



Functional Postural Support -
Children Through to Adults

User Manual

- Chunc One
- Adapt
- Spica
- Hilo



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It is recommended you do not remove your Chunc wheelchair from the box or assemble it without a Chunc representative, your distributor/dealer or a trained healthcare professional in attendance.

Take care when unpacking your Chunc wheelchair and ask somebody to assist you with the heavier parts.

Check all ordered parts are present, in working order and are free from damage. In the unlikely event you find a fault, contact your supplier immediately.

< before use

- > Before transferring the user, an inspection should be made of the product, ensuring all required parts are secured and in good working order.
- > Special attention should be paid to the grey hand tightened components and particularly the backrest collet caps and the caution label at the base of the backrest.
- > Ensure the wheelchair rolls freely, without excessive noise or vibration; if you are uncertain of the wheelchair's performance, it should not be used and your Chunc representative should be contacted as soon as possible.

< Intended use including transportation

The Chunc One is a manual attendant controlled wheelchair. The Chunc Adapt is a manual attendant controlled wheel base for use with a surrogate seating system. A range of accessories is available which are intended to provide additional mobility, postural management and adjustable seating solutions.

All Chunc One wheelchairs are intended for a single occupant with moderate to specialist needs such as cerebral palsy and whose mass does not exceed 110kg /242lb. The maximum load capacity (including an occupant up to 110kg) and any auxiliary equipment (such as communication and respiratory aids) and, if applicable, surrogate seating for the Adapt, should not exceed 110kg/242lb. The wheelchairs are designed for indoor and outdoor use; however they are not intended for use on rough terrain.

All Chunc wheelchairs are suitable for use as a forward facing seat in a motor vehicle when used in conjunction with 4 point tie down restraints (WTORS); see section "Safe Transportation in a motor vehicle" or QLK type.

< getting started

< postural management

Chunc wheelchairs are Class 1 medical devices and must not be used to seat any person without prior consultation of a qualified health care professional. A qualified health care professional should be present when fitting or adjusting the Chunc wheelchair and accessories to an occupant.

The occupant's seating posture and the positioning of adjustable parts and accessories should be monitored closely and adjusted as directed by a healthcare professional in accordance with the instructions in this manual. Ensure harnesses are fitted to the manufacturer's instructions and their adjustment monitored closely. Any adjustments should be as directed by a health care professional and in accordance with the manufacturer's instructions.

Failure to comply with these washing instructions may result in the reduction of performance of your product. Over a prolonged period this could constitute a safety hazard.

< lifting

A minimum of two people should only attempt this operation. Ensure the handle grips are as high as possible and tightened, resting against the fixed end caps. If the Chair and occupant need to be lifted, lift using the front tie down points and the rear handle grips. Do not lift the wheelchair with the footrests.

< stability

Consider the stability of the wheelchair and occupant at all times, especially when on slopes and uneven ground. Movement of the user and the occupant's body position can affect stability. Keep the user in a seated position whenever possible, with their back firmly against the backrest.

Do not place bags or any other unauthorised equipment on the framework. Ensure the anti-tip levers are engaged at all times where practical. When placing an occupant in a fully reclined position consider their body position's affect on stability.

< for your safety

At Chunc, safety is paramount in the product's design, development and manufacture. Misuse and adverse environments can lead to potentially hazardous situations that could result in injury or even death. It is therefore essential this manual is read prior to performing maintenance on a Chunc wheelbase/wheelchair and kept for reference. At Chunc we also believe in continuous improvement. If you have any questions or comments about our customer service, product literature or products we would be pleased to receive them. This manual can be downloaded from www.chunc.com

Chunc wheelchairs and accessories are of modular design and can be maintained using basic tooling as detailed in section 'Tools'. If a fault has been identified and is beyond repair by adjusting the fitting, the part or parts must be replaced to maintain the product warranty. The fitting or modification of any Chunc component, whether repair, adjustment or maintenance must be carried out by Chunc approved engineers, health care professionals or appointed NHS repairers. Failure to comply with these instructions may invalidate the warranty and endanger the occupant and attendant. If at any time you suspect a fault or any of the equipment is damaged or behaves erratically or you are uncertain of the wheelchair's performance it should not be used until it has been checked by your Chunc Representative or appointed NHS repairer.

< maintenance

Your Chunc product requires periodic maintenance in order for it to function correctly and safely. Before transferring the user, an inspection should be made of the wheelchair, ensuring all required parts are fixed securely in position, and in good working order.

< occupant safety

Never leave an occupied Chunc wheelchair unattended. Never exceed the wheelchair's occupant weight limit, or maximum load capacity, or use for any purpose outside the manufacturers instructions

< important information

< **finger traps**

Be careful when operating the wheelchair, remaining aware of finger traps around moving parts, when removing and replacing parts or making adjustments. Take extra care when operating the grey locking collet cap of the backrest and armrests. Observe the potential finger trap for both the occupant and operator between the rear wheel and chassis plates. It is possible to purchase a wheel guard from your supplier.

< **cleaning**

All Chunc upholstered parts must be cleaned following the care label stitched into the cover. They can be cleaned using water and commercially available fabric washing detergents and non-toxic soap (neutral soap). The padding inside the upholstery should not be cleaned with any liquid; only lightly brush to refresh the surface. Always ensure all mating Velcro parts are pressed together prior to washing. Exposed hooked Velcro can cause damage to items in a wash cycle.

The armrests are covered with closed cell foam. They can be wiped clean using a damp cloth. We do not recommend the use of detergents on these parts.

The wheelchair frame is constructed from high quality engineering materials including powder-coated steel, nylon composite moldings and stainless steel fasteners. It can be cleaned using water and commercially available household detergents and non-toxic soap (neutral soap). Before cleaning the wheelchair, all upholstery, including the armrests should be removed. It may be necessary to use a brush or cloth to remove embedded dirt or remove deposits from sheltered areas. Do not pressure wash.

< **extended life re-use / recycling / disposal**

Your product is designed and manufactured with high quality materials and components, which can be recycled and reused. When the wheelchair's life can be prolonged no further, it can be easily dismantled into its respective material groups. Approximately 90% of the wheel-chair by weight is recyclable. Consider the environment when disposing of your old product. Ensure it is recycled where applicable by giving it to a recycling organisation at the end of its life.

< **important information**

< 1. wheel locks

They are designed to prevent a stationary wheelchair from rolling and should NEVER be used as brakes to slow a moving chair. The wheel locks can be foot engaged, by lifting the levers (C) to a stop. The locks are disengaged by pressing down on the levers (C) until they hit a stop.

Safety note: Before disengaging the wheel locks, ensure the wheelchair is under control. Always apply wheel locks when the chair is stationary. The wheel locks are less effective on worn tyres.

< 2. tip assist

The wheelchair can be tipped onto just its rear wheels, allowing it to traverse steps and curbs. To perform this, press down on the wheel lock lever (C). Using the handlebars, rotate the wheelchair about the rear wheel to lift the castors. Ensure you have full control of your chair when you perform this operation.

< 3. anti tip levers

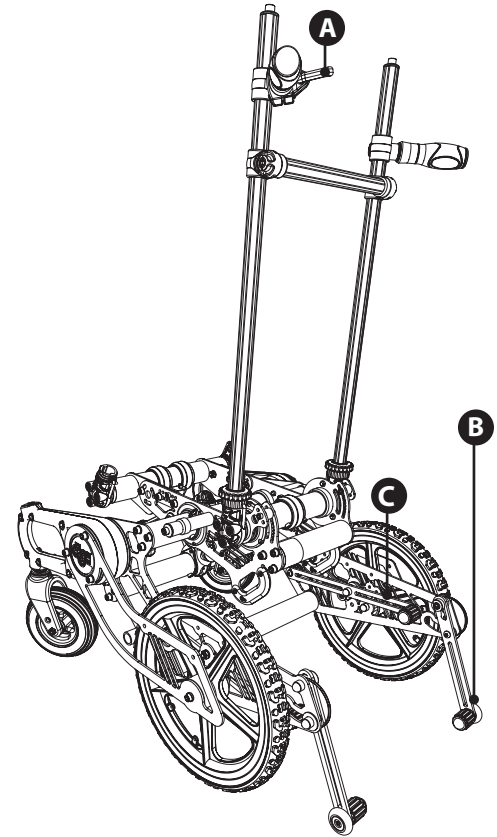
These are designed to reduce the possibility of a tip. To increase wheelchair stability, move the anti-tip levers (B) to their rearmost position. To disengage, push the levers (B) to their foremost position. Both anti-tip levers should be used together to avoid potential instability.

< 4. tilt in space

The angle of the chair can be adjusted by compressing the tilt lever (A) and using the handlebars to adjust the seat's angle. It is advised that the wheel locks are engaged during this operation. The wheelchair may be less stable when tilted.

< 5. swing away footrests

To swing under, pull the lower handle of the grey snap clip towards the front of the chair. The bar it grips will be released, and the foot rests can swing away under the chair. To re-secure, bring the footrest's central bar to the clip, and push together firmly until they click into place. Beware of the potential finger trap between the snap clip and the leg rest down tubes.



< everyday use

< 6. collet brackets

Armrests, the backrest and certain accessories can be removed with ease using the grey collet caps (D). To free these components, unscrew the grey cap which allows them to be drawn away from the wheelchair. To replace these components, insert the metal pole into the bracket, locating the bolt head into the collect groove. Finally, screw the grey cap down onto the bracket until it is fully secured.

It is important that the components are checked before use to ensure they are fixed securely in position. A caution label has been provided to remind attendants of this procedure, and is located at the base of the backrest. Take care when performing this task, as there is a potential finger trap between the grey cap and the locking lever.

< 7. compacting for transport / storage (foldable versions only)

To transport or store, remove the backrest, both armrests and swing the footrest under the chair. A minimum of two people should only attempt to lift the main assembly. Always apply the wheel locks to prevent the chair from rolling. When an unoccupied wheelchair is transported in a vehicle, ensure all of its components are securely fixed in position. This reduces the risk of damage to the chair, and prevents it from becoming a hazard in the event of an accident.

< 8. seat pan removal:

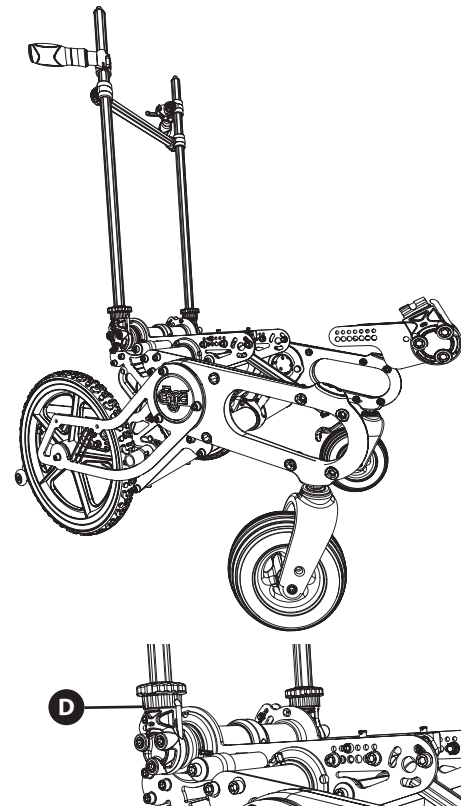
Once the seat cushion has been removed, it is possible to remove the seat pan for cleaning etc. By pulling the front of the seat pan upwards, it will release from the wheelchair. To replace the seat pan, align its holes with the orange seat pan brackets and press down to snap into place.

< 9. height adjustable handle bars

To adjust, twist the grip (E) in an anti clockwise direction until the bracket slackens, allowing the handlebar to slide up and down the backrest poles. To fix in position, twist the hand- grip in a clockwise direction. Check the handgrips are fully secured before manoeuvring the wheelchair.

< 10. upholstered parts

To remove, unzip or unhook Velcro fasteners and peel away from inner core. Make note of orientation of cover and foam when re-attaching cover. For washing instructions, refer to care label attached to cover and / or "Cleaning" section. The upholstered parts meet the European and U.S. standards for resistance to flammability. However extreme care should always be exercised near open flames or with burning cigarettes.



< everyday use

< user transfer

To safely transfer the user to and from the wheelchair, first engage the wheel locks and anti-tip levers. The tilt in space adjustment should be set to a suitable angle and the front castors rotated as far forward as possible. One or both armrests can then be removed as required and the foot rests swung away (if possible). It is suggested standing transfers should only be performed when the tilt in space is adjusted to its foremost setting. When transferring with a sling, the tilt in space should be adjusted to a reclined angle. When all transfers are complete, the armrests and footrests should be replaced to their original position (if applicable). Safety note: It is important to check all remaining attendant-adjustable components are secure before the user is transferred to the chair, and to check after the transfer that the items removed are securely replaced.

< ramps steep terrain

The wheelchair will become less stable when on a slope. Travel directly up / down the slope where possible, avoiding exposing the chair to a sideways tilt. Before ascending ramps or steep terrain, apply the anti-tip levers. The tilt in space angle may also be adjusted to improve stability. When descending, adjust the tilt in space to a suitable angle.

< steps

Before attempting to ascend or descend steps, ensure the anti-tip levers and wheel locks are deactivated and all hand-tightened components are fully secured; in particular the backrest collet brackets and handgrips. When pulling up stairs, reverse the chair into position so the rear wheels are in contact with the 1st step. Tip the chair on its rear wheels and pull up and over the step(s). A second person must stand below the chair, holding it through the chassis mouldings, supporting it as it travels up. When descending stairs, approach the step front on, and pivot the chair on its rear wheels using the tip levers. Push up to the step edge and gently roll the wheels down, maintaining contact with the surface at all times. A second individual should stand below the chair supporting the chair.

< curbs

Before attempting to ascend or descend a curb, ensure the anti-tip levers and wheel locks are disengaged. To ascend, approach the curb front on, tip the wheelchair on its rear wheels, and push the castors onto the top of the curb. The wheelchair can then be pushed up the curb. To descend, position the wheelchair with its front castors close to the edge of the curb and tip the chair on its rear wheels using the tip levers. The chair can then be rolled over and down the curb on its rear wheels. Only when the curb has been cleared should the front castors be lowered to the ground.



Before attempting any of these operations consider stability carefully, as well as the safety of both the operator(s) and occupant. If you are unsure or believe the operation will compromise stability, you should not attempt the operation.

< transfer to vehicle seat

Wheelchair occupants should transfer to vehicle seats wherever possible. An occupied wheelchair should be adequately secured within a motor vehicle with the wheel locks on. Chunc wheelchairs should not be carried behind a folding seat, such as the rear seat of a car, unless it is restrained by luggage straps. The wheelchair can be compacted for storage as described in the every day use section of this manual.

< appropriately tie-down and forward facing

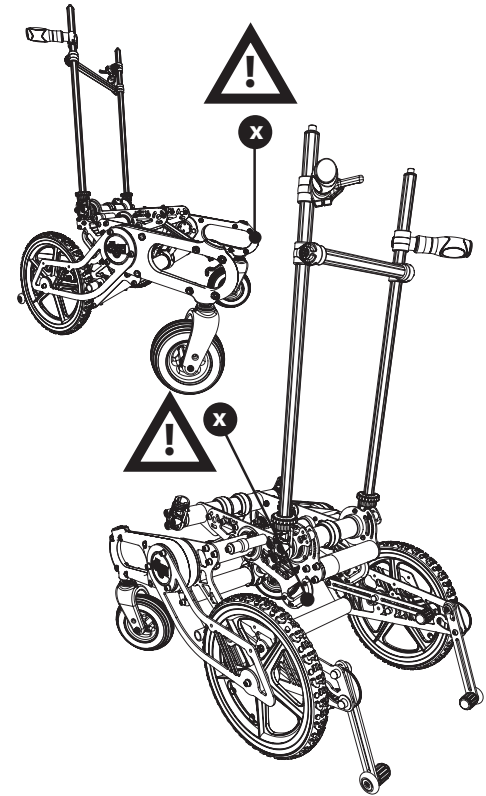
The Chunc One can be used as a forward facing seat in a suitably adapted motor vehicle and should be used in conjunction with a 4 point, tie down system with integrated lap belt and vehicle mounted shoulder belt. The Chunc One Adapt Wheelbase with drop hook interface can also be used in the same manner, however you should first check the suitability of the surrogate seating system with your provider.

< tie-down points

The Chunc One wheelchairs and Adapt wheelbase are equipped with 4 tie down points. The front tie down points (X) can be found within both front chassis mouldings. The rear tie downs (X) can be located on the back of the upper frame plate. A strap style fitting is recommended for use on the front tie down and a karabiner fitting is recommended for the rear tie down. The tie down belt should have a clear path from the wheelchair to the rail anchor point and should not be interfered with by any part of the vehicle, wheelchair, seating or accessory. If you spot any visible damage to any of the tie down areas, do not transport a Chunc wheelchair in a motor vehicle without first contacting a Chunc representative.

< belt restraints

Postural supports and belts may be used in a moving vehicle in addition to the occupant belt restraint, but should not be relied upon to replace occupant restraints that have been designed for this purpose. Restraints should not be held away from the body by wheelchair components or parts such as the wheelchair armrests or wheels. Pelvic restraints should make full contact across the front of the body near the junction of the thigh and pelvis. Upper torso belts should fit over the shoulder. Belt restraints should be adjusted as snugly as possible but with enough slack so as not to interfere with the occupant's breathing or create isolated pressure. Belt webbing should not be worn twisted in a manner that significantly reduces the area of contact of the belt.



< safe transportation

< wheelchair configuration

Wheelchairs should have their wheel locks applied during vehicle movement. Postural supports and belts may be used in a moving vehicle in addition to the occupant belt restraint, but should not be relied upon to replace occupant restraints that have been designed for this purpose. Where possible, auxiliary wheelchair equipment should be secured to the wheelchair, or removed from the wheelchair and secured in the vehicle, during transit so it does not break free and cause injury to vehicle occupants in a crash. Safety note: Where possible, it is recommended that knee blocks are removed prior to transportation.

< the rear clear zone

There should be sufficient free space around the wheelchair and occupant to avoid them making contact with other vehicle occupants, unpadded parts of the vehicle, wheelchair accessories or WTORS anchor points. This is measured from the rear-most point on the occupant's head. The front clear zone is measured from the front-most point on the occupant's head. HHT is the estimated seat height from the wheelchair ground plane to the top of wheelchair-seated occupant's head. The HHT should range from about 120cm / 47" for a small female adult to about 155cm / 61" for a tall male adult. FCZ = 65cm / 26" with pelvic and upper torso belts = 95cm / 37" with only a pelvic belt. Safety note: It is strongly recommended that both pelvic and upper torso belts are used to achieve effective restraint and optimum protection in a crash situation. Wheelchairs should not block gangway and exits for other passengers in the vehicle.

< qualification

The Chunc One has been dynamically tested to ISO 7176 part 19 and in a forward-facing mode in conjunction with a 4 point tie down system with integrated lap belt and vehicle-mounted shoulder belt with a 76kg / 167lb. ATD (crash test dummy). This test replicates a 30mph head-on collision. The Chunc Adapt wheelbase was tested in combination with a drop hook rail interface and a 12kg / 28lb surrogate seating system. These Chunc wheelchairs are 'A' rated for application of user restraints for transport.

< alterations

Alterations or substitutions should not be made to the wheelchair securing points, or to structural and frame parts or components, without consulting the manufacturer.



A Chunc representative should be consulted in case of questions about using the wheelchair for seating in a motor vehicle. You should also refer to the MHRRA bulletin "Guidance on safe transportation of wheelchairs" MDA DB2001(03)

Chunc One Key Checks

Action Required		Inspection
1.	△ Handle Grips - Ensure grips are fixed in height and rubber sleeves secure	Daily
2.	△ Collet Locking Cap - Ensure all caps are tightened. The caps are fully tight when there is a 2-3 mm gap between the cap and the shoulder of the collet bracket.	Daily
3.	△ Brake Assembly - Ensure the brake lever moves freely into its operative and non - operative position. Ensure all bolts are tight. Please note : As the rear tyre wears, the brakes become less effective.	Daily
4.	△ Ensure all upholstered parts are dry, clean and free from creases. Ensure all body supports are tight and correctly positioned. Ensure all harnesses are untangled and correctly positioned.	Daily
5.	△ Castors - Ensure the castors rotate freely in every direction and remove any hair or dirt that has collected between the bearings and fork. Ensure grips are free from stones / debris. Ensure the castor is not bent and that all bolts are tightened securely.	Weekly
6.	△ Rear Wheels - Ensure the wheel rotates freely. Ensure grips are free from stones / debris. Do not use if the wheel is cracked, broken or bent.	Weekly
7.	△ Gas Strut - Ensure the gas strut compresses / decompresses. Ensure the gas strut is secured to both the upper pivot bracket 7A ensuring no gap at 7B and the lower gas strut release bracket 7C . A safety device is fitted to your Chunc wheelbase to prevent a rearward fall of the client in the unlikely event of a gas strut failure.	Weekly
8.	△ Anti Tips - Ensure the anti tip device moves freely from operative to non - operative positions. Where possible keep the anti tip in its operative (outward) position.	Weekly
9.	△ Inspect your wheelchair checking for damage or excessive wear. Check the security of all fasteners and fixings.	Monthly
10.	△ Inspect your wheelchair checking for damage or excessive wear. Check the security of all fasteners and fixings.	Monthly

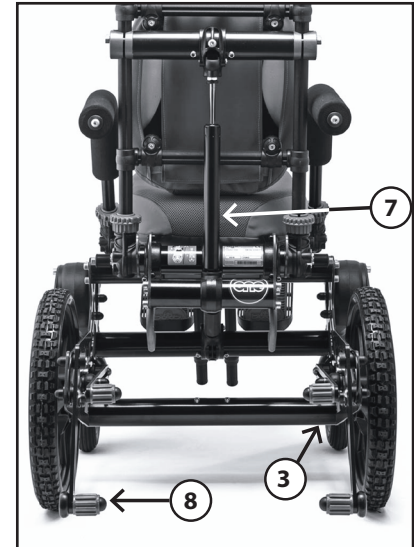
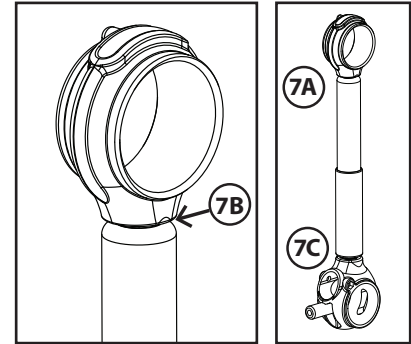
Basic Tools for Maintenance
4mm Hex/Allen Key
5mm Hex/Allen Key
6mm Hex/Allen Key
10mm Spanner
13mm Spanner
17mm, 10 Gauge Spanner
Philips Screwdriver
Loctite 248 or equivalent
Loctite 2701 or equivalent
Loctite 480 or equivalent
Copper grease
Silicon spray (food grade)
Torque wrench (optional) with hex sockets

Fitting/Adjusting Spare Parts

Always refer/quote date of manufacture and serial number when ordering spare parts.

Not all parts are available individually. See chunc spare parts list www.chunc.com.

Fasteners with thread lock are used in many cases. If these connections are opened ensure they are replaced with thread lock applied.



Chunc One

Chunc Adapt Key Checks

Action Required		Inspection
1.	△ Handle Grips - Ensure grips are fixed in height and rubber sleeves secure	Daily
2.	△ Collet Locking Cap - Ensure all caps are tightened. The caps are fully tight when there is a 2-3 mm gap between the cap and the shoulder of the collet bracket.	Daily
3.	△ Brake Assembly - Ensure the brake lever moves freely into its operative and non - operative position. Ensure all bolts are tight. Please note : As the rear tyre wears, the brakes become less effective.	Daily
4.	△ Ensure all body supports are tight and correctly positioned. Ensure all harnesses are untangled and correctly positioned.	Daily
5.	△ Castors - Ensure the castors rotate freely in every direction and remove any hair or dirt that has collected between the bearings and fork. Ensure grips are free from stones / debris. Ensure the castor is not bent and that all bolts are tightened securely.	Weekly
6.	△ Rear Wheels - Ensure the wheel rotates freely. Ensure grips are free from stones / debris. Do not use if the wheel is cracked, broken or bent.	Weekly
7.	△ Gas Strut - Ensure the gas strut compresses / decompresses. Ensure the gas strut is secured to both the upper pivot bracket 7A ensuring no gap at 7B and the lower gas strut release bracket 7C . A safety device is fitted to your Chunc wheelchair to prevent a rearward fall of the client in the unlikely event of a gas strut failure.	Weekly
8.	△ Anti Tips - Ensure the anti tip device moves freely from operative to non - operative positions. Where possible keep the anti tip in its operative (outward) position.	Weekly
9.	△ Inspect your wheelchair checking for damage or excessive wear. Check the security of all fasteners and fixings.	Monthly
10.	△ Inspect your wheelchair checking for damage or excessive wear. Check the security of all fasteners and fixings.	Monthly

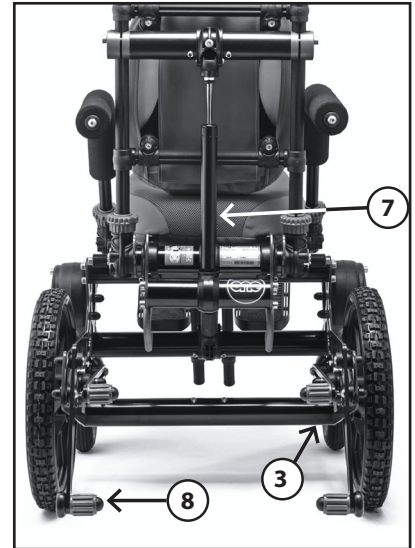
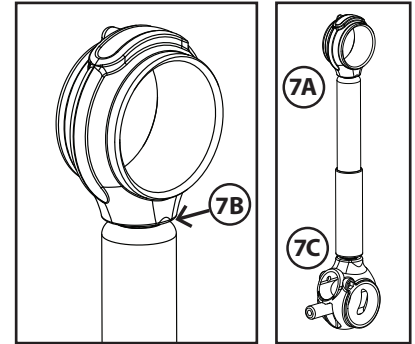
Basic Tools for Maintenance
4mm Hex/Allen Key
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6mm Hex/Allen Key
10mm Spanner
13mm Spanner
17mm, 10 Gauge Spanner
Philips Screwdriver
Loctite 248 or equivalent
Loctite 2701 or equivalent
Loctite 480 or equivalent
Copper grease
Silicon spray (food grade)
Torque wrench (optional) with hex sockets

Fitting/Adjusting Spare Parts

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Not all parts are available individually. See chunc spare parts list www.chunc.com.

Fasteners with thread lock are used in many cases. If these connections are opened ensure they are replaced with thread lock applied.



Chunc Adapt

Chunc Spica Key Checks

Action Required		Inspection
1.	△ Handle Grips - Ensure grips are fixed in height and rubber sleeves secure	Daily
2.	△ Collet Locking Cap - Ensure all caps are tightened. The caps are fully tight when there is a 2-3 mm gap between the cap and the shoulder of the collet bracket.	Daily
3.	△ Brake Assembly - Ensure the brake lever moves freely into its operative and non - operative position. Ensure all bolts are tight. Please note : As the rear tyre wears, the brakes become less effective.	Daily
4.	△ Ensure all upholstered parts are dry, clean and free from creases. Ensure all body supports are tight and correctly positioned. Ensure all harnesses are untangled and correctly positioned.	Daily
5.	△ Castors - Ensure the castors rotate freely in every direction and remove any hair or dirt that has collected between the bearings and fork. Ensure grips are free from stones / debris. Ensure the castor is not bent and that all bolts are tightened securely.	Weekly
6.	△ Rear Wheels - Ensure the wheel rotates freely. Ensure grips are free from stones / debris. Do not use if the wheel is cracked, broken or bent.	Weekly
7.	△ Gas Strut - Ensure the gas strut compresses / decompresses. Ensure the gas strut is secured to both the upper pivot bracket 7A ensuring no gap at 7B and the lower gas strut release bracket 7C . A safety device is fitted to your Chunc wheelbase to prevent a rearward fall of the client in the unlikely event of a gas strut failure.	Weekly
8.	△ Anti Tips - Ensure the anti tip device moves freely from operative to non - operative positions. Where possible keep the anti tip in its operative (outward) position.	Weekly
9.	△ Inspect your wheelchair checking for damage or excessive wear. Check the security of all fasteners and fixings.	Monthly
10.	△ Inspect your wheelchair checking for damage or excessive wear. Check the security of all fasteners and fixings.	Monthly

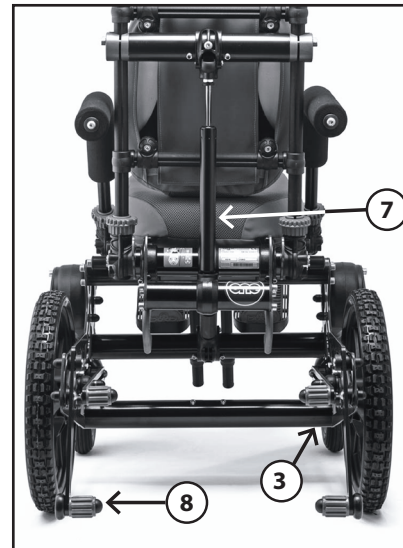
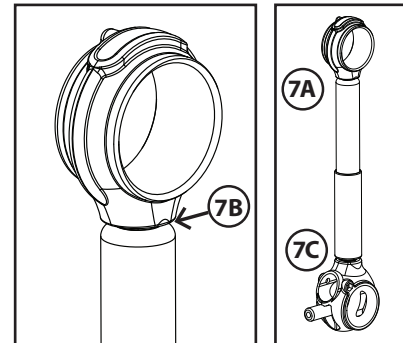
Basic Tools for Maintenance
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6mm Hex/Allen Key
10mm Spanner
13mm Spanner
17mm, 10 Gauge Spanner
Philips Screwdriver
Loctite 248 or equivalent
Loctite 2701 or equivalent
Loctite 480 or equivalent
Copper grease
Silicon spray (food grade)
Torque wrench (optional) with hex sockets

Fitting/Adjusting Spare Parts

Always refer/quote date of manufacture and serial number when ordering spare parts.

Not all parts are available individually. See chunc spare parts list www.chunc.com.

Fasteners with thread lock are used in many cases. If these connections are opened ensure they are replaced with thread lock applied.



Chunc Spica

Chunc HILO Key Checks

Action Required		Inspection
1.	△ Brake Assembly - Ensure the brake lever moves freely into its operative and non - operative position. Ensure all bolts are tight. Please note : As the rear tyre wears, the brakes become less effective.	Daily
2.	△ Castors - Ensure the castors rotate freely in every direction and remove any hair or dirt that has collected between the bearings and fork. Ensure grips are free from stones / debris. Ensure the castor is not bent and that all bolts are tightened securely.	Weekly
3.	△ Large rear wheel version rotates freely. Ensure grips are free from stones / debris. Do not use if the wheel is cracked, broken or bent.	Weekly
4.	△ Gas Strut - Ensure the gas strut compresses / decompresses. Ensure the gas strut is secured to both the upper pivot bracket 7A ensuring no gap at 7B and the lower gas strut release bracket 7C . A safety device is fitted to your Chunc wheelbase to prevent a rearward fall of the client in the unlikely event of a gas strut failure.	Weekly
5.	△ Inspect your wheelchair checking for damage or excessive wear. Check the security of all fasteners and fixings.	Monthly

Basic Tools for Maintenance
5mm Hex/Allen Key
6mm Hex/Allen Key
10mm Spanner
13mm Spanner
17mm, 10 Gauge Spanner
Philips Screwdriver
Loctite 248 or equivalent
Loctite 2701 or equivalent
Loctite 480 or equivalent
Silicone grease
Silicon spray (food grade)
Torque wrench (optional) with hex sockets

Fitting/Adjusting Spare Parts

Always refer/quote date of manufacture and serial number when ordering spare parts.

Not all parts are available individually. See chunc spare parts list www.chunc.com.

Fasteners with thread lock are used in many cases. If these connections are opened ensure they are replaced with thread lock applied.

Wheel locks & Directional Castors

They are designed to prevent a stationary wheelchair from rolling and should NEVER be used as brakes to slow a moving chair. The wheel locks can be foot engaged, by pushing down the levers to stop. The locks are disengaged by pressing up on the levers until they hit a stop.

Safety note: Before disengaging the wheel locks, ensure the mobility base is under control. Always apply wheel locks when the chair is stationary. Green castor is directional only and red castor is to apply brakes.

Tilt in space

The “tilt in space” feature, allows the seat to be tilted with compromising the balance and stability between the seat and underframe. The way the centre of gravity is only minimally altered as opposed to when using the conventional tilt.

Powered and Foot Pump

There are two options for the lift feature. The Powered version is suitable for lifting larger weights effortlessly while the manual Foot Pump version doesn't require access to an electrical outlet for charging.

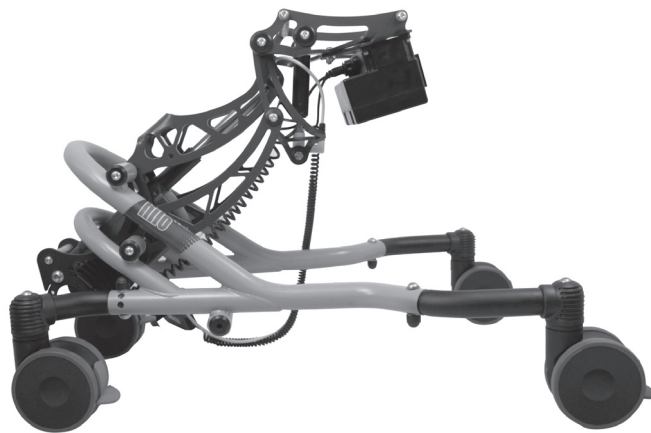
Wheel types

The HILO chassis allows an opportunity for both indoor and outdoor use. Choose between 14” rear wheels or castors.

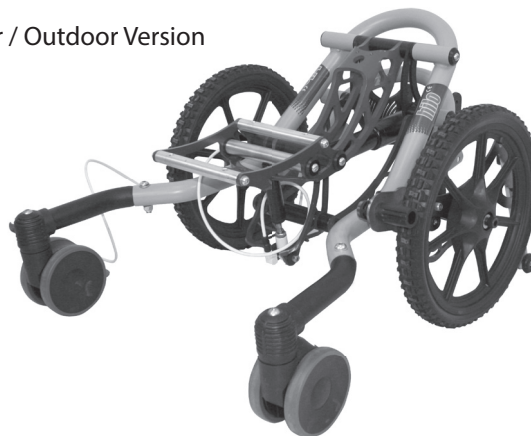
(Different configurations illustrated overleaf).

Chunc HILO Everyday Use

Tilt in space



Indoor / Outdoor Version



Concens Installation

The one-channel C3CON1X control box with wired hand control and rechargeable NiMH battery from concens is a control circuit with many features, which is recommended when controlling an ac-tuator with DC motor. The system normally consists of:

- 1.1) Controlbox (picture 1) with:
 - 2 pcs 6-pole connectors for motor and handset.
 - 1 connector for the Patented 1400mAh NiMH
 - Rechargeable NiMH battery 24VDC, 1400mAh (picture 6)
- 1.2) Handset (picture 2) with 2 buttons and spiral cable.
- 1.3) Charger (picture 3) 100-240VAC
- 1.4) Bracket (picture 4) for mounting C3 controlbox.
- 1.5) Safety clip (picture 5). To be used if controlbox is mounted vertical or upsid down, or if strong fixation is needed. Optional.

The control box is mounted by using the U-shaped safety clip (item 1.5) delivered with the system (pat. Appl). The bracket is made of steel, and can be welded onto the wanted location, or mounted by using the holes in the bracket. The controlbox (item 1.1) is hold in the bracket by the strong neodymium magnets inside the box. If the controlbox is to be mounted in a direction where there is a risk for falling off during mowing, then a spring- loaded safety clip (picture 5) is available (optional).

The actuator and handset must be installed by using the 6-pole (Molex Minifit size 5556) connectors mounted side by side. They are both wired equal 3 enabling flexibility in selecting the wanted connector.

The handset (item 1.2) can be delivered with a hook (picture 7) or with a flat backside (picture 8). The flat backside make the use of wall holder available (picture 9) by utilizing the build-in neodymium magnets in the handset (pat. Appl). Also a string can be used for holding the handset (picture 10).

The manufacturer of this equipment is not aware of any harmful interference caused by this equipment to other equipment. However, there is no guarantee that interference will not occur in particular installations and it is recommended to test the equipment in the actual environment prior to putting it into use.



Concens Operation

Startup

The system is started by inserting the battery into the circular holder in the end of the controlbox (picture 11). Since the battery is held by eight strong neodymium magnets (pat. Appl), it will hold itself in place with the correct position (picture 12), and a confirming BEEEEEEP is heard. This indicates, that the connection is made, the voltage level is accepted, and the system can be used.



When one of the buttons on the handset is pressed (picture 13), then the actuator starts and is mowing until the button is released again, or if the actuator has reached the end of the stroke, whereby the DC motor stalls which will let the control circuit disconnect the voltage to the motor, and switch on the braking system to hold the actuator from mowing.

Features

The same will happen if the actuator meets a resistance for mowing. The controlbox can be programmed to have "soft-start" of the actuator, which is always recommended, since it gives a more smooth movement, and this way of starting a DC motor is avoiding the big start current which is normal without "soft-start". "Soft-start" results in longer lifetime of the motor. The controlbox is programmed to control and protect the actuator. It can be set to control 0-4 Ampere, or max 10 Ampere by internal switch. The controlbox checks the battery level every 24 seconds, and when the battery reaches a low limit, then the controlbox will give a double-beep every 24 seconds to indicate that the battery needs recharging. The battery voltage level is also checked every time the actuator is used, and if the Voltage level is under the pre-programmed level, then the controlbox gives a doublebeep thereby indicating the need for a re-commended recharge of the battery, or exchange to another recharged battery.

Battery

The battery is protected inside with a thermostat which will disconnect the connection to the outside when the inside temperature has reached 55oC. This will prevent a shortcircuit or too heavy use, from damaging the battery. The 2 poles on the end of the battery are the negative voltage connection, and the connector in the centre of the end of the battery is the positive connection.

Handling of batteries

Insert battery: Clean the magnetic poles for all dirt or metal chips. Push the battery into the C3 housing, turn it right or left until it is being pulled into the right position by the magnets in the end of that battery. The C3-controller is confirming connection with a BEEEEEEEEEP. Remove battery: Turn the battery 90 degrees (right- or left) - the battery will be "pushed out" due to the magnets at the top end of the battery. Keep the battery poles free of dirt and metal chips.

Charging battery:

Shall be done in the "C3-charger", full re-charging takes 5-8 hours, depending on state of charge. The battery (NiMH-type) can be recharged from any state of charge without reducing battery life or battery-capacity. When connecting the "C3-charger" to the mains (100 – 240 V AC), the red diode lights up continuously and a single flash in the green diode appear before it turns off again. When inserting the battery into the charger, the green diode starts flashing with an interval of 1/sec during the charging process. When charging is finishing, the green diode stops flashing and turns on continuously, the battery is fully charged, can be removed and is ready for use in the C3 controller. Repeated runs at a high rate with heavy loads, may create overheating inside the battery – a safety interlock-temperature sensor will disconnect the power. When the battery has cooled down to accepted working temperature the power switch on automatically. The battery "is pulled-into" the C3- housing by heavy magnets. Take care with dirt, such as metallic particles and other small magnetic parts ! – in serious cases it may prevent electrical contact and the C3-controller / C3 charger shall to be returned for repair. Always - check for dirt on the battery poles before inserting it into the C3-controller ! Batteries not used: To secure long lifetime of NiMH batteries, we recommend to recharge the battery at least every 3 months.

Concens Operation

Do not dispose batteries in the ordinary household waste. Some communities offer recycling or collection of batteries - contact your local government for disposal practices in your area.

Beep signals:

- BEEEEEEEP: Power on (battery inserted)
BEEP.BEEP: Every 24 seconds (when the
BEEP..BEEP: When starting the actuator = low voltage, please change battery soon, or recharge—the battery will still give power, but only limited time.
BEEEEEEEP: When running the actuator = battery lower than 17,6Volt (only down/ in movement will be accepted thereafter) BEEP.BEEP..BEEP.BEEP
(Temperature inside control box too high, please take a break)

Attention

- If faults are observed, the product must be replaced or returned to manufacturer fo repair.
- If the C3 controller for some reason is not being used for a few days remove battery from the C3 controller to protect the battery against deep discharge and permanent damage.
- Cleaning of product can be done using a damp cloth.

Product warranty and disclaimer

UK, Europe, Rest of World (excluding USA)

The warranty period is 24 months from the date of delivery from the manufacturer.
Any defect found within the warranty period will be corrected without any charge by the manufacturer.

However, the warranty is dependent on the product having been used, handled, stored, maintained, installed and operated in accordance with sound practice, including any instructions issued by the manufacturer. Any misuse or unauthorized alterations will invalidate this warranty.

The manufacturer is not responsible for any modifications made by any third party. Any individual who is to operate or maintain this wheelchair must have read the user and maintenance manual in its entirety. In the event of any breach of the manufacturer's warranty (whether by reason of defective materials, production faults or otherwise) the manufacturer's liability shall be limited to the replacement of the products in question or at the manufacturer's discretion, repayment of the purchase price (where this has been paid).

Chunc Limited holds the British Standard Quality Approval to BS EN ISO 1348.

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