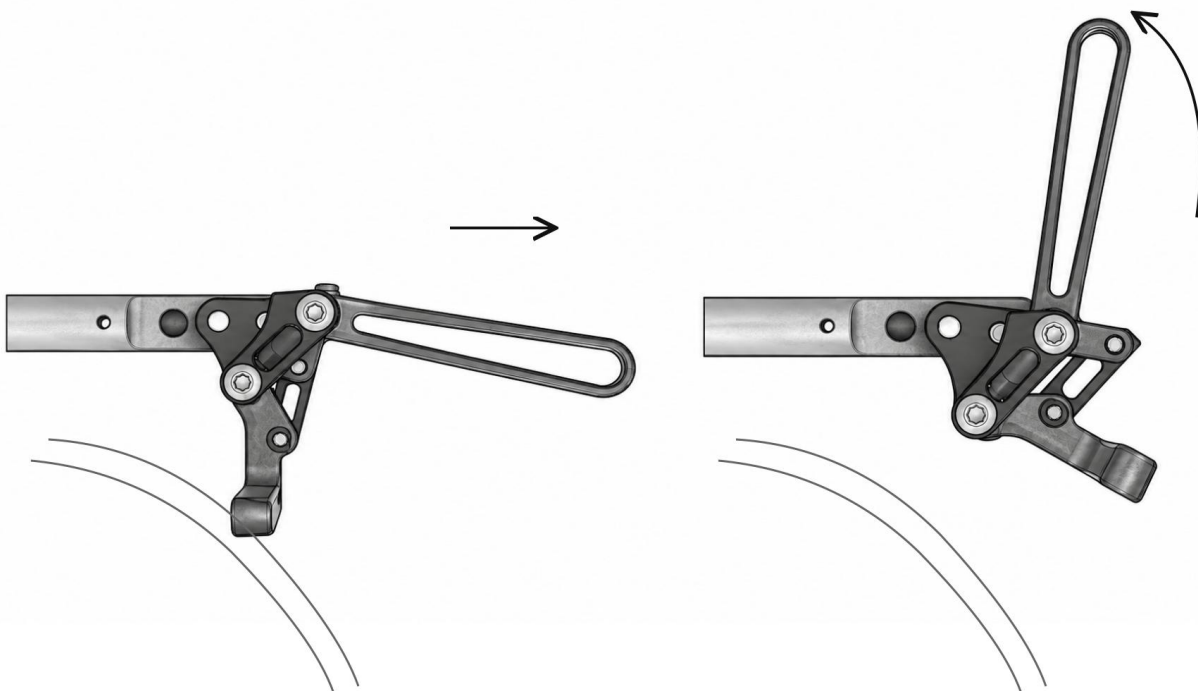
Use this procedure only for the HOC-approved push-to-locks fitted to your chair.

A Locked

Push the loop handle forward.

B Released

Pull the loop handle back.



Tire arc is simplified. Frame and mounting clamp omitted for clarity.
Use the outer grip. Check both locks hold, then release fully clear of the tires.

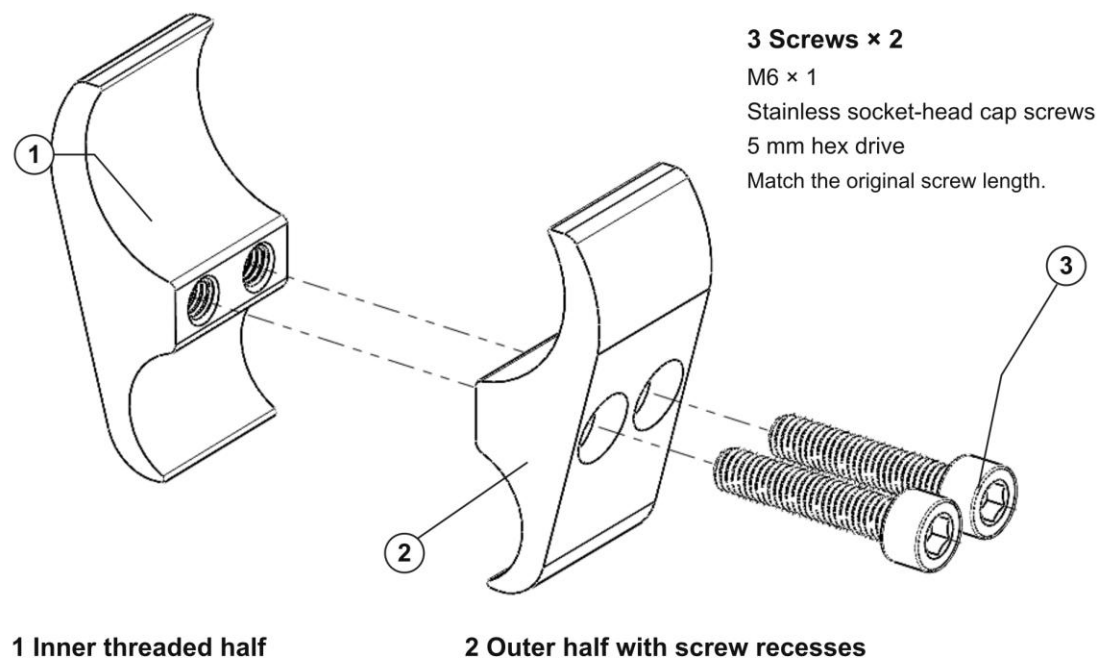
L04 A: locked. B: released. Operate the loop handle from its outer end.

To lock: stop the chair, push each handle forward to the fully engaged position and check that both wheels are held before transferring. To release: pull each handle back through its travel to the released position; check that both wheel stops clear the tires and the wheels turn freely. Keep fingers out of the linkage. Do not use wheel locks to slow a moving chair. Have HOC or your provider correct any failure to hold or release; section 8 covers the clamp setup.

8 Wheel lock adjustment

Wheel lock clamp

Exploded view · the same two-piece clamp supports either wheel-lock style



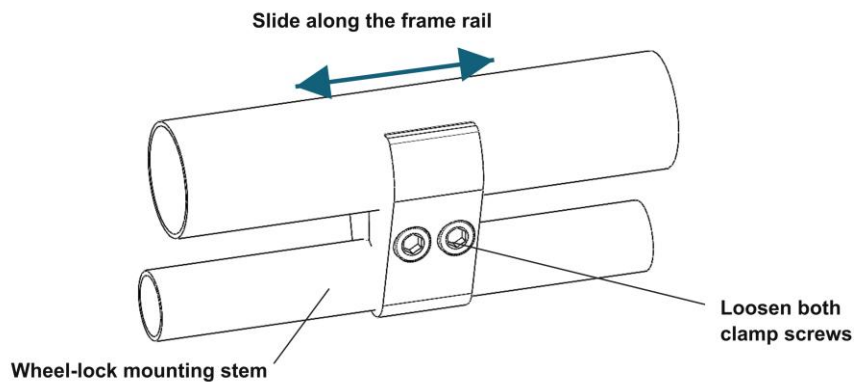
For adjustment, loosen both screws and keep the clamp assembled.

Exploded spacing identifies the parts; it is not an instruction to dismantle the clamp.

L03a Common two-piece clamp with two M6 × 1 stainless socket-head screws and a 5 mm hex drive. Match the original screw length.

The exploded view identifies the parts. For routine adjustment, leave both screws installed and keep the clamp around the frame rail and wheel-lock stem.

Wheel lock positioning



L03b Slide the clamp to set wheel-stop contact. The same adjustment and checks apply on both sides.

Have HOC or your provider adjust the wheel-lock setup. Work with the chair empty and supported so it cannot roll.

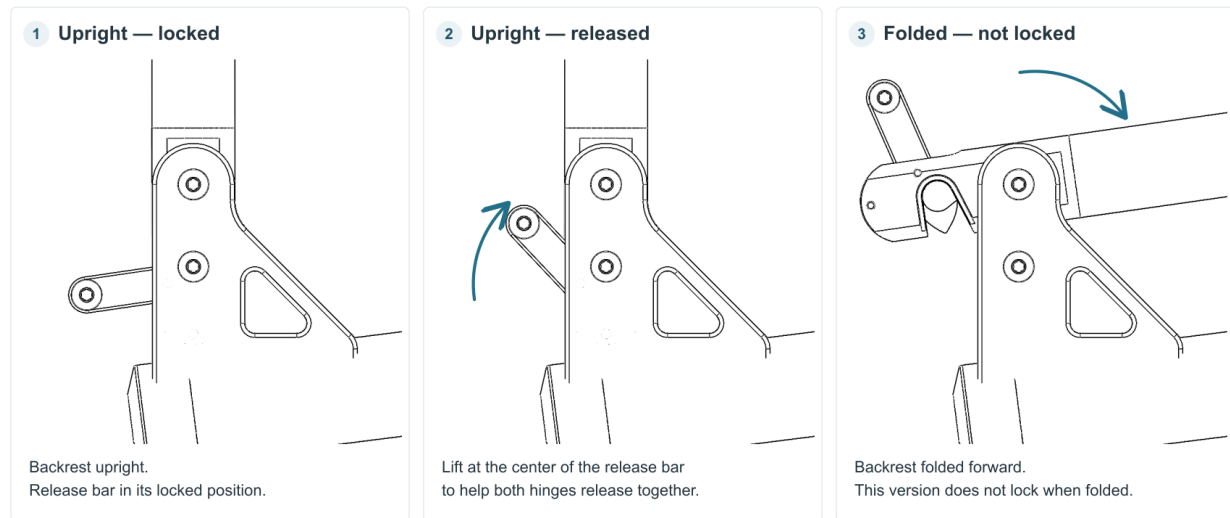
1. Fit the intended rear wheels and set pneumatic tire pressure to the specified value.
2. Support the lock. Loosen both clamp screws enough to reposition it; leave the screws in place.
3. Move the clamp so the applied wheel stop indents the correctly inflated tire by 3/16 in (4.76 mm) and clears it fully when released.
4. When refitting, clean the threads and renew LOCTITE® 243 or equivalent medium-strength threadlocking adhesive. Tighten the screws alternately using the HOC setting for this joint and compound. Repeat on the other clamp and follow the adhesive's cure instructions.
5. Apply both locks and check holding. Release them and check free wheel rotation and hand clearance. Readjust if either check fails.

Setting	Requirement
Clamp screws	Two M6 × 1 socket-head screws per clamp; match the original length.
Tool and compound	5 mm hex key; medium-strength threadlocking adhesive.
Wheel-stop contact	Applied: 3/16 in (4.76 mm) tire indentation. Released: no contact during full wheel rotation.

9 Folding backrest

Locking folding backrest

Release-bar operation and folded position



B04 Locking folding backrest: upright and locked, released, then folded. This version locks upright only. Lift at the center of the release bar.

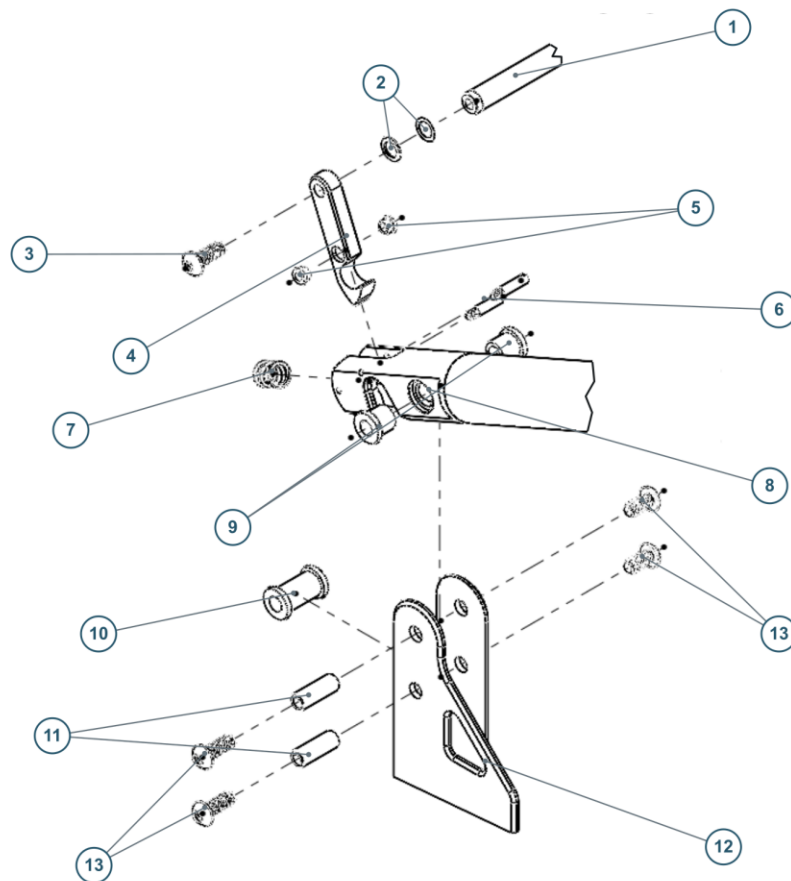
1. Keep the chair empty and stationary. Support the backrest throughout the movement.
2. To fold, lift at the center of the release bar. This helps both hinges release at the same time. With both sides released, guide the backrest forward, then let the bar return to its resting position. The backrest does not lock when folded.
3. To return upright, reverse the sequence: support the backrest, lift at the center of the release bar, raise the backrest, then return the bar to its locked position.
4. With the backrest upright, gently push and pull it forward and backward to check that both sides are fully engaged and locked. Before sitting in the chair, also check each back post and attachment for looseness.

⚠ WARNING Keep fingers clear of closing hinge plates and latch parts to prevent trapping or crushing injuries. Do not sit in the chair if either hinge fails to latch or a post is loose. The backrest and release bar are not lifting handles.

Backrest hinge components

Locking folding backrest hinge

HOC Open Frame • Hinge components and assembly directions



1 Release bar and end bung

Long tubes are shown shortened.

2 Optional spacer washers

Thin: 0.25 mm • Thick: 0.75 mm

3 Release-bar screw

10-32 button head

4 Locking latch

Slides out through the open slot.

5 Latch spacers

One on each side of the latch.

6 Small pivot screws

Shown withdrawn from the head side.

7 Compression spring

Enters axially from the bottom of the post.

8 Upper folding hinge and back post

Shown clear of the fixed plates.

9 Upper pivot: two single-flange sleeves

Insert from opposite sides of the upper hinge.

10 Lower pivot: one double-flange sleeve

Slides in from the rear between the fixed plates.

11 Barrel bolts

Shown on their fastener axes.

12 Fixed side plates

Kept together in their assembled spacing.

13 Side-plate screws

Four 10-32 button-head screws, two per side.

Washer combination depends on the chair's configuration.

Use the specified thin washer, thick washer, both, or neither. Both are shown here for identification.

Tube lengths are shortened for clarity.

B03 Labeled hinge assembly. One side shown; use the corresponding arrangement on the opposite side.

Hinge service information

The exploded view identifies the hinge parts and their entry directions. Hinge work must be performed by HOC or a qualified service provider with the chair empty and the backrest supported. Do not use the drawing alone as a disassembly procedure.

The spring enters along the back-post axis from below. The two upper single-flange sleeves enter from opposite sides of the upper hinge. The lower double-flange sleeve slides in from the rear between the fixed plates. Insert screws from their head sides, toward the receiving threads.

The release-bar washer arrangement depends on the build: 0.25 mm thin washer, 0.75 mm thick washer, both, or neither. Keep the specified arrangement; the drawing shows both only to identify them. Do not add washers simply to match the illustration.

After service, check free release from the center of the bar, correct return, and positive upright engagement on both sides. Gently push and pull the upright backrest to verify locking. This version does not lock folded. Stop use if either side fails to engage, movement binds, or hardware is loose.

10 Footrest height adjustment

Have HOC or your qualified provider set footrest height with the chair empty and supported. Available movement depends on the frame: some builds have no adjustment; others allow up to 6 in (152 mm). This is not permission to move every footrest through 6 in.

Footrest height adjuster

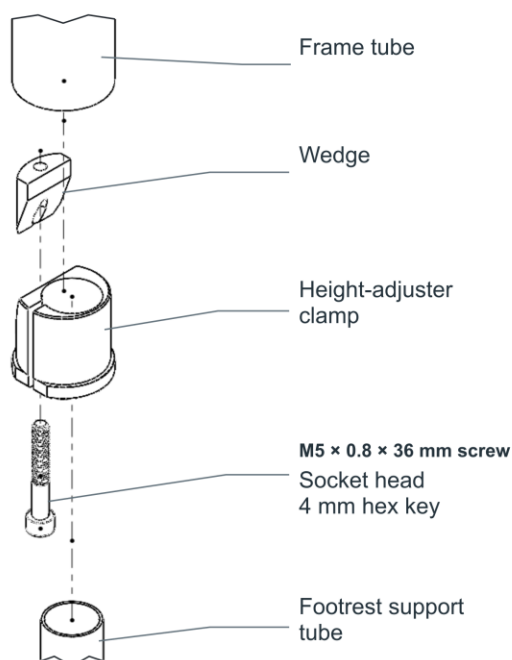
HOC Open Frame • One side shown • Same arrangement on the opposite side

A Assembled



The clamp seats at the lower end of the frame tube.
The footrest support slides inside the clamp and frame.

B Exploded



Apply LOCTITE® LB 771™ nickel anti-seize, or HOC-approved equivalent, to the screw threads and wedge-to-clamp face.

36 mm minimum length. A longer screw must meet the limits in section 10.

Tube ends shortened in view B. Dashed lines show alignment. Footplate omitted.

F02a and F02b Footrest height adjuster, assembled and exploded. One side is shown; the opposite side uses the same arrangement. Dashed lines show alignment. The footplate is omitted.

The exploded view identifies the parts. Routine height adjustment does not require full disassembly. Adjust and check both sides.

Screw specification: M5 × 0.8 × 36 mm socket head. Do not use a shorter screw. HOC permits up to 1/4 in (6.35 mm) additional length only where the screw engages correctly, clamps securely and does not bottom or interfere with another part. The standard length is measured beneath a socket head to its tip.

Footrest adjustment and checks

1. Support the footrest. At each side, turn the clamp screw counterclockwise to loosen it without removing it. Use a 4 mm hex key for the specified socket-head screw.
2. Move the footrest only when the wedge releases freely. If it remains stuck, stop and contact HOC; do not force the assembly.
3. Keep at least 30 mm (1.18 in) of each tube inside its height-adjustment clamp. Leave at least 40 mm (1.57 in) between the lowest part of the footrest assembly and the floor or level ground. Keep the assembly clear of the casters throughout their full swivel.
4. Seat each clamp at the frame-tube end. The flat faces face the left and right sides of the chair; the cutouts are visible from the front. Use the HOC tightening setting for the lubricated joint. Check both sides for retention, 30 mm insertion, 40 mm ground clearance and clearance through the casters' full swivel.

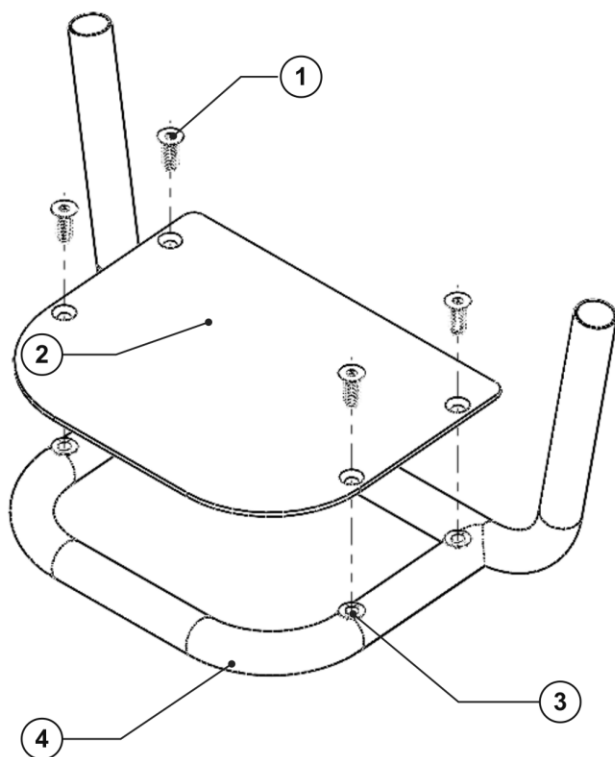
⚠ WARNING Do not stand on the foot support when transferring. A footrest that strikes a raised object can stop the chair suddenly and cause a fall. Keep at least 40 mm ground clearance and avoid objects the footrest could strike; 40 mm is not an obstacle-climbing rating.

Footplate and support tubes

Four countersunk screws secure the carbon-fiber footplate to factory-installed rivet nuts. The plate normally stays installed. Removal is a service task for cleaning or replacing a damaged part. Leave the rivet nuts attached to the tubes.

Footplate and support tubes

Exploded view · factory-installed rivet nuts remain attached to the tubing



Soft side faces the tubes to prevent contact noise.
Apply medium-strength threadlocking adhesive to the screw threads.

1 Countersunk screws × 4

M6 × 1, approximately 18 mm long
Stainless steel · 4 mm hex drive

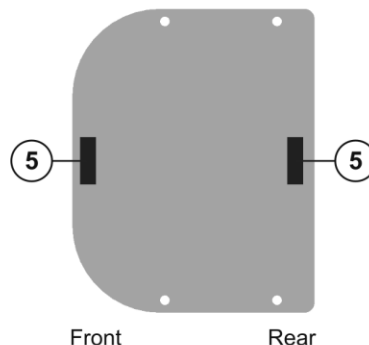
2 Carbon-fiber footplate

3 M6 × 1 rivet nuts × 4

Installed at the factory.
Stay in place when plate is removed.

4 Footrest support tubes

Underside of footplate



5 Soft loop strips × 2

Adhere beneath the plate at the center of the front and rear tube contact areas.

F03 Footplate assembly and underside strip placement. Rivet nuts stay with the tubing.

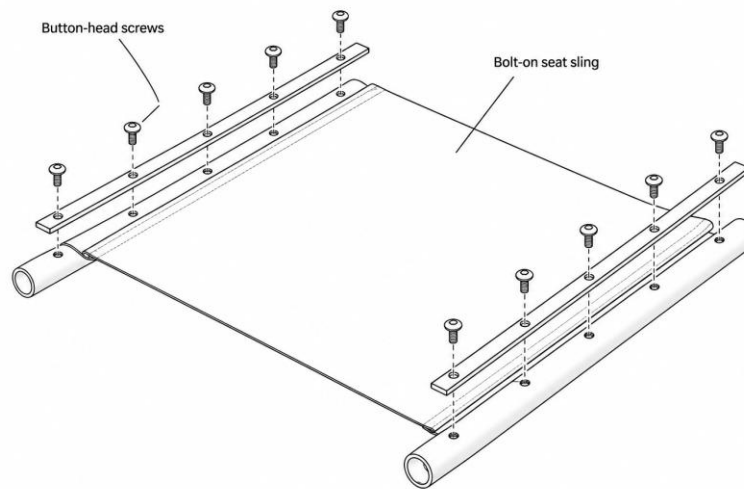
Footplate refitting

Before removing the footplate, record its front/rear orientation and the two soft loop strips underneath. Clean the rivet nuts without loosening them. Refit the plate in the same direction; do not force it into a reversed position. Renew LOCTITE® 243 or equivalent medium-strength threadlocking adhesive on the screws. Start all four screws by hand, tighten to the approved joint setting and confirm that the plate is secure.

Keep or replace the soft loop strips at the center of the front and rear tube contact areas under the plate. They reduce contact noise and do not replace secure fastening. Keep adhesive and debris out of the rivet nut threads.

Foot loops, when fitted, help limit sideways foot movement off the plate. Their hardware is omitted from F03. Calf-strap loops may also be fitted; a calf strap is not supplied.

11 Bolt on seat sling



S01 Bolt-on seat sling with five screws per side. See S01b for the adjustable underside folds.

The sling sits on top of the frame rails and bolts into frame rivet nuts with five screws on each side. Aluminum strips inside the fabric spread the fastening load. The fabric does not wrap around the rails. The adjustment folds are underneath. HOC sets the tension at manufacture.

Before use

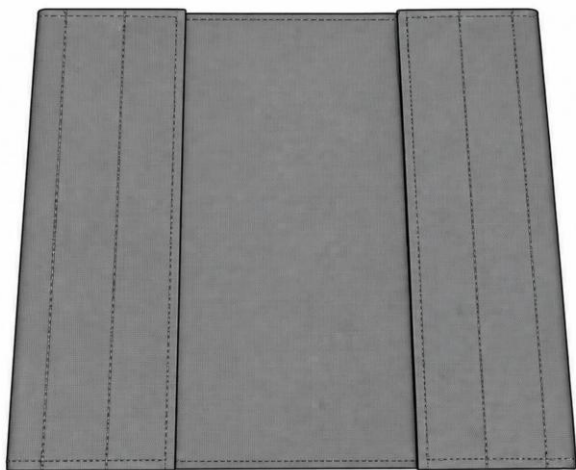
Check for damage, sagging, loose flaps and loose attachments. After removal or replacement, a qualified service person must restore the correct support and tension. Do not use a sagging sling or one that lets the user contact the crossbar underneath.

Removal and refitting

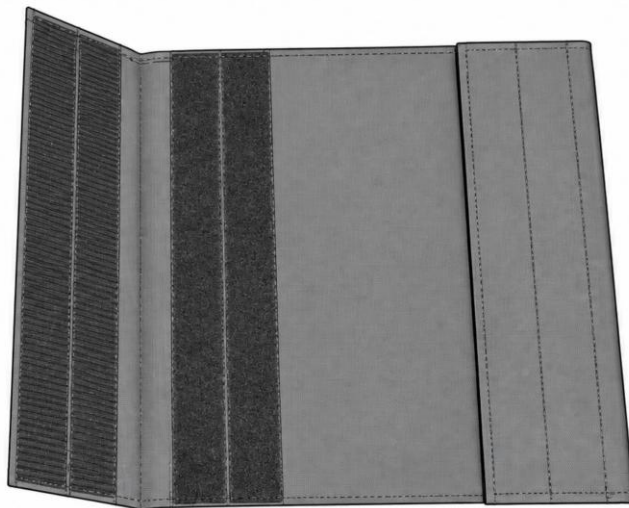
Have a qualified service person remove and refit the sling. Retain the aluminum strips in their fabric channels. Align all ten fixing holes and start every screw by hand. Refit five screws per side with LOCTITE® 243 or equivalent medium-strength threadlocking adhesive and the approved joint torque. Do not use the chair with missing screws, a spinning rivet nut or unsecured fabric.

Seat sling underside adjustment

A Both sides folded closed



B One side opened to show the adjustment



Both sides have the same adjustable hook-and-loop fold. The right side remains closed in B.

S01b A: both underside folds closed. B: left fold opened; the right fold remains closed. Both sides adjust in the same way.

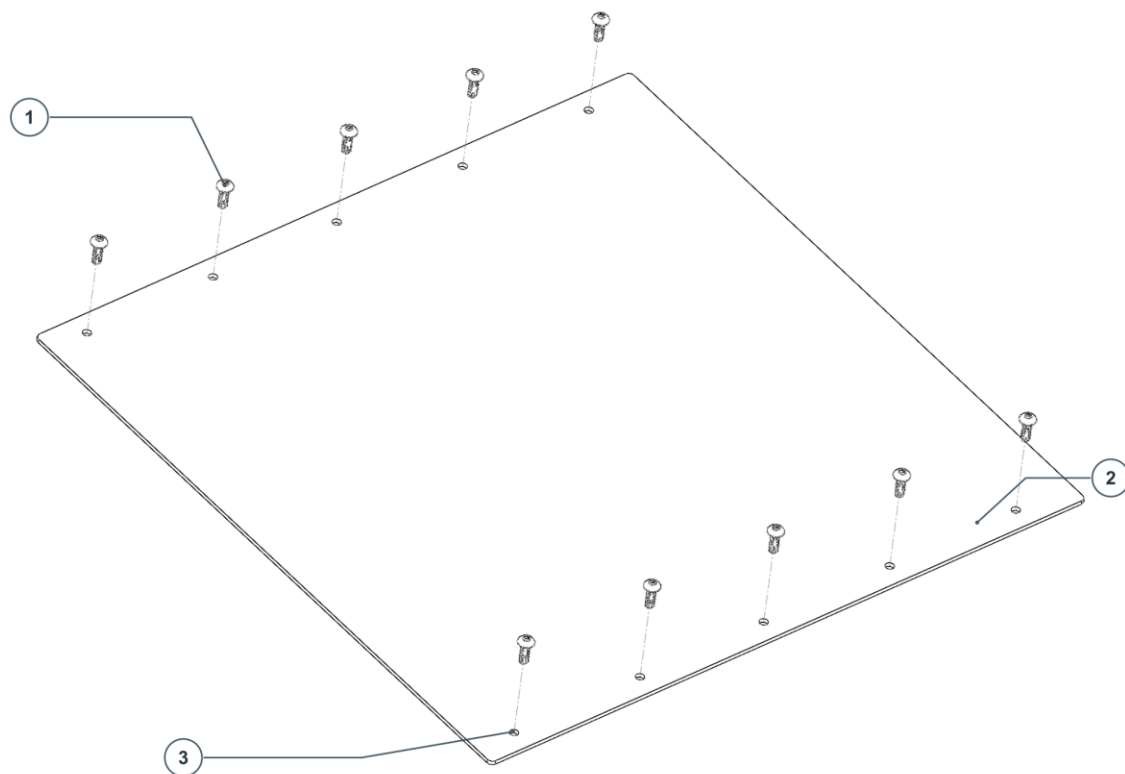
With the chair unoccupied, have HOC or a qualified provider set the sling support and tension. Open the underside hook-and-loop fold as needed, position the fabric for the required support, then press the full mating surfaces firmly together. Repeat on the other side; both sides must be securely closed. Keep the reinforcing strips and bolt-on attachment in their original positions.

Check the ten screw attachments, both closed folds and support before use. The fabric remains on top of the frame rails; these folds do not wrap around the rails. Do not use the chair if the sling sags onto the crossbar, slips, tears or will not remain fastened.

Optional carbon seat pan

Carbon-fiber seat pan attachment

Ten button-head screws • Five on each side



1 10-32 button-head screws × 10

Use the specified medium-strength threadlocker.

3 Screws pass through the pan into factory-installed frame rivet nuts. Frame and rivet nuts omitted for clarity.

Dashed lines show screw alignment. Keep all ten fixings; use the pan and hardware specified for the chair.

2 Carbon-fiber seat pan

Use the seat pan specified for the frame.

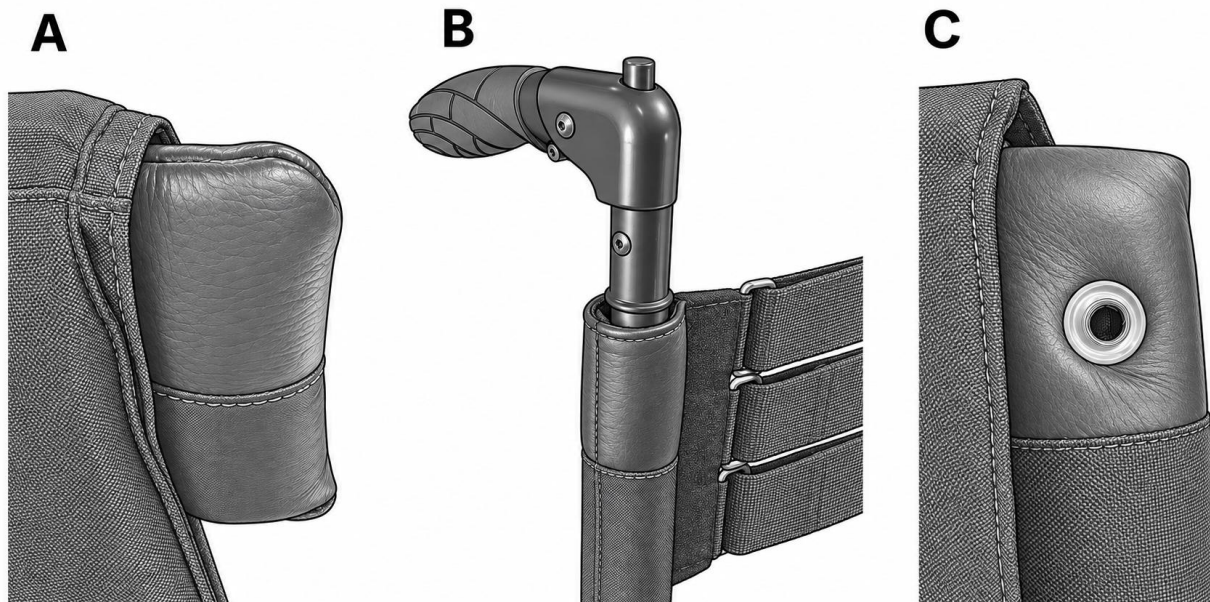
S03 Carbon-fiber seat pan and ten screws, five per side. Dashed lines show screw alignment. The screws fasten into frame rivet nuts; the frame and rivet nuts are omitted for clarity.

Use the seat pan and hardware approved for the chair. Keep all ten screws installed. Do not enlarge holes or force the pan into place. Have HOC or a qualified provider replace a damaged pan and check its fit and fastening before use.

12 Back support and clothing guards

Backrest upholstery versions

The HOC soft backrest has an inner support with a sleeve over each back post and three adjustable hook-and-loop straps between them. A padded cushion folds around this support. Use the cover version supplied for your chair.



S02a A: closed top. B: open top with a push cane inserted. C: open-top retaining grommet; screw not shown. One side is shown in each detail; the other side uses the same arrangement.

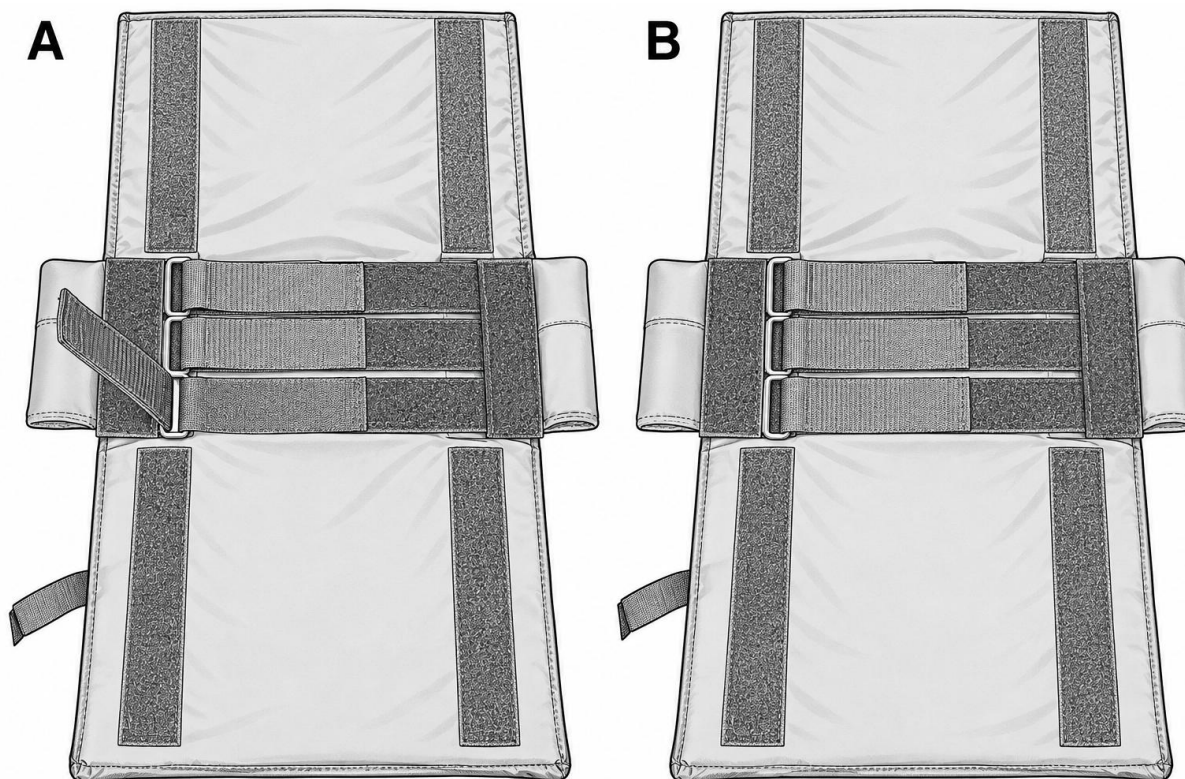
Closed top (A). The upholstered sleeve covers the top of the back-post tube. This version does not accept a push cane through the top.

Open top (B and C). One HOC standard stainless 10-32 button-head screw, approximately 14.5 mm overall including the head, passes through each retaining grommet into its back-post tube. Refit both screws with LOCTITE® 243 or an HOC-approved equivalent medium-strength blue threadlocking adhesive. Follow preparation and cure instructions. Do not use the chair with a retaining screw missing or loose.

The upholstery retaining screw secures the fabric sleeve. It does not replace the push cane's own retention system. Follow the instructions for the fitted push canes and check their retention separately.

Adjusting the three support straps

Have your qualified provider establish the support shape and tension that suit you. Strap adjustment fits the support to the chair width and changes how much the backrest gives or sags. These are backrest straps; the bolt-on seat sling is covered in section 11.

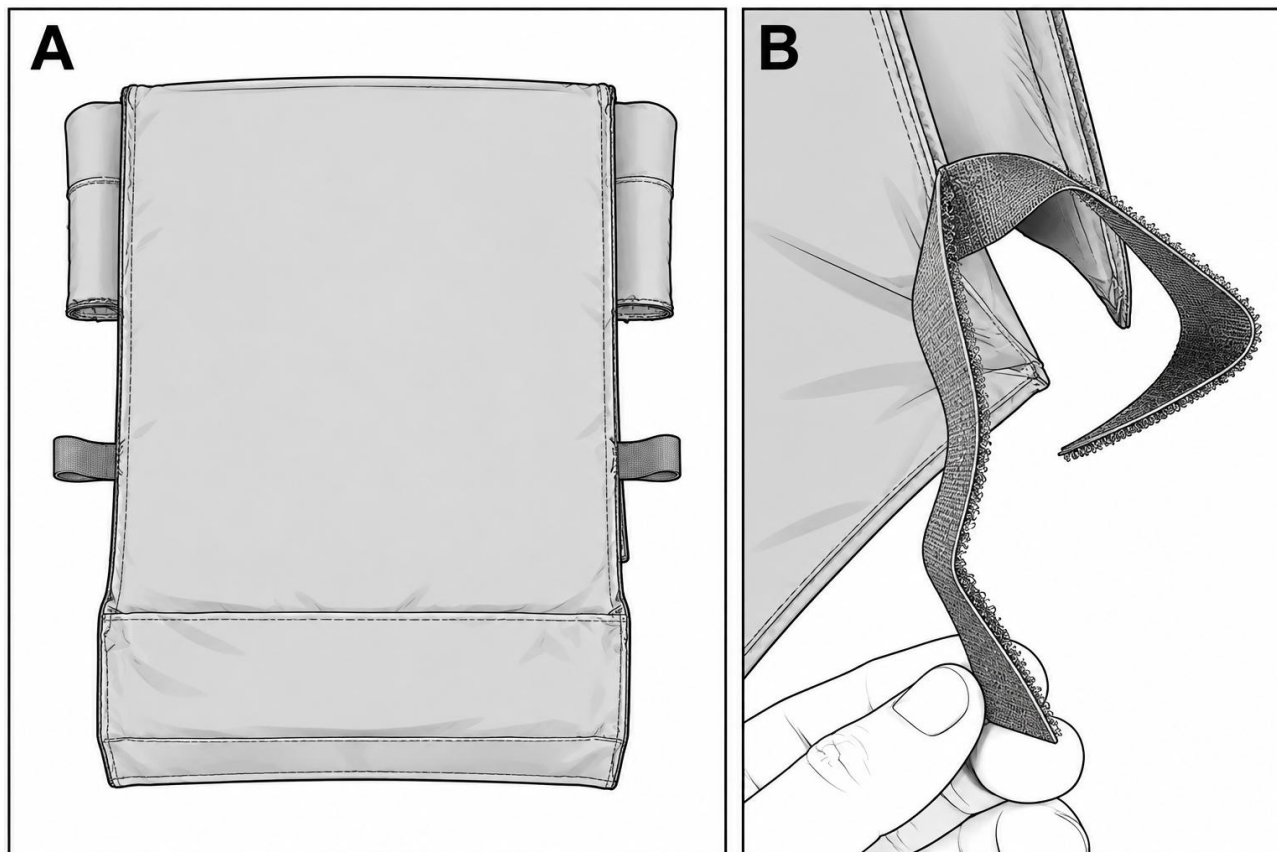


S02b A: one strap opened for adjustment. B: all three straps secured. Tube sleeves are at the far left and right. The long textured strips on the cushion align with the strips beside the adjustable support. Shown off the chair to reveal the parts.

1. With the chair unoccupied and wheel locks applied, release the cushion's hook-and-loop attachments and unfold it enough to expose all three straps. Keep the post sleeves fitted for tension adjustment.
2. Peel open one strap at a time. Keep it routed through its metal loop. Shorten its working length for a firmer support or lengthen it for more give, following the shape set with your provider.
3. Lay the strap flat and press its mating hook-and-loop surfaces firmly together. Repeat as needed for the other straps. All three must be securely closed before refitting the cushion.
4. Refit the cushion and retaining loops as shown on the following page. Have your provider check the finished support and your seated position before returning to use.

⚠ WARNING Do not pull the back posts together by overtightening the straps. Check that the backrest still folds freely and locks upright on both sides. Do not use the chair if a strap will not stay fastened or the support is damaged.

Refitting the cushion and lower loops

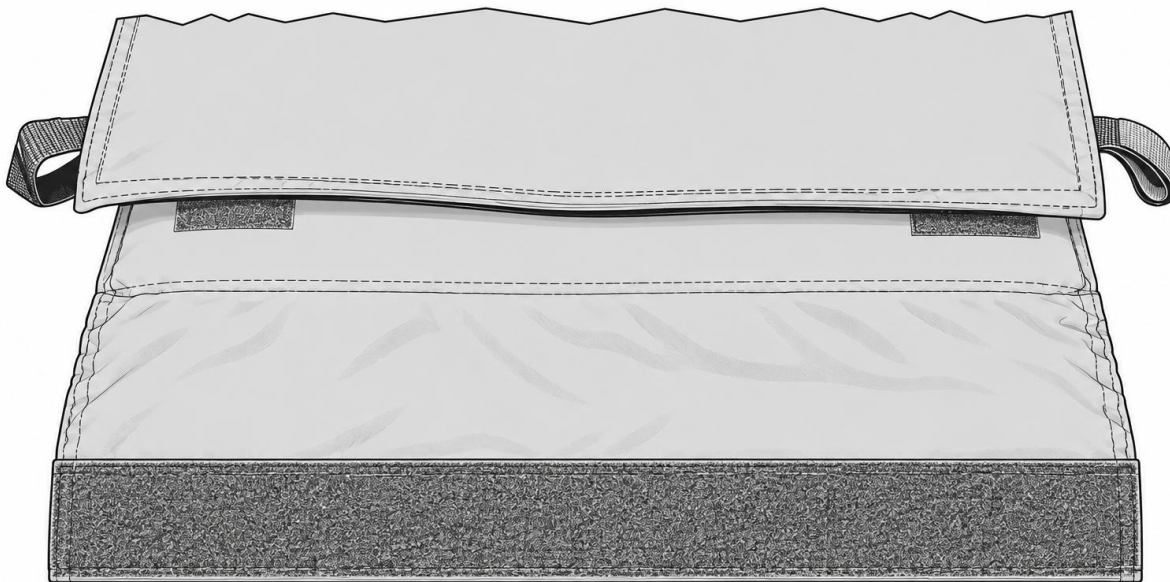


S02c A: cushion folded around the support; lower retaining loops extend from both sides. B: one loop opened to show its mating ends. The post is omitted from this off-chair detail.

1. Check that all three tension straps are closed and both post sleeves are correctly seated. For the open-top version, check the grommet retaining screw on each side.
2. Line up the cushion's hook-and-loop strips with the matching strips on the inner support, as shown in S02b. Press the mating strips together along their full contact area.
3. Fold the cushion around the adjustable middle section. Align and press the remaining mating strips together. Smooth out folds so the cushion lies evenly and does not leave the adjustment straps exposed against the user.
4. Wrap each lower retaining loop around the lower part of its back-post tube. Press its two hook-and-loop ends together firmly. Repeat on the other side. These loops help keep the cushion in place.

Keep the loops and loose fabric clear of the folding hinges, release bar and wheels. The loops retain the upholstery; they are not handles or lifting points.

Privacy flap and final checks



S02d The broad horizontal hook-and-loop strip is the privacy-flap attachment. The upper cushion is cropped to keep this detail clear.

Attach the privacy flap by aligning its mating hook-and-loop strip with the strip on the backrest upholstery. Press firmly across the full width. Smooth the flap and keep loose edges away from the release bar, hinges and wheels.

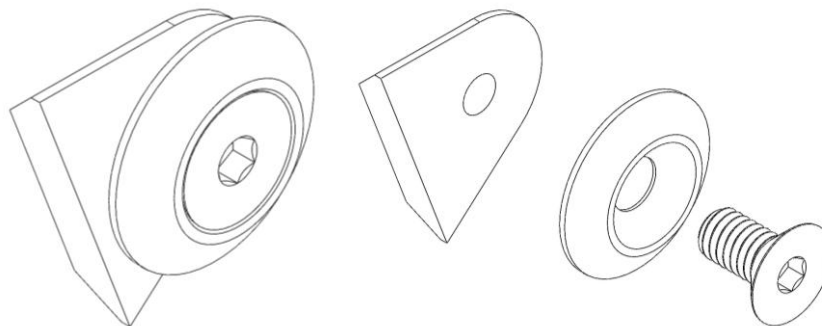
Before using the chair

Check that all three tension straps are fastened, the cushion's mating strips are aligned and attached, both lower retaining loops are closed, and the privacy flap is secure. On the open-top version, check both grommet screws and the push canes' separate retention systems.

With the chair empty, check the folding action and return the backrest fully upright. Gently push and pull it to confirm both sides are locked, as described in section 9. This backrest does not lock in the folded position.

Do not use torn fabric, broken stitching, a damaged grommet, a loose screw or hook-and-loop fasteners that do not hold. Have HOC or a qualified provider correct the problem. Fabric and foam must be fully dry before use; see section 18 for cleaning.

Carbon-fiber clothing guards



S04a and S04b Actual tab, saddle and screw, with the carbon panel omitted. S04c shows the complete fixing order.

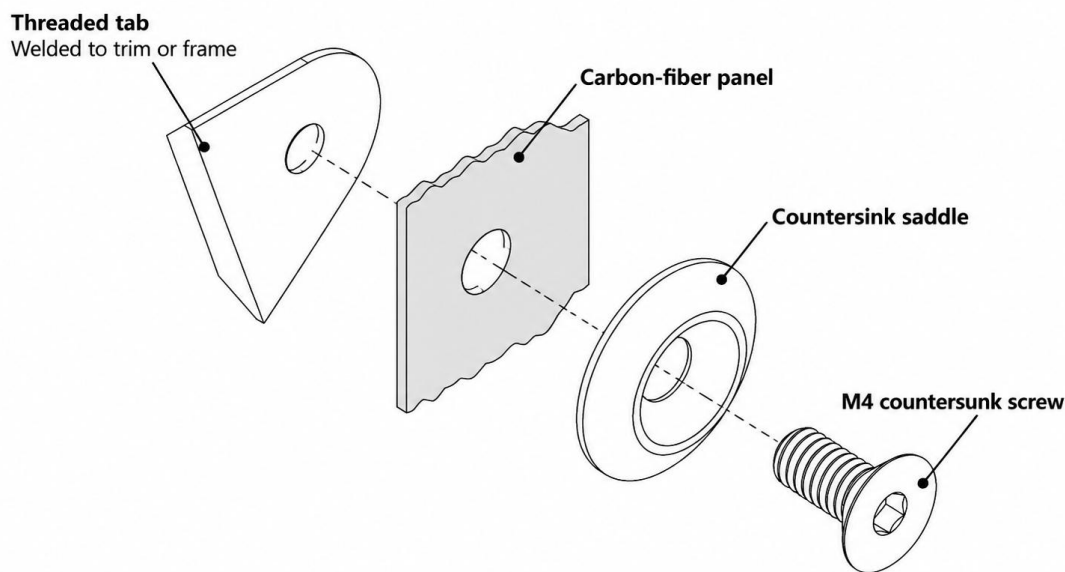
Only the attachment tab is welded to the trim or frame. Each countersunk screw sits in a saddle, passes through the carbon panel and threads into the tab. The carbon panel is clamped between the saddle and tab. Use every mount provided for that panel. The number of mounts varies; some builds use a different arrangement with no such tabs.

Apply LOCTITE® 263 or equivalent high-strength threadlocking adhesive to the clothing-guard screw threads. This is a professional service joint; follow the adhesive's preparation, cure and removal instructions without damaging the carbon panel or welded mount.

⚠ WARNING Do not use a clothing guard or upholstery as a lifting handle.

Clothing guard fixing stack

Clothing guard fixing



The panel sits between the saddle and threaded tab.

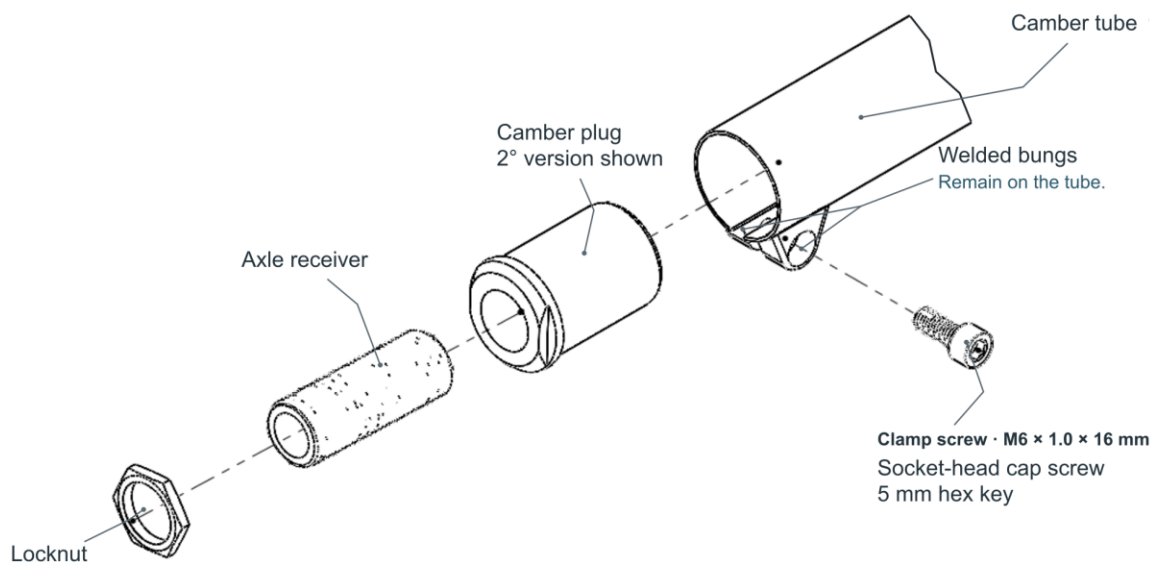
S04c One clothing-guard fixing exploded along the screw axis. The carbon panel sits between the saddle and welded tab.

13 Axle receivers and camber

Use matching camber plugs: 0°/0°, 2°/2°, 4°/4° or 6°/6°. Never mix angles. Each side adjusts independently. With nonzero camber, the bottom of each rear wheel must sit farther out than its top. A reversed plug can put the wheel at the wrong angle.

Camber tube system

HOC Open Frame • Exploded assembly • One end shown



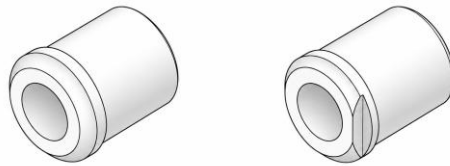
Apply LOCTITE® LB 771™ nickel anti-seize, or HOC-approved equivalent, to the clamp screw threads.
Use the HOC tightening setting for this joint and compound.

Tube shortened in this illustration only. Dashed lines show assembly alignment.

J03 Camber tube system with assembly guide lines. The welded bungs remain attached to the tube. The screw, camber plug, axle receiver and locknut are removable. One end is shown; use matching plugs on both sides.

Clamp screw: M6 × 1 × 16 mm stainless steel socket-head cap screw; 5 mm hex key. Apply the specified anti-seize to its threads. Tighten to the approved value for that joint and anti-seize.

Camber plugs and wheel alignment



J01 Zero-camber plug without flats and nonzero-camber plug with flats.

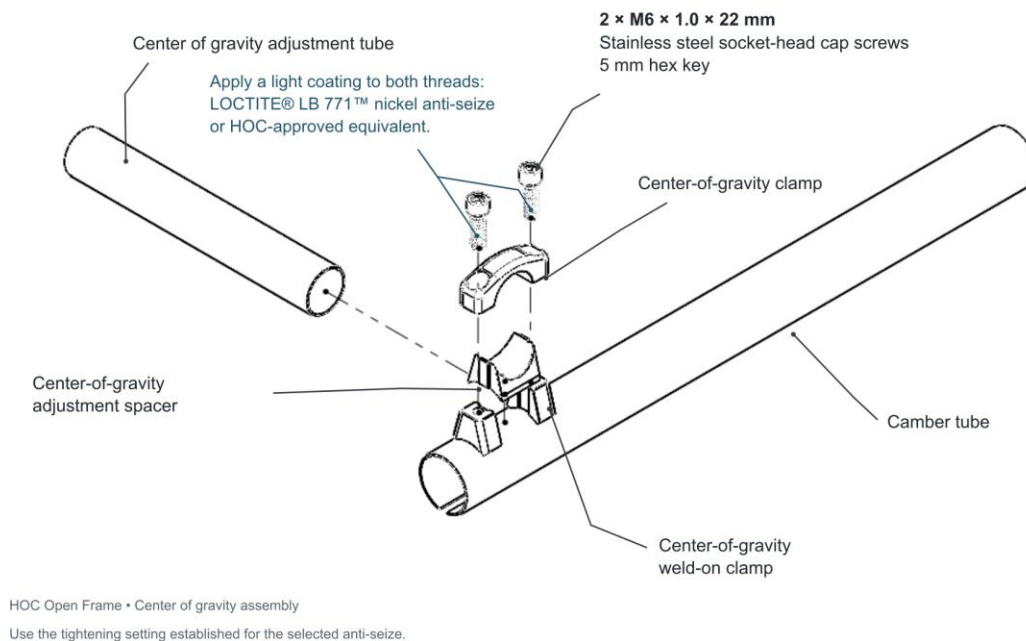
Have HOC or a qualified provider set the axle receivers and camber plugs. Each HOC plug adjusts independently. Use the following measuring method together with the build's alignment datum and approved clamp torque; equal front and rear wheel spacing alone does not establish that both wheels point straight ahead.

Checking toe alignment

1. Place the empty chair on level ground with matching rear wheels and correct pneumatic tire pressure. Check wheel trueness first. Secure the chair against rolling without applying the wheel locks, which can affect this measurement.
2. With the casters trailing and all wheels resting normally, measure floor-to-axle-center height. Mark a consistent measuring surface at that height at the front and rear of each rear wheel.
3. Measure between matching left/right marks at the front, then at the rear. Aim for equal spacing within HOC's approved tolerance. A smaller front spacing indicates toe-in; a larger front spacing indicates toe-out.
4. Because each HOC plug adjusts independently, check each wheel against the chair's approved forward-direction datum as well. Two parallel wheels can still point to the same side. Do not assume that matching the two cross-chair measurements alone centers them.
5. Where adjustment is needed, support the assembly, loosen the appropriate clamp screw and rotate only that plug in small increments. Keep matching camber angles, correct upright orientation and the specified axial position. Recheck both sides after each change.
6. Apply the specified anti-seize and the HOC clamp torque, then remeasure. Check free wheel rotation, axle retention, wheel locks and handling before use. Zero-camber plugs have no flats.

14 Center of gravity adjustment

Center of gravity adjustment



J04 Center of gravity adjustment system with assembly guide lines. Welded clamps remain attached to the camber tube. Removable parts are separated for identification.

Rear-wheel position affects balance and stability. Have HOC or your provider change the center-of-gravity setting and check the complete chair setup afterward.

Screw callout: two M6 x 1.0 x 22 mm stainless steel socket-head cap screws are shown. Use a 5 mm hex key.

Apply a light coating of the specified anti-seize to both screw threads. Keep the tube-gripping surfaces free of anti-seize. Use LOCTITE® LB 771™ nickel anti-seize, or an HOC-approved equivalent. Use the tightening setting established for that product and joint.

Use the selected compound's technical data for preparation and assembly. An equivalent must be approved for the joint materials and the same validated tightening process. See appendix B.

Center of gravity service adjustment

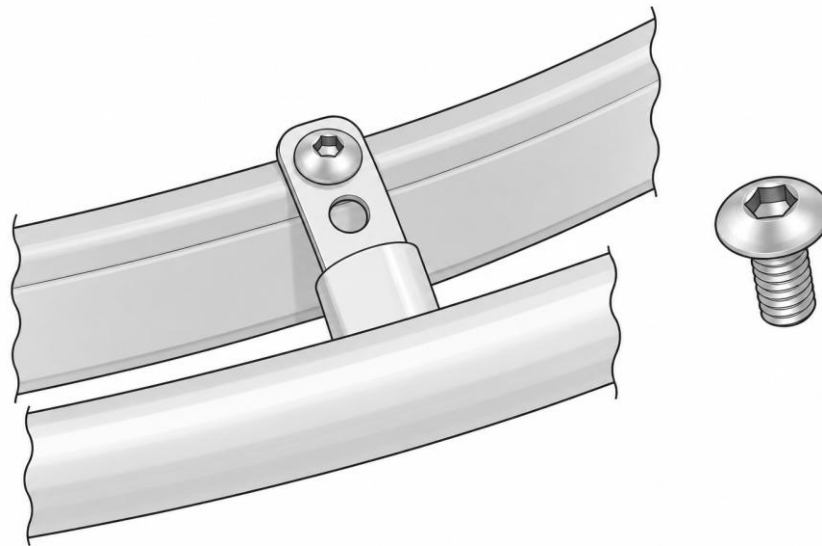
1. Support the empty chair. The COG zero reference is the front surface of the back-post tubes. Record the current left and right clamp positions from that reference before loosening the assembly.
2. Support the axle assembly. Loosen the two COG clamp screws on each side only enough to permit controlled movement.
3. HOC specifies a COG setting range of 1–6 in (25.4–152.4 mm), subject to the chair configuration. Keep both clamps completely on the straight, horizontal portion of the COG adjustment tubes. The bend is the forward physical limit: no part of a clamp may sit on the bend. The clamp's full width must remain on straight tube.

The full 1–6 in range does not establish compatibility or a safe setting for every chair. Use the smaller range permitted by the fitted parts, clearances, alignment and stability. Set both sides consistently and recheck the complete chair after adjustment.

4. Use the specified anti-seize and the approved torque for that joint and compound. Tighten each clamp's two screws alternately and recheck both. Check wheel retention, toe, tire clearances, wheel-lock position and stability before returning to use.

⚠ WARNING Do not return the chair to use until the adjustment is secure and the resulting stability has been checked.

15 Pushrim attachments



W02 HOC 10-32 hex-socket button-head attachment. One of six tabs shown. The installed rivet nut is hidden inside the rim; no separate nut is used.

Each fixing passes through one of the pushrim's six mounting tabs and threads into a rivet nut in the wheel rim. The screw head stays on the tab side. This arrangement has no separate outside nut. Six tabs alone do not establish that a different pushrim fits the wheel or chair.

Inspection and repair

Before each use, check that the pushrim and all six tab fixings are secure. Inspect for cracks, loose screws, sharp edges and peeling surfaces. Do not use a loose pushrim or a turning rim insert; have HOC or a qualified provider repair the fault.

Both versions use 10-32 threads. The HOC stainless hex-socket button-head screw measures approximately 14.5 mm overall. The Phillips screw measures approximately 15.85 mm overall (about 5/8 in). Both measurements include the head, from the top of the head to the threaded tip. Match the original head, threaded length and engagement; do not substitute M5.

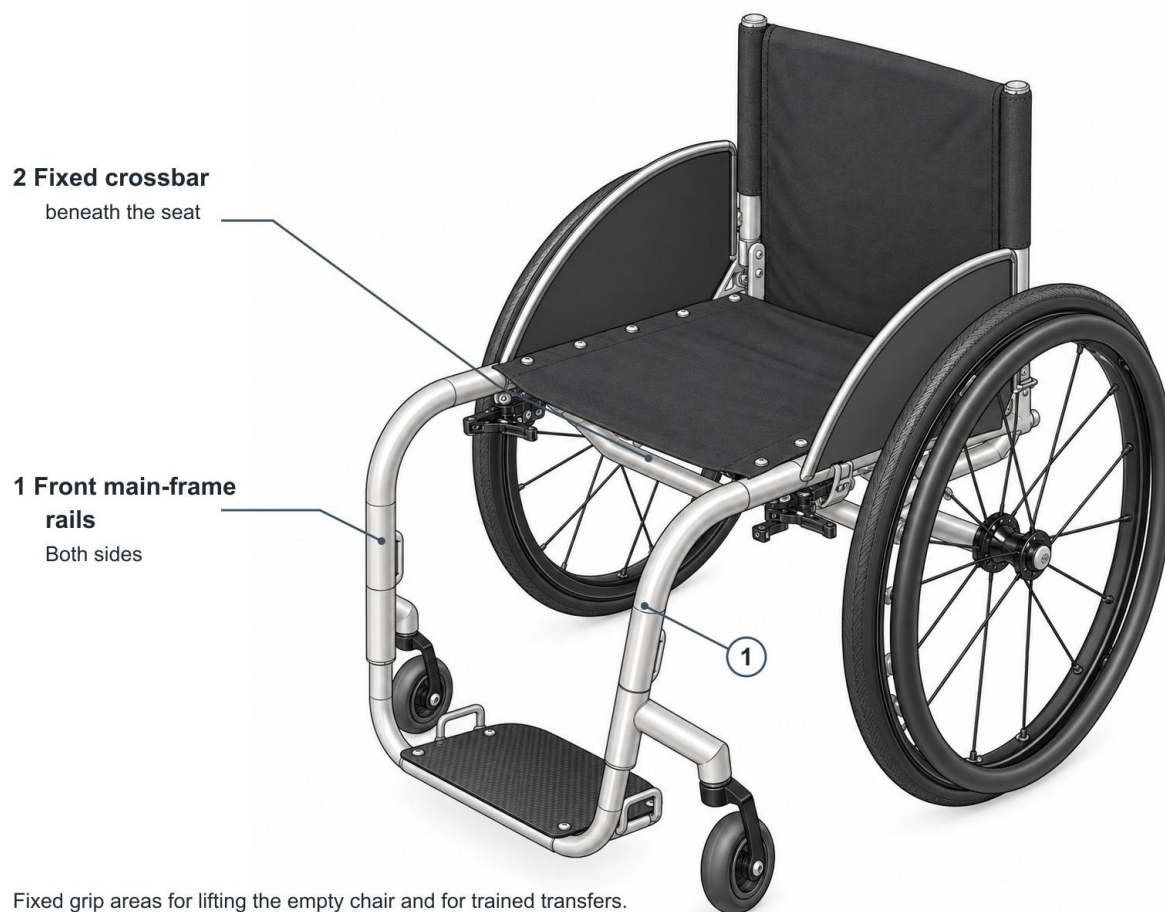
HOC hex-socket screws use LOCTITE® 243 or an HOC-approved equivalent medium-strength blue threadlocking adhesive. Follow the product's preparation and cure instructions. The Phillips screws fitted by Spinergy use its specified assembly procedure; HOC reports no added threadlocking adhesive. Check all fixings before each use and after service. Do not add adhesive or apply a generic torque to a rivet nut joint without its approved service setting.

16 Lifting and transport

Lifting the empty chair

Lift the empty chair using the front main-frame rails (1) or the fixed crossbar beneath the seat (2), labeled in R02. Take a secure grip on a sound, clean, dry surface and keep fingers clear of hinges and wheel locks. Back posts, the backrest rigidizer and the release bar are not lifting points. Do not carry an occupied chair under these instructions.

⚠ WARNING Do not lift by the folding backrest, release bar, upholstery, footrest, clothing guards, pushrims, removable wheels or removable handles.



Fixed grip areas for lifting the empty chair and for trained transfers.
Do not lift an occupied chair. Keep fingers clear of moving parts.

R02 Safe fixed-frame grip areas. 1: front main-frame rails, both sides. 2: fixed under-seat crossbar. Use these supports with the transfer technique taught by your qualified professional. The illustration does not authorize occupied-chair lifting.

Prevent damage to the grip areas

⚠ WARNING Do not drag or scrape the wheelchair frame across the ground. Contact can damage the front frame rails and other tubes and can leave sharp edges, burrs or other surfaces that can cut or injure someone. If this occurs, stop using the chair and its grip areas until HOC or a qualified service provider has inspected and corrected the damage. Do not file or grind the frame yourself.

Preparing the chair for transport

1. Remove the occupant before preparing the chair for transport.
2. Fold the backrest using section 9 if needed.
3. If removing the rear wheels, use section 5.
4. Where space allows, transport with the backrest upright and latched. If it must remain folded, control and secure it against unexpected movement; it does not lock folded. Secure the empty chair and removed parts as instructed for the vehicle and securing equipment.

⚠ WARNING Do not use this wheelchair as an occupied seat in a motor vehicle. It is not designed to comply with the occupied-transport requirements of ISO 7176-19, ANSI/RESNA WC19 or AS/NZS 3696.19. Transfer to a vehicle seat and use its occupant restraints. Failure to do so can cause serious injury or death in a crash.

17 Inspection and servicing

Use the checks in section 2 before each use. Arrange service when there is wear, damage, loose hardware or a change in handling. A failed retaining mechanism must be corrected before the chair is used.

Part	Inspection and service point
Frame and welded mounts	Cracks, bends, dents, damaged welds, looseness, ground abrasion, sharp edges and burrs. Check the marked grip areas without sliding a bare hand over damaged surfaces.
Rear wheels and axles	Axle retention, free rotation, bearing play, wheel trueness, rim/hub cracks and damaged or loose spokes. Use the wheel maker's instructions for spoke and bearing service.
Front casters and forks	Free rotation, secure housing and fork attachments, bearing play, tire damage and persistent flutter. Remove accessible hair or debris without disturbing the housing or bearings.
Wheel locks	Holding when applied, full clearance when released, and no loose or worn pivots or clamp movement
Backrest and release bar	Secure latch engagement, free operation and sound hardware
Foot support	Secure clamps, correct position and clearance
Sling and back support	Dry, sound fabric and foam; secure seat attachments and flaps; no seat sag onto the crossbar. Check backrest straps, cushion strips, lower loops, privacy flap and open-top screws as described in section 12.
Guards and pushrims	All fixings secure; no cracks, splinters, rough edges, peeling grip surfaces, loose tabs or turning rim inserts
Labels	Present, attached and readable

Also check that the empty chair rolls straight on level ground, that all pushrim fixings remain secure and that no wheel rubs the frame or guard. Unexpected pull, wobble, squeaks or looseness require investigation. Do not hide a fault by adding lubricant or overtightening a bearing.

Professional service

Have HOC or a qualified service provider perform repairs, bearing service and setup adjustments. After service, repeat the affected checks and the complete pre-use check. Record the work against the chair's serial number, including who performed it, the date of action, and when the next inspection is due.

Before every use: perform section 2. At least monthly: clean and inspect bearings and surrounding parts as directed by their manufacturers; do not dismantle or oil sealed bearings unless instructed. At least every three months: a qualified service person checks the complete chair and applicable joint settings. Arrange earlier service after impact, loose parts, unusual noise, harsh exposure or changed handling.

Inspection intervals and return to use

These intervals are minimum inspection points. Increase the frequency for heavy use, rough conditions or a change in performance. Follow any shorter interval specified for a fitted component. A scheduled service date is not permission to keep using a defective chair.

Before every use

Complete section 2. Check both axle retainers, tire condition and pressure where applicable, wheel-lock holding, backrest latches, seat and back support, foot support and any fitted handle or anti-tip locks. Look for cracks, looseness, sharp edges and interference.

At least weekly

Inspect rims, spokes, pushrims and tires more closely for damage, wear and looseness. Check accessible fasteners, support straps, upholstery seams and attachment points. Check that clothing guards and accessories remain secure and clear of wheels. Do not continue use after a failed check.

At least monthly

Clean and inspect the chair as described in section 18. Check grips, straps, labels and the areas around bearings and moving joints. Follow the component maker's bearing instructions; do not dismantle or oil sealed bearings unless instructed.

At least every three months

Have a qualified service provider inspect the complete setup, fastener retention, wheel and caster condition, alignment, wheel locks, seat and back supports, folding mechanism and fitted accessories. Check compound condition and joint settings through the applicable service procedure.

After impact or a significant change

Stop use after a fall, collision or hard strike when damage is suspected. Have HOC or a qualified provider inspect it. After adjustment, replacement, a long storage period or a change in the user's needs, complete the relevant service and setup checks before reuse.

Record and return to use

Record inspections, repairs and replacements against the chair serial number. Submit the record to HOC or the servicing dealer and keep a copy with the chair. Only return the chair to use after faults are corrected and retention, function, clearance and pre-use checks pass.

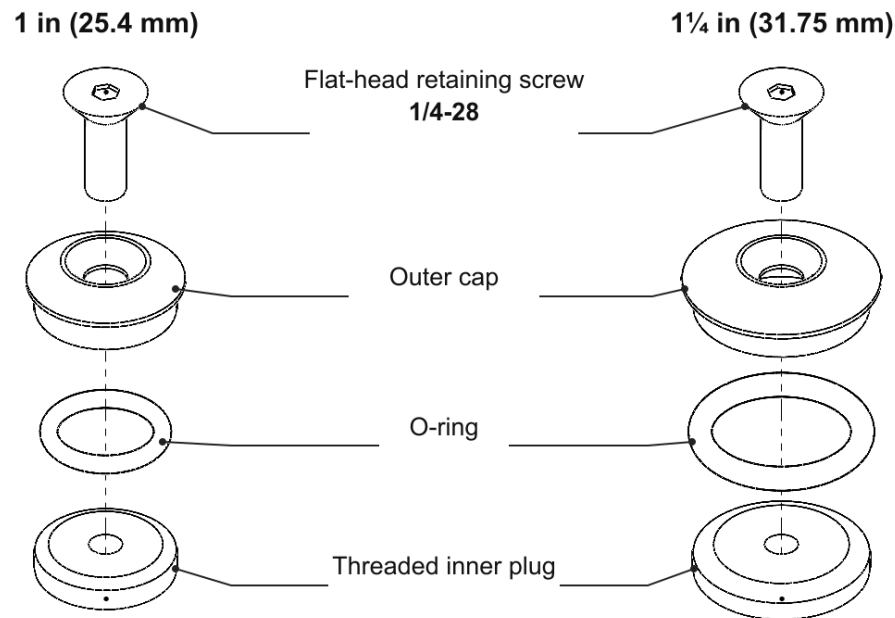
⚠ WARNING A visual check cannot establish that hidden impact damage is safe. Do not straighten bent parts, weld a repair or retighten an unidentified joint as a substitute for the required service assessment.

Tube caps

Use the cap size specified for the tube. The diagram shows the shared assembly arrangement; the 1 in cap has two applications listed below. Caps must be secure and free of damage.

Tube caps

Exploded assemblies with alignment lines · sizes refer to tube outside diameter



Back-post tops without in-tube push handles
COG tube rear ends without in-tube anti-tips

Rear ends of main frame rails

Use the matching cap, inner plug and O-ring for the tube size. The two 1 in locations use the same assembly. Tighten until snug. Check that the cap is secure. Medium-strength threadlocking adhesive is optional.

T01 Generic tube-cap assemblies. Use matching components for the tube size.

Retaining screw: 1/4-28. Tighten until snug and check that the cap is securely retained. Medium-strength threadlocking adhesive is optional; if used, follow its preparation and cure instructions. Retain the specified matching cap, inner plug and O-ring. Do not overtighten or use a tube cap as a lifting point.

18 Cleaning and storage

Use mild soap, water and a soft cloth; wipe clean and dry fully. Avoid salt water, bleach, chloride cleaners and harsh solvents. Do not immerse bearings, hinges or clamped joints. Inspect the frame and grip surfaces. Abrasives are permitted only for brushed titanium as described below.

Area	Care instructions
Titanium frame and trim	Wipe with mild soapy water; remove soap residue with a damp cloth and dry.
Fabric sling and back support	Clean with mild soap and water as directed for the fitted material. Fabric, foam and upholstery must dry completely before use. Do not sit against damp support material; confirm secure attachments after drying.
Carbon-fiber panels and foot support	Use a soft damp cloth and mild soap. Avoid abrasive cleaners; inspect edges and attachment points.
Axles, bearings and hinges	Remove visible dirt without soaking. Bearing or joint disassembly and lubrication are service tasks.
Labels and decal	Wipe gently and dry. Avoid abrasion or chemicals that damage the print or adhesive; replace unreadable labels.
Storage and temperature	Store indoors in a dry place away from open flame, heaters and prolonged direct sunlight. Do not expose the chair to freezing storage conditions or excessive heat. Metal, carbon and upholstery surfaces can become hot in sunlight and may burn skin. Let them return to a safe contact temperature before use. After wet or dirty exposure, clean, dry and inspect the chair.

Brushed titanium finish

On exposed, uncoated titanium with a brushed finish, use a suitable nonwoven Scotch-Brite™ hand pad to refresh the grain and blend light cosmetic marks. Match the original finishing pad; ask HOC if unsure. Apply light pressure along the grain, then wipe away residue with a damp cloth and dry.

Keep the pad away from labels, logos, serial markings, carbon fiber, upholstery, threads and joint contact surfaces. Never use steel wool or powered abrasives. This is cosmetic care, not permission to reshape tubing or repair damage.

Cerakote® coated painted and polished finishes

Clean with a soft cloth, mild soap and water; wipe clean and dry. Never use Scotch-Brite™ pads, steel wool, abrasive cleaners or abrasive polish on Cerakote®-coated, painted or polished parts. They can remove or damage the finish. Protect these areas when brushing nearby uncoated titanium.

⚠ WARNING Cracks, deep gouges, bent tubes, damaged welds, sharp edges and harmful burrs require HOC or a qualified provider's inspection. Stop use. Do not buff away or conceal damage to return the chair to service.

Before returning to use

Refit any parts that were removed using their approved instructions. Check rear-wheel retention, wheel locks, backrest locking and support attachments before use.

If water or soap enters an anti-seized joint, have a qualified service person disassemble, clean, inspect and dry the joint, then reapply the specified anti-seize and reassemble to its approved setting. Do not add compound blindly to an assembled joint.

Reuse recycling and disposal

Before a different person uses the chair, have a qualified provider inspect and clean it and assess its fit, support, configuration and stability for that person. Each chair is built to an individual specification and may be unsuitable for another user. Do not pass on a damaged chair for use.

At the end of its useful life, contact your local waste or recycling service, or ask your provider about available disposal arrangements. Rules and accepted materials vary by location. Have the parts separated safely; do not cut, burn or grind carbon-fiber panels for disposal.

Material	HOC parts or examples	Disposal guidance
Titanium	Frame, axles, and clothing-guard trim	Ask a metal recycler to accept the separated titanium parts.
Stainless steel	Fasteners	Separate from other materials where practical; use an accepting metal recycler.
Aluminum	Reinforcing strips inside the bolt-on seat sling, some machined components	Separate from the fabric for an accepting metal recycler.
Carbon-fiber composite	Footplate, fenders, seatpan and clothing-guard panels	Ask for a composite disposal or recycling route. Do not place these in ordinary metal recycling.
Fabric, rubber and plastics	Seat/back upholstery, tires, upholstery back post tube caps, and other fitted soft or molded parts	Check local collection rules; mixed materials may require general waste disposal.
Purchased wheel and brake parts	Wheels, pushrims, forks, axles and wheel locks	Identify their materials from the component supplier before sorting.
Packaging	Cardboard and protective packaging, as supplied	Separate clean recyclable packaging under local rules.

19 Troubleshooting

Use this table to decide what to check and when to ask for service. It does not authorize disassembly or replace the service instructions for a component.

Problem	Action
Rear wheel will not stay attached	Stop use. Check the normal refitting procedure in section 5. If it still will not retain, contact HOC or your provider.
Wheel lock slips or rubs	Stop use until corrected. Check the fitted tire pressure and ask your provider to check clamp position and clearances.
Backrest will not lock	Stop use. Keep the chair unoccupied and have both latches, back posts and attachment hardware checked.
Footrest moves unexpectedly	Stop use until the clamp, wedge and attachment are checked and secured.
Chair pulls, a wheel binds or caster flutter persists	Check tire condition/pressure and visible debris. Have wheel alignment, bearings and attachments checked if the problem remains.
Sling, support or guard is loose or damaged	Stop use and arrange repair or replacement. Do not use the damaged part as a support or handle.
Pushrim loose or rim insert turning	Stop use and have the screw, tab and rivet nut repaired by HOC or your provider.
Frame crack, bend, damaged weld or sharp burr	Stop use and contact HOC or your provider. Do not use damaged grip surfaces. Do not grind, heat, weld, bend or file the frame as a field repair.
Label missing or unreadable	Contact HOC or your provider for the correct replacement label.

Unusual noise or increasing effort: check for visible debris and loose attachments without dismantling parts. If the cause is unclear or the problem remains, stop use and arrange service. Repeated tire pressure loss requires tire/tube service; do not simply reposition a wheel lock.

20 Serial badge

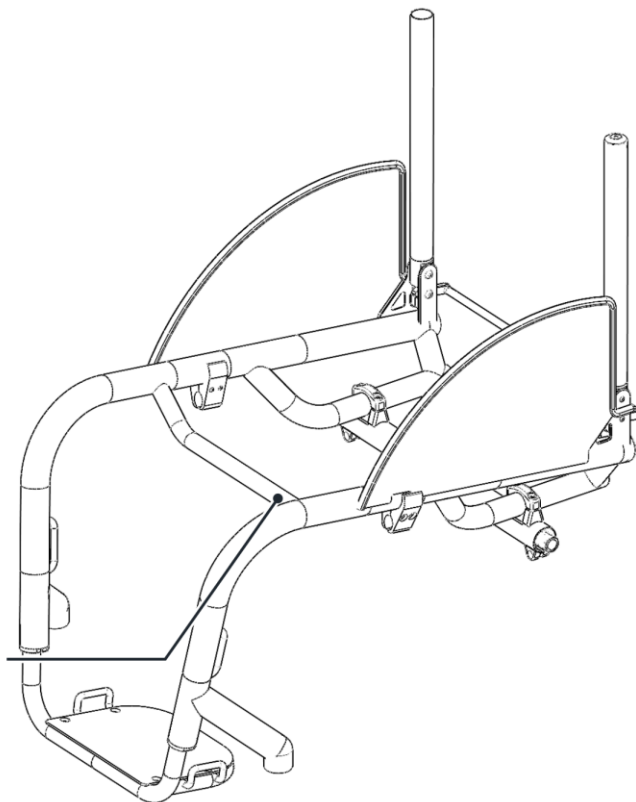
Serial badge

Flat artwork shown enlarged

Badge layout shown; identifiers vary.

	MADE IN USA WWW.TEAMHOC.COM 
MODEL:	HOC OPEN FRAME
SERIAL:	Serial Number
MAX LOAD:	110 kg / 242.5 lb
INCLUDES USER AND CARRIED ITEMS	
MFG:	YYYY-MM-DD
HANDS ON CONCEPTS 3 INC. +1 619 396 5925 1330 LA CRESTA BLVD, EL CAJON, CA 92021, USA	
UDI BARCODE (01) 00884400253958 (11) YYMMDD (21) Serial Number	

Location on the fixed crossbar
beneath the seat



Wheels and upholstery omitted to show the badge location.

O03a Serial badge on the fixed crossbar beneath the seat. Wheels and upholstery are omitted to show the location.

Use the individual serial number for service, replacement parts and the chair's service history. Keep the badge and warnings readable. Contact HOC or your provider if a label is damaged or missing.

Serial badge information

Model identifies the wheelchair model.

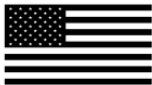
Serial number identifies your individual chair. Give this number when requesting parts or service.

Maximum load is 110 kg (242.5 lb), including the user and carried items.

Manufacturing date identifies when the chair was made.

The UDI barcode identifies the device. The HOC Open Frame GTIN is 884400253958, shown in the barcode as (01) 00884400253958. In the GS1 format, (01) identifies the GTIN or UDI-DI, (11) identifies the manufacturing date as YYMMDD, and (21) identifies the chair serial number. The readable information appears directly beneath the barcode.

Manufacturer gives Hands on Concepts 3 Inc. and its contact details.

	MADE IN USA WWW.TEAMHOC.COM	
MODEL:	HOC OPEN FRAME	
SERIAL:	Serial Number	
MAX LOAD:	110 kg / 242.5 lb	
	INCLUDES USER AND CARRIED ITEMS	
MFG:	YYYY-MM-DD	
HANDS ON CONCEPTS 3 INC. +1 619 396 5925		
1330 LA CRESTA BLVD, EL CAJON, CA 92021, USA		
UDI BARCODE		
(01) 00884400253958 (11) YYMMDD (21) Serial Number		

O03b Badge layout. Serial number, manufacturing date and UDI vary between chairs.

The empty chair's mass is not part of the maximum load. Keep the badge readable and do not alter its information.

21 Warning labels

Vehicle transport warning

⚠ WARNING — DO NOT USE AS AN OCCUPIED SEAT IN A MOTOR VEHICLE. This wheelchair is not designed to comply with ISO 7176-19, ANSI/RESNA WC19 or AS/NZS 3696.19 for occupied vehicle transport. Transfer to a vehicle seat and use its occupant restraints.

Moving parts

Wheel-lock linkages and backrest hinges can trap fingers. Keep hands clear of moving parts. Operate each wheel lock from its outer grip and lift the backrest release bar at its center.

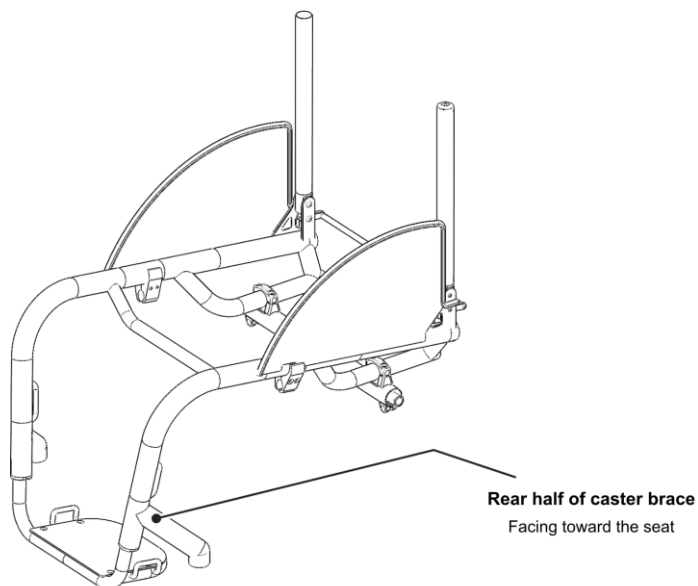


V02 Vehicle transport warning.

Do not use this wheelchair as an occupied seat in a motor vehicle. Transfer to a vehicle seat and use its restraints. An unoccupied-chair hold-down bracket or tie-down loop does not make the chair suitable for occupied transport.

Vehicle warning location

Vehicle warning location



Keep this label readable. Contact HOC or your dealer if it is missing or damaged.

V01 Warning label on the rear half of the caster brace, facing toward the seat. Wheels and upholstery are omitted for clarity. Keep the label readable; contact HOC or your dealer if it is missing or damaged.

22 Specifications and service settings

Frame dimensions and permitted adjustment travel vary with the chair's configuration. An orderable size is not necessarily adjustable after manufacture. Use only the settings and compatible components specified for your chair.

Specification	Value
Maximum load	110 kg (242.5 lb), including the user and carried items
Maximum slope	10% grade, approximately 5.7°. Your ability and surface conditions may require a lower limit.
Footrest clearance	At least 40 mm above level ground; maintain full caster clearance.
Footrest tube insertion	At least 30 mm in each height-adjustment clamp.
Footrest travel	Configuration dependent, from no adjustment to a maximum of 6 in (152 mm). The clearance and insertion limits always apply.
Center of gravity setting	1–6 in (25.4–152.4 mm), configuration dependent, measured from the front of the back-post tubes. Clamps must remain fully on the straight horizontal tubes, clear of the bends.
Backrest locking	The mechanism in section 9 locks upright only. It does not lock folded.

Hardware identification

Location	Stainless hardware	Tool and compound
Wheel-lock clamp	Two M6 × 1 socket-head screws per clamp; match original length.	5 mm hex; medium-strength threadlocking adhesive.
Center of gravity clamp	Two M6 × 1 × 22–23 mm socket-head screws per clamp.	5 mm hex; nickel anti-seize on threads.
Camber tube bung	M6 × 1 × 16 mm socket-head screw.	5 mm hex; nickel anti-seize on threads.
Footrest wedge	M5 × 0.8 × 36 mm minimum.	4 mm hex; nickel anti-seize on threads and wedge-to-clamp face.
Footplate	Four M6 × 1 countersunk screws, approximately 18 mm long.	4 mm hex; medium-strength threadlocking adhesive.
Seat sling and backrest	Standard 10-32 button-head screw, approximately 14.5 mm overall, including the head.	1/8 in hex for standard button heads. Use the compound specified for the joint.
Clothing guards	M4 × 0.7 countersunk screw matching the panel and saddle stack.	2.5 mm hex for standard socket flat heads; high-strength threadlocking adhesive.
Pushrim and open-top grommet	10-32 threads. HOC: approximately 14.5 mm overall. Phillips pushrim: approximately 15.85 mm overall (about 5/8 in). Both include the head.	Medium-strength adhesive on HOC pushrim and grommet screws; follow section 15 for Phillips screws.
Tube caps	1/4-28 flat-head retaining screw.	Tighten until snug and check retention; medium-strength adhesive optional.

Handling weights

The frame assembly is the heaviest piece handled when the chair is dismantled for transport. Each chair is built to order, so its weight depends on its dimensions and configuration. Transfer weight means the frame assembly with all components left attached after removing the rear wheels and other items removed for that lift. The bare frame and the frame assembly are different measurements.

Weight category	Configuration range
Bare frame	2.9–9 lb (1.32–4.08 kg), depending on configuration. This excludes the rest of the assembled chair.
Frame assembly / transfer weight	9–35 lb (4.1–15.9 kg), depending on configuration. This is the heaviest handling piece and includes all components left attached for the lift.

Before lifting, use section 16’s fixed-frame grips, assess your ability and obtain assistance when needed. Remove wheels using section 5. Wheel locks are parking devices; once the wheels are removed, support the remaining chair securely.

Attached seating, foot supports, casters, guards, handles, anti-tips, carriers, mounts and their contents all add to the weight you lift. Remove loose contents and detachable equipment according to their instructions when appropriate. The 110 kg maximum load still includes the user and carried items.

23 Contact and warranty

Contact Hands on Concepts

Hands on Concepts 3 Inc.
1330 La Cresta Blvd
El Cajon, CA 92021, USA
Phone: +1 (619) 396-5925
Email: info@teamhoc.com
Website: www.teamhoc.com

When contacting HOC, provide the chair model and serial number, the affected part and a description of the problem. Include a clear photo if it helps identify the part.

Manual updates and local support

Manuals: www.teamhoc.com/manuals
Current dealers: www.teamhoc.com/dealers
Dealer listings may change without notice; check the current list when arranging support.

Australian service and support

For Australian service, repairs or help with a warranty claim, contact Push Mobility.

Phone: 1300 721 328 | Email: info@pushmobility.com.au

Adelaide: 60 Marryatt Street, Port Adelaide SA 5015
Melbourne: 316 Hoddle Street, Abbotsford VIC 3067
Sunshine Coast: 4/25 Service Street, Maroochydore QLD 4558

www.pushmobility.com.au/pages/contact-us

Use Push Mobility's website for the most accurate and up-to-date contact details, locations and opening hours.

Warranty

Your written warranty is supplied with the chair. Its terms apply together with your legal consumer rights. Current HOC terms are available at www.teamhoc.com/warranty

Records supplied with the chair

Your wheelchair is built to the dimensions and selected options on its specification/sign-off sheet, approved by you or your dealer before payment. Keep that sheet and the delivery/setup record with this manual and the instructions for your fitted components. Owners fitting their own rear wheels must complete the compatibility and retention checks in sections 5 and 6. Record later servicing in Appendix A.

Cerakote® is a registered trademark of NIC Industries, Inc. Scotch-Brite™ is a trademark of 3M Company.

Warranty

The HOC limited warranty covers the original retail purchaser. Covered original-frame workmanship is warranted for the frame's reasonable useful life. Other HOC components and the initial HOC finish application have one year of coverage, subject to the full warranty terms and any longer rights required by law. The warranty supplied at sale governs your purchase.

To make a claim, contact HOC with the chair's serial number, purchase and delivery information, a description of the problem and any relevant service record. Obtain instructions before shipping the chair or arranging repairs. HOC pays authorized covered parts and labor as required by the warranty or applicable law. Ask HOC to confirm shipping, local-service and reimbursement arrangements for the claim before incurring costs.

Full warranty terms: www.teamhoc.com/warranty

Your consumer rights

Nothing in HOC's voluntary warranty removes a consumer right or remedy that applicable law does not allow a business to exclude. An original-purchaser condition or service-record request does not remove rights that apply independently of that warranty.

Australia

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Appendix A Service history

Identify each service record by the chair's model and serial number. The delivery sign-off sheet records initial setup. Later inspections, adjustments, repairs and replacements form the service history. Submit these records to HOC or the servicing dealer and keep a copy with the chair.

Sending a service record

Send the completed record to Hands on Concepts or the dealer who handled the service. Include the date, work, replacement parts, changed settings, checks, service provider and next action. Keep a copy with the owner's chair records so the history can be handed over with the chair.

Use the HOC contact details in section 23 or find your dealer at www.teamhoc.com/dealers

Minimum entry for each service

Field	What to enter
Chair	Model and serial number
Date and reason	Service date; routine inspection, repair or reported fault
Work performed	What was inspected, adjusted, repaired or replaced
Parts and settings	Replacement part IDs; changed settings; approved torques and compounds used where relevant
Result	Checks completed; remaining faults; ready for use or held out of service
Responsibility	Person and business performing the work; contact details
Next action	Next inspection date or interval; owner instructions

Keep a copy of each entry with the chair. Add corrections without removing the original record so future owners and service providers can follow its history.

Service record

Use one record per service visit. Include the chair's serial number on every entry.

Record field	Entry
Model and serial number	
Service date and reason	
Work and inspections completed	
Parts replaced and settings changed	
Checks and return to use decision	
Technician and service business	
Next service date or interval	

Provide a copy to the owner and send the record to HOC or the servicing dealer. Record unresolved defects clearly. Do not return the chair to use until the required checks pass.

Appendix B Fasteners and compounds

Where compounds are used

Joint or surface	Compound and application	Service precaution
Center of gravity and camber clamp screws	Light coating of LOCTITE® LB 771™ nickel anti-seize or HOC-approved equivalent on screw threads.	Keep tube-gripping surfaces clean and free of compound.
Footrest wedge screw and mating face	Nickel anti-seize on screw threads and wedge-to-clamp face.	Use the specified screw length and preserve minimum tube insertion.
Wheel-lock clamps, seat sling and footplate	LOCTITE® 243 or equivalent medium-strength threadlocking adhesive.	Keep adhesive off fabric, tire contact surfaces and clamping surfaces.
HOC hex-socket pushrim and open-top grommet screws	Medium-strength threadlocking adhesive.	Follow the separate component instructions for Phillips pushrim screws.
Clothing-guard screws	LOCTITE® 263 or equivalent high-strength threadlocking adhesive.	Professional service joint; protect the carbon panel and welded mount during removal.
Caster housing assembly	High strength on the top screw; medium strength on housing-to-insert threads and the bottom screw.	Use the preparation, cure and service instructions in section 6.
Tube-cap retaining screw	Medium-strength threadlocking adhesive is optional.	Tighten until snug and check cap retention.

Do not apply threadlocker and anti-seize together unless HOC establishes a specific compatible process. Keep compounds off tire contact surfaces, friction brakes and fabric. Use the product instructions for cleaning, application and curing.

Tightening precautions

Use the HOC tightening setting for the exact screw, receiving thread, joint and compound. Do not substitute a general bolt torque chart or use a dry setting on a lubricated joint. Stainless steel alone does not identify a screw's strength class. Contact HOC before proceeding if the joint setting or correct replacement hardware is unavailable.

Thread condition, wear, corrosion, contamination, previous adhesive residue and engagement in both male and female threads affect tightening. Threadlocker formulation, shelf life, storage, age and condition, application, cure time and temperature also matter. Check the product data and the actual parts; replace damaged parts and unsuitable or expired adhesive. Do not raise the torque to compensate for a slipping clamp, worn thread or uncured adhesive.

Use a calibrated torque tool where a torque is specified. Threadlocker removal torque is not an installation setting. After service, allow the specified cure, complete the relevant retention and function checks, and repeat the pre-use checks before returning the chair to use.

Specified nickel anti-seize

Use LOCTITE® LB 771™ nickel anti-seize, or an HOC-approved equivalent, at the locations listed above. Follow the product's preparation, application and safe-handling instructions. Apply a light coating and remove excess. Keep it off tire contact surfaces and fabric, and do not use it as a bearing lubricant.

Any equivalent must suit the joint materials and the HOC tightening process. Do not change the compound while retaining a setting that has not been established for it. LOCTITE® is a registered trademark of Henkel and/or its affiliates; 243™, 263™ and LB 771™ are Henkel trademarks.

Appendix C Illustrated assemblies

Figure	Assembly	Manual section
C01	Caster dome housing and threaded insert	6
L03a	Wheel-lock clamp	8
B03	Locking folding backrest hinge	9
F02	Footrest height adjuster and wedge	10
F03	Footplate, fixed rivet nuts and soft strips	10
S03	Carbon seat pan and ten 10-32 screws	11
S04c	Clothing-guard tab, panel, saddle and screw	12
J03	Camber tube, welded bungs, plug and receiver	13
J04	Center of gravity tube, spacer and clamps	14
T01	1 in and 1¼ in tube caps	17