

# companion

## POWER ADD-ON FOR MANUAL WHEELCHAIRS **USER MANUAL**



## Companion User Manual

Dear Customer,

CHEELCARE is proud to introduce you **the Companion power add-on** for your manual wheelchair. We believe that the Companion will become an indispensable partner in your everyday life allowing you to do more and go farther.



**Before using the Companion, please read this manual and follow the provided instructions to ensure the safe use of the product.**

For more information about this and other CHEELCARE products, as well as detailed installation videos, please see:

- CHEELCARE website <https://www.cheelcare.com>.
- Companion product page <https://www.cheelcare.com/products/companion/>.

For any questions or concerns, please contact us:






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## Revision History

Date	Version	Changes
March 18, 2020	V1.0	Initial release.

## Introduction

The Companion power add-on has been developed to extend the mobility of manual wheelchair users. This unique portable device is easily attached and converts your manual wheelchair into a powerful electric unit. Even with the Companion add-on attached, the full unit remains compact enough for easy and comfortable operation even in narrow or crowded places. Just as quickly, the Companion add-on can be detached and thanks to its patented lightweight design, the Companion meets strict travelling requirements.

## Labels and symbols

Please take note of some symbols to better understand the information in this manual.



Manufacturer



Safety warning



Notes



Assembly instructions

## Safety Measures and Precautions



**Read this User Manual carefully and familiarize yourself with the Companion in an indoor environment prior to using the Companion outdoors. When ready, start slowly and in a non-crowded place. Always start driving from Speed Mode 1.**



### **IMPORTANT**

- Read this user manual prior to using the Companion power add-on.
- The use of the Companion by a person unfamiliar with this user manual may result in serious injury or death.
- It is recommended to use the wheelchair anti-tippers during the training period.
- CHEELCARE is not responsible for any injuries or damages caused by using the Companion in contravention of:
  - \* this user manual's instructions and recommendations.
  - \* the direction of an authorised dealer.
  - \* the technical limitations and recommendations of your wheelchair manufacturer.




### **MECHANICAL OPERATION**

- To prevent accidental activation of the Companion, always completely turn the power OFF when parked, transferring from/to the wheelchair or loading/unloading.
- Power OFF the Companion BY KEY and take it out. Powering OFF by the red OFF button only is not safe enough.
- Regularly check that all connection parts are fastened tightly and not damaged.
- Check the LCD battery status before driving to avoid depleting it while you are away from a recharging power source. Keep the battery charger with you if your planned trip might take you further than the unit's current range.
- To avoid injury, do not put your hands between the kickstand and the Power Unit (PU) when lifting, loading or unloading the Companion.
- Do not insert any object in the charging port to avoid unit damage or personal injury.
- In case of any malfunction, turn the Companion OFF and take the key out then contact your local dealer or CHEELCARE for instructions.
- Any modification to the Companion will void the warranty and may compromise your safety.



## WARNING

- The Companion is to be used only by people with the necessary physical capabilities and healthy mental state to drive an electric powered unit and to apply the brakes as necessary.
- The Companion should only be used by one user at a time. Never use the Companion while carrying a child.
- The Companion is not to be driven in poor weather conditions such as strong snow or rain, on ice, or on slippery soil/mud.
- When driving up or downhill, remember to:
  - \* Avoid stopping or making sharp turns as this may cause you to lose control and tip over.
  - \* Lean forward towards the front wheel to improve traction when going uphill.
  - \* Press the handle brakes continuously when going downhill to maintain a slow speed.
-  Do not use the wheelchair brakes when going downhill as they may lock up.
- Do not drive over obstacles higher than 5cm (2") with the Companion attached/connected to the wheelchair. To minimize the risk of tipping over, ensure you drive over obstacles perpendicularly so that both wheels of the wheelchair go over the obstacle at the same time. Ask for help whenever you are not sure you will be able to safely drive over any obstacle in your way.
- General driving recommendations:
  - \* Always start driving in Speed Mode 1 to avoid tire spinning.
  - \* When turning, slow down and lean your body into the curve for better stability.
  - \* Hold handlebars firmly with both hands while driving to maintain controlled steering and braking.
  - \* Always use ramps when available.
  - \* Never drive the Companion up or down steps, on uneven surfaces or on slopes of greater than 10 degrees, both for safety and technical limitations.
  - \* Avoid answering/using your phone or other distractions while using the Companion.
  - \* Do not sit or stand on the Companion Adapter (CA).
  - \* It is strictly forbidden to drive the Companion in a drowsy or intoxicated state.



## IMPORTANT

- Always abide by local traffic rules, laws and regulations.
- Always pay attention to your surroundings to avoid collisions with other vehicles or pedestrians.
- Keep a safe distance from bicycles and pedestrians when riding.
- Stay within the recommended driving speed when using the Companion:
  - 6 km/h on the street, pavement and pedestrian areas.
  - 12 km/h on bicycle lanes.



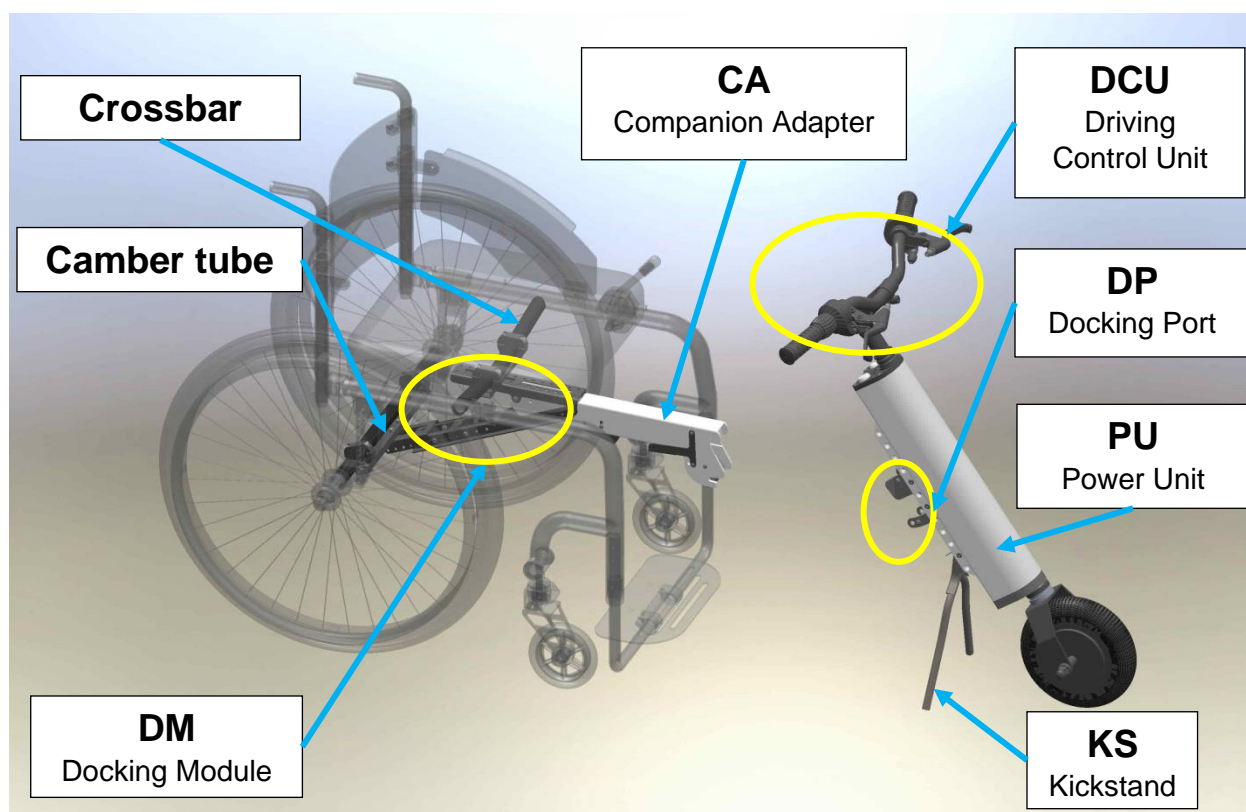
## Overview of Major Components

The Companion consists of three major modules:

- Docking Module (**DM**)
- Companion Adapter (**CA**)
- Companion Unit (**CU**)

The Companion Unit consists of:

- Driving Control Unit (**DCU**)
- Docking Port (**DP**)
- Power Unit (**PU**)
- Kickstand (**KS**)




Pictures and drawings may slightly differ from the actual product.

## Specifications

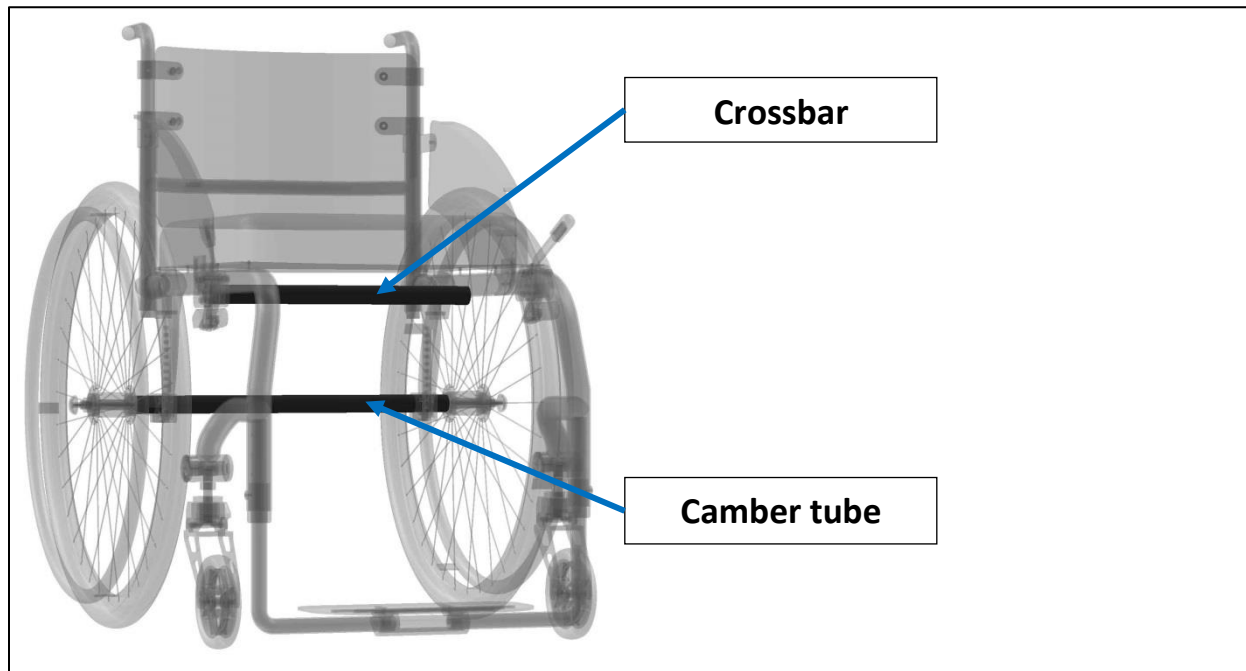
- Hub motor (250W) with 8inch solid tire
- Powerful drum brakes
- Lithium Battery 36V 7.5Ah
- Range up to 25 km/16 miles per full battery charge
- Power On/Off switch with two keys (one spare)
- Three Speed Control
- LCD display shows battery charge status, trip distance and speed
- Companion Unit weight 9.4kg/20lbs
- Companion Adapter weight 0.8kg/1.8lbs
- Recommended combined wheelchair and user weight must be less than 240lb (110kg).

## Docking Requirements for the Wheelchair Frame

 This model of the Companion power add-on is intended for rigid wheelchair models with camber tube and crossbar with a diameter range between 19mm (0.75") and 32mm (1.25").



If your wheelchair has different crossbar and/or camber tube diameter, please contact us for a customized solution.





## Companion Delivery Check Up

- Make sure that the shipping box has not been damaged during transportation.
- If you see any external damage, do not open the box and immediately contact us at [sales@cheelcare.com](mailto:sales@cheelcare.com) and the authorised dealer where the unit was purchased.
- If the shipping box is undamaged, remove all parts of the Companion from the cardboard protective boxes and check that everything is there based on the pictures below.



Do not remove the packaging material separating the two plates of the Docking Port (DP) until after finishing the installation.

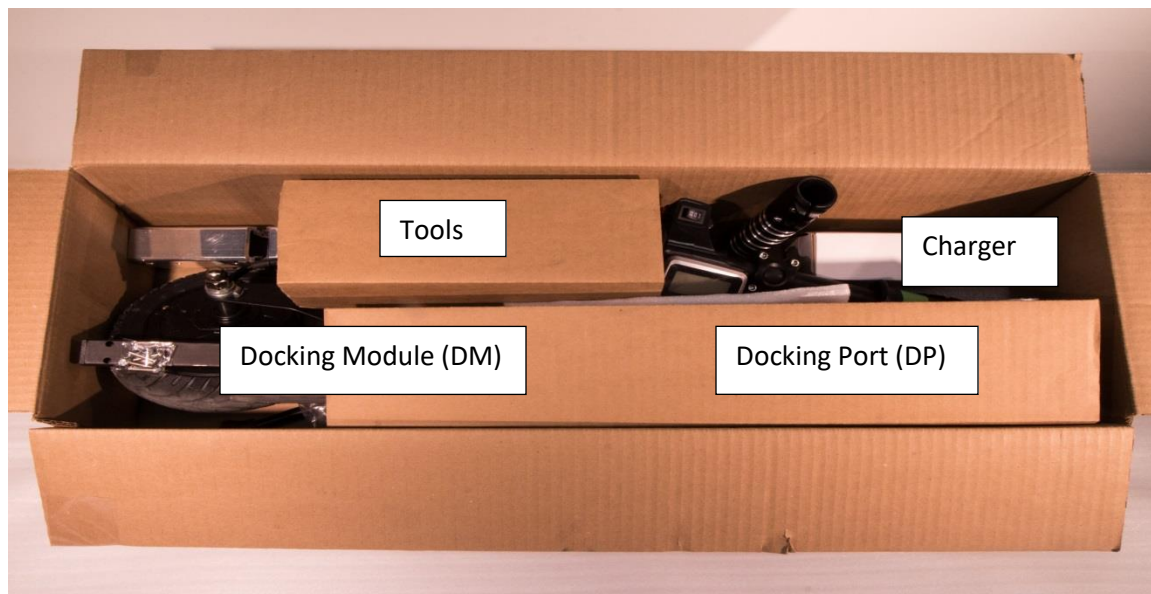
- Check that no parts have any damage, deformation or other defects.
- Fasteners have been placed into bags and are attached to the corresponding parts for assembling.
- In case there are missing parts, stop further assembly and contact the authorised dealer or CHEELCARE.



Do not use damaged parts. In case of a damaged part or parts, contact CHEELCARE or any Companion authorized dealer in your area.

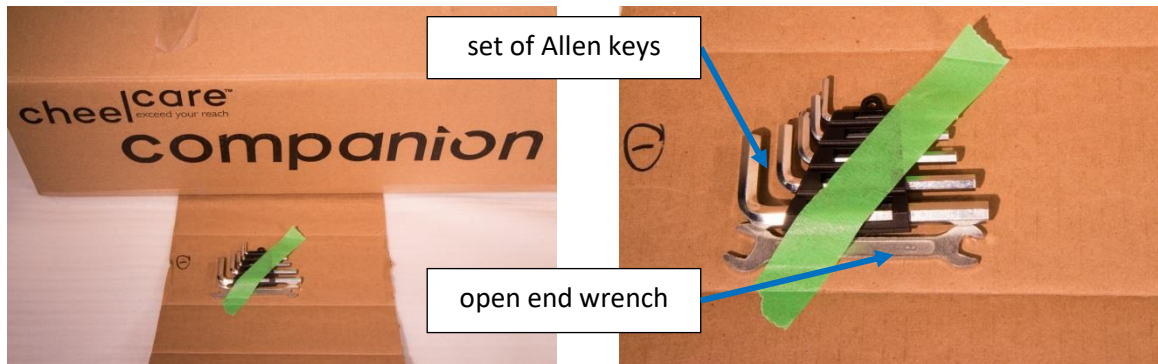
## Unboxing

1. Open the box and visually check its content.




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- For the installation you will need the set of tools included.



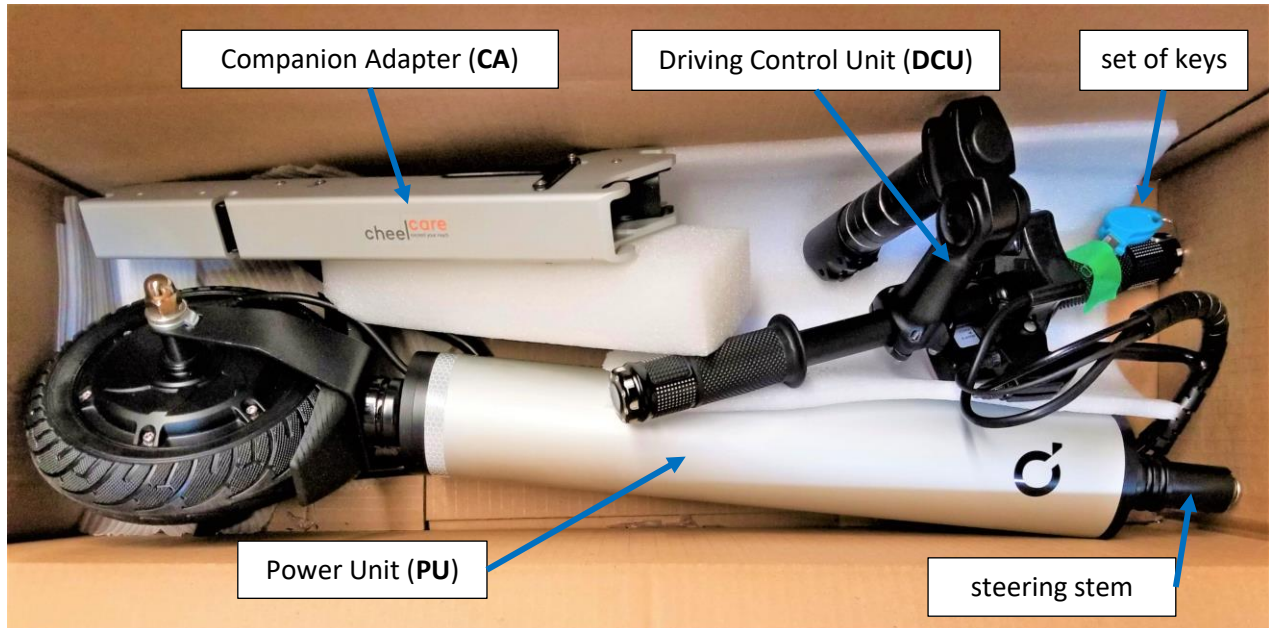
- For your convenience, all details are marked with numbers. Some parts have bags of fasteners attached to them.



-  There is a set of rubber rings and rubber strip included to accommodate bars of different diameter. You will need them for attaching part #1 and part #2 to the camber tube and crossbar respectively.

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5. Check the rest of the box contents for damages.



## Companion Installation Instructions

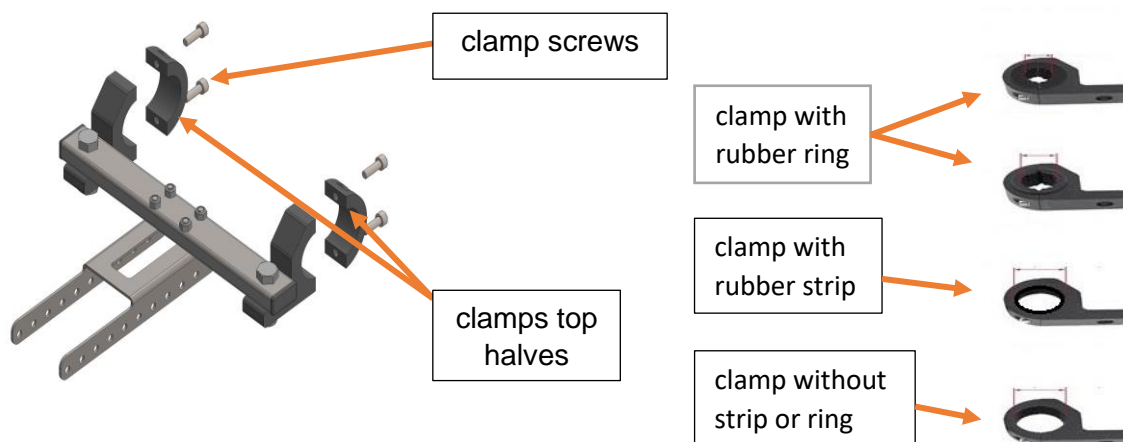


The initial installation requires a certain degree of manual dexterity and physical strength. If anything is unclear or if you are not confident installing the Companion, call a friend or your service provider to guide or assist you. Your local dealer may also provide assistance with the installation and initial set-up or refer you to a service provider.



### Assembling the Docking Module

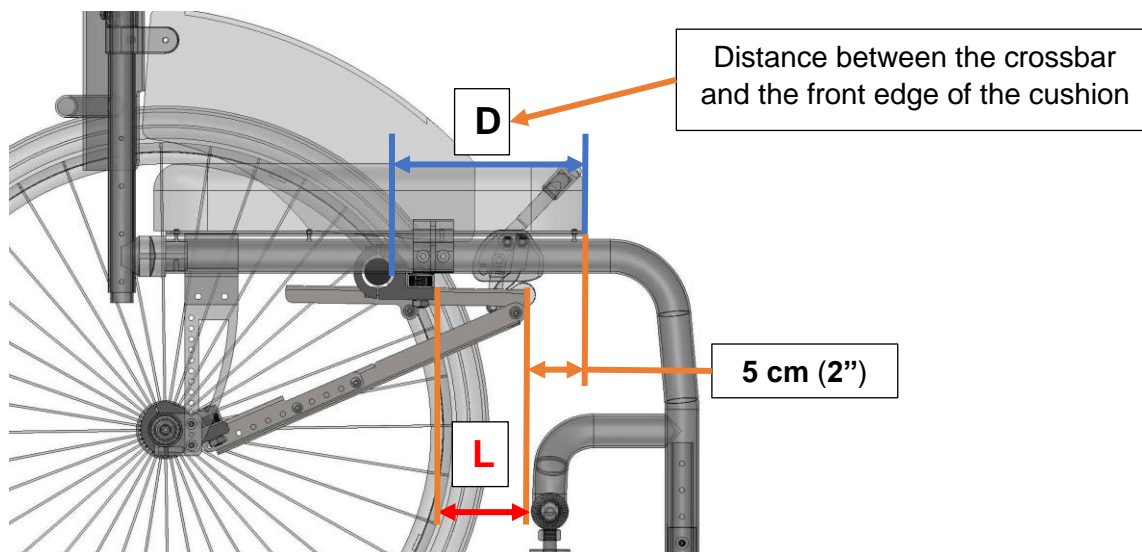
1. Unscrew the clamps top halves from the pre-assembled part #1. Locate the package with the set of rubber rings and strip. Position part #1 under the camber tube of the wheelchair. Depending on the diameter of the crossbar insert matching rubber ring or strip between the clamp and tube to ensure a tight connection. Place the top halves of the clamp over the camber tube. Secure the clamps in place, but do not tighten them yet. You will need to adjust the position of this assembled part later.



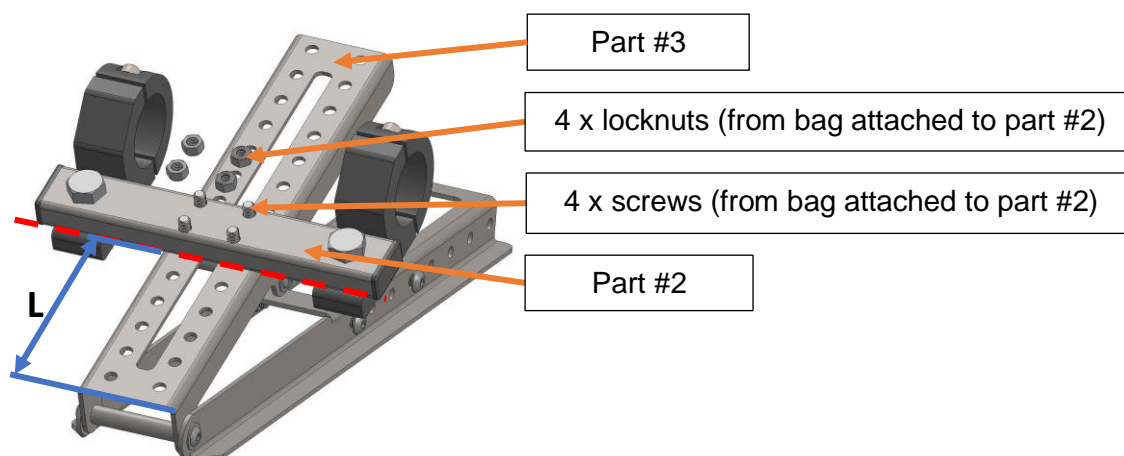


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- Using a ruler or measuring tape measure the length (**D**) from the front edge of the cushion seat to the crossbar. Subtract 9 cm (3.5") from this length. Use this measurement (**L**) in the next step.  $L = D - 9\text{cm}$  if using metric system (or  $L = D - 3.5"$  if using imperial).

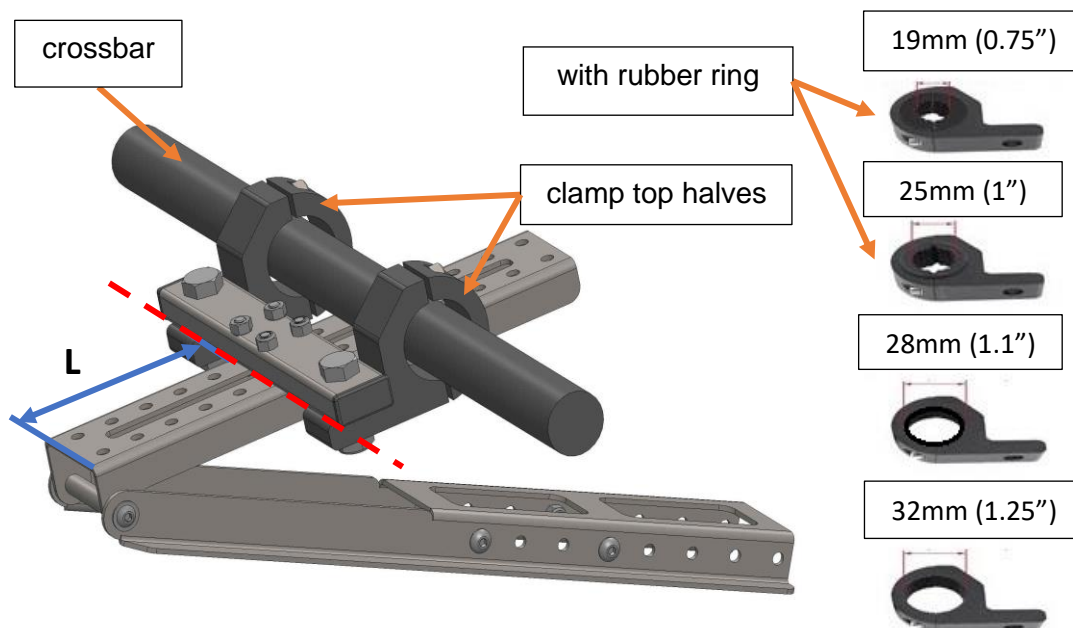


- Position part #2 on top of part #3 at the distance **L** from the edge. Take the screws and locknuts from the bag attached to part #2. Insert the screws from below into the holes closest to marked location. Tighten the screws with an Allen key as you hold the locknuts in place with the open-end wrench.

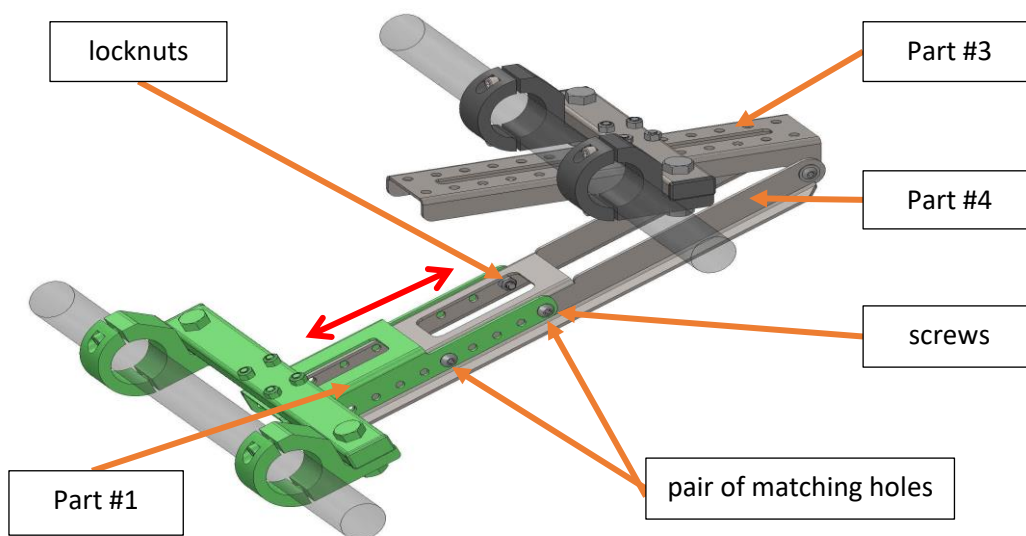


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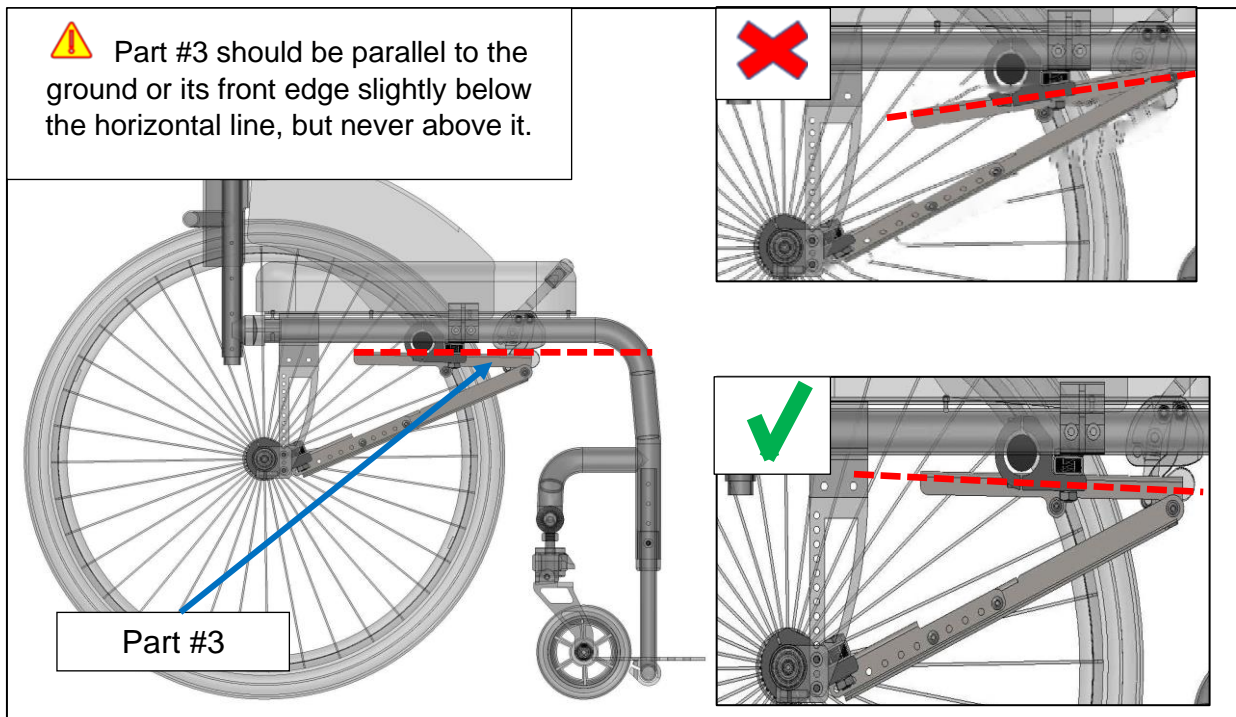
4. Unscrew the clamps top halves. Position the assembled module under the crossbar of the wheelchair. Place the top half of the clamp over the crossbar. Depending on the diameter of the crossbar insert matching rubber ring or strip between the clamp and tube to ensure a tight connection. Secure the clamp in place with an Allen key, but do not tighten them yet. You will need to adjust the position of this part later.



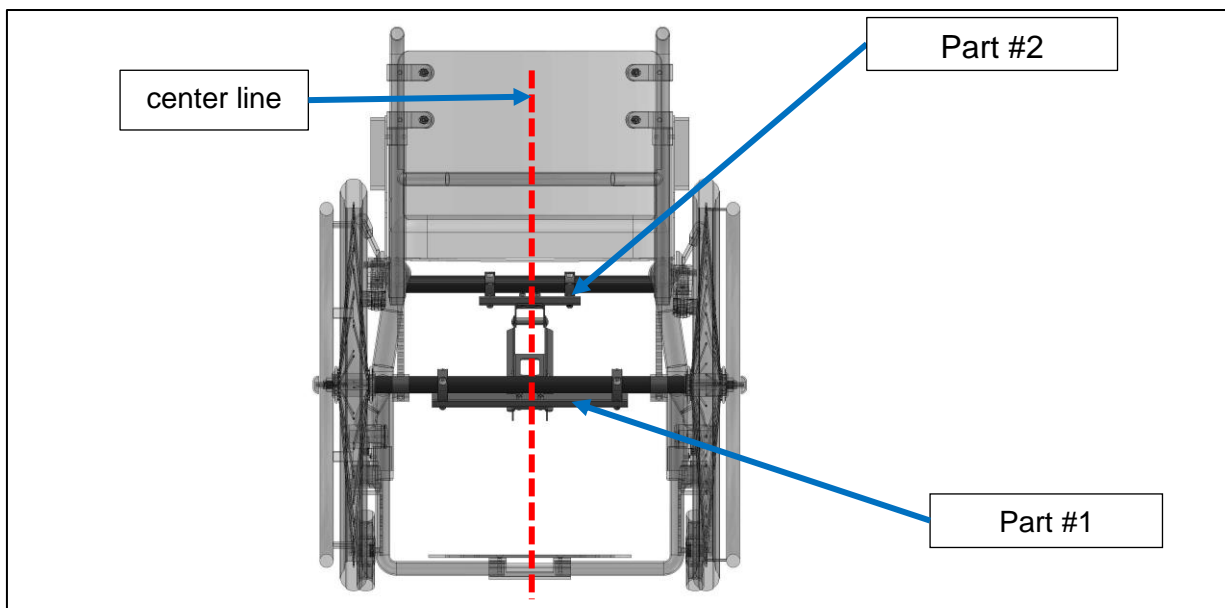
5. Align part #1 and part #4 together. Slide them one into another until part #3 is parallel to the ground. Once this position is achieved, locate two matching pairs of holes in part #4 and part #1. Fasten using the screws and locknuts from the bag attached to part #4. Tighten the screws with an Allen key while holding the locknuts in place with the open-end wrench.







6. Using a ruler or measuring tape, make sure that part #1 is centered in the middle of the camber tube, then secure the clamps in place by tightening the screws.



7. Using a ruler or measuring tape, make sure that part #2 is centered in the middle of the crossbar, then secure the clamps in place by tightening the screws.
8. Your chair is now equipped with the lightweight universal Docking Module developed for you by CHEELCARE.

## Attaching/ Detaching the Companion Adapter

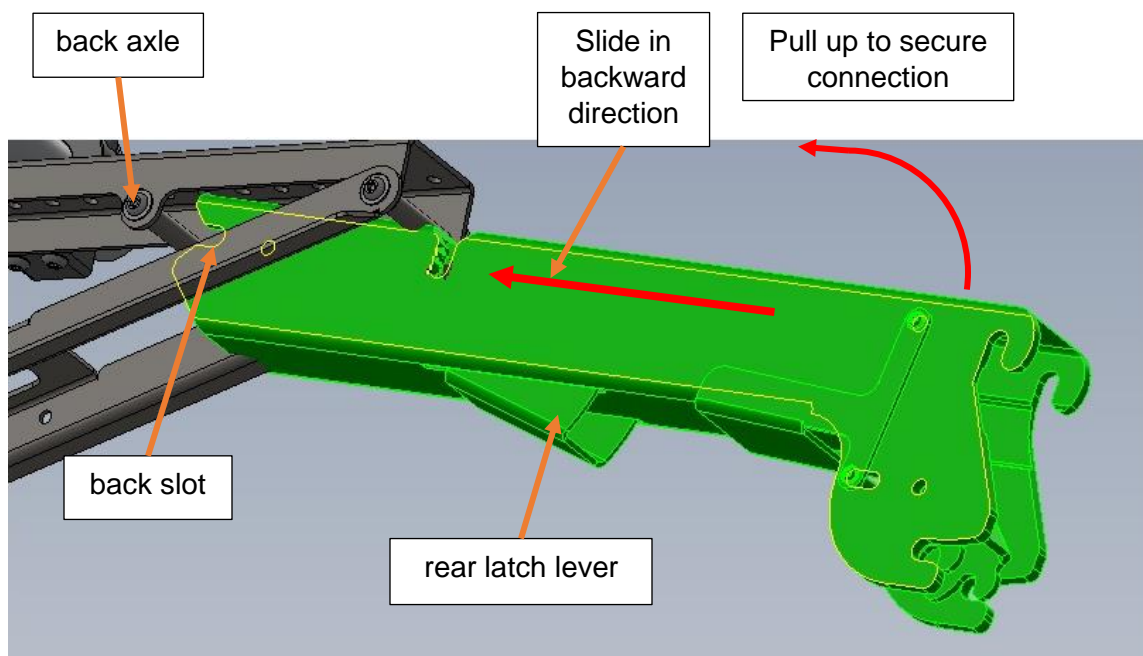
- ▲ The Companion Adapter (CA) is shipped to you fully assembled. Do not disassemble the Companion Adapter to avoid injury and warranty issues.

### 1. To **attach** the Companion Adapter to the Docking Module:

1.1 Insert it in the Docking Module as shown in the drawing below.

1.2 Slide the Companion Adapter backward and up at an angle so that the back slot aligns with the back axle of the Docking Module.


1.3 Pull the front of the Companion Adapter up until you hear a click which indicates that the mechanism is securely locked in place.



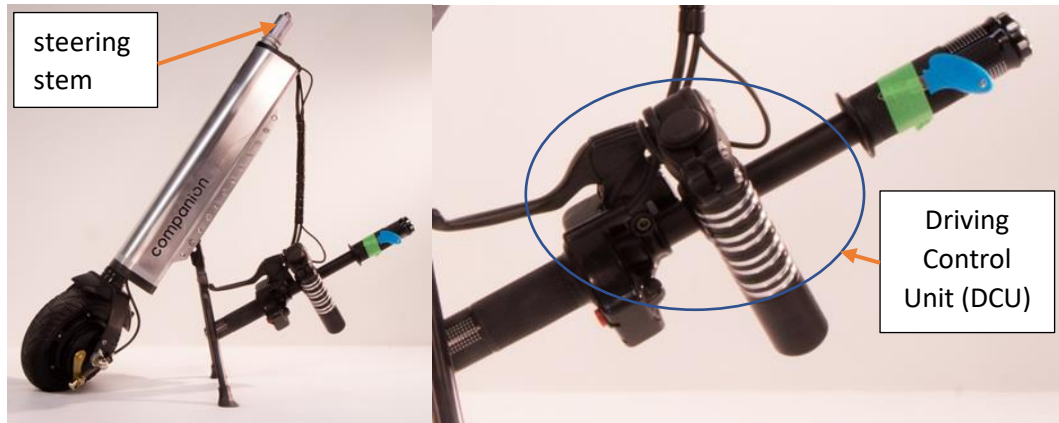
- ### 2 To **detach** the Companion Adapter from the Docking Module, press the rear latch lever, then push the Companion Adapter down and pull it out.

## Assembling the Companion Power Unit

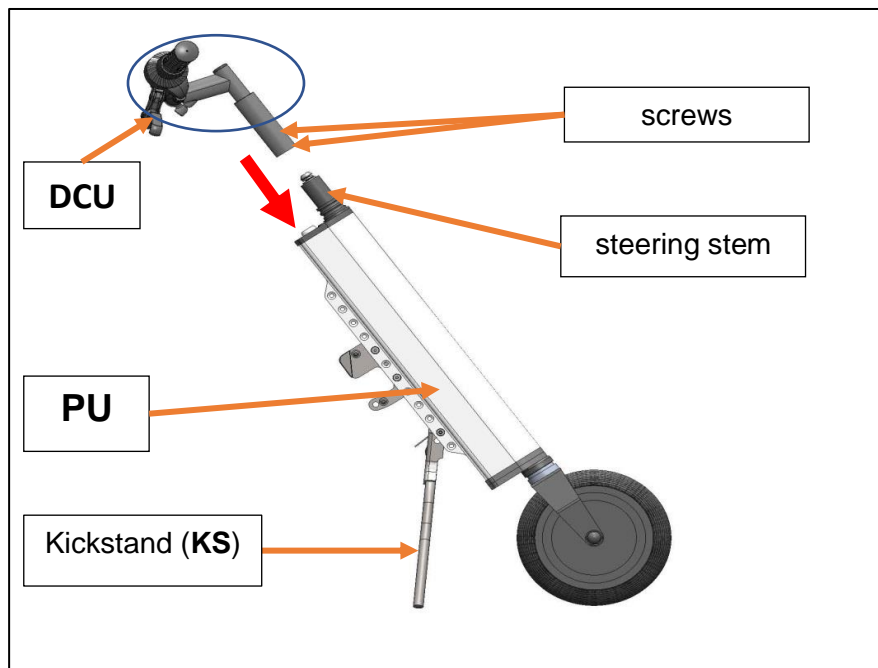
### Control module installation

 Failure to properly align the parts, tighten the screws or properly position and secure the stem extender and the adjustable stem may result in personal injury.

1. Fully slide the Driving Control Unit (DCU) into the steering stem of the Power Unit (PU).



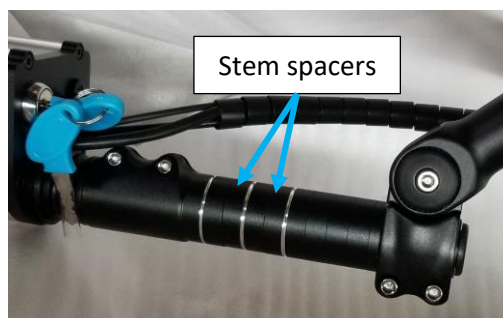
2. Visually align the handlebars perpendicular to the wheel.



3. Tighten the clamp screws on the stem.

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- To change the angle of the adjustable handlebar stem, loosen the screw, raise or lower the handlebar as necessary and retighten the screw. (see left pic below)

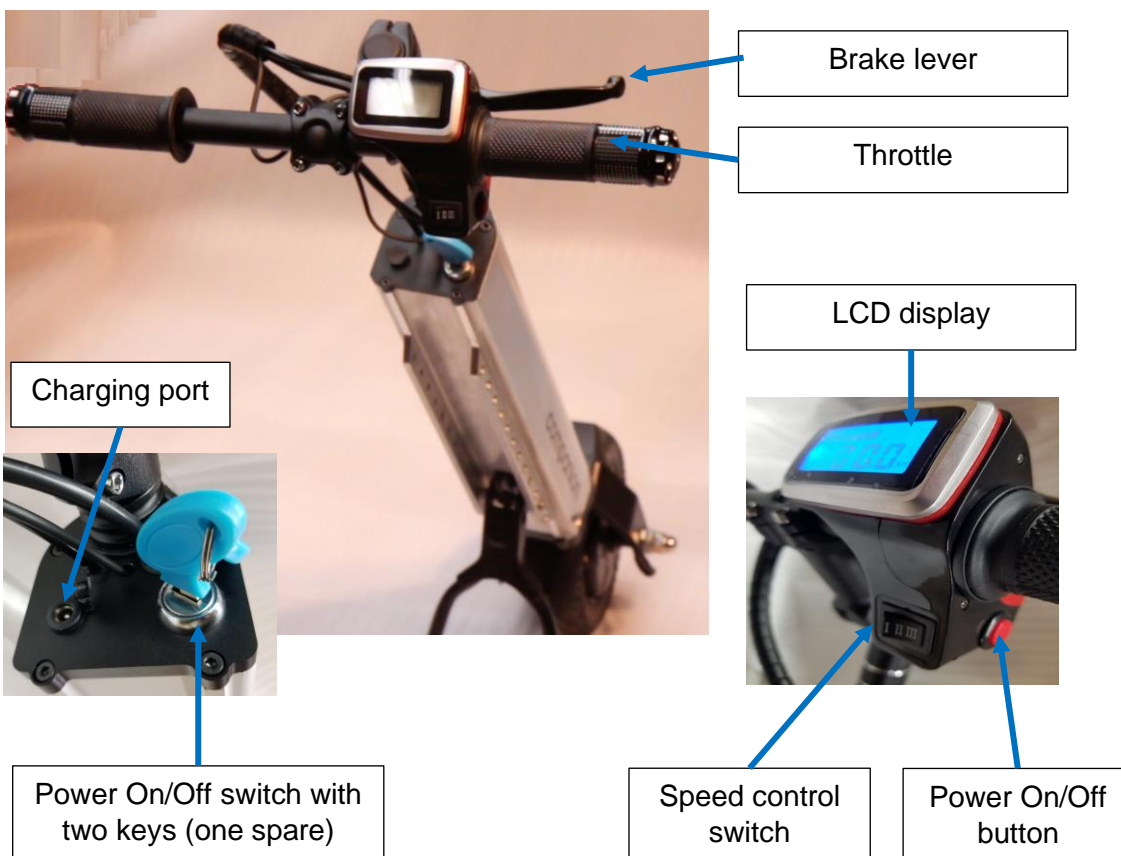


- You also may adjust the height of the handlebar by adding or removing stem spacers from the stem extender. (see right picture above).



To avoid risk of injury and unit damage, do not power ON the Companion without securing the DCU connection to the steering stem of the Power Unit.

- Driving Control Unit (DCU) components





## Docking port installation



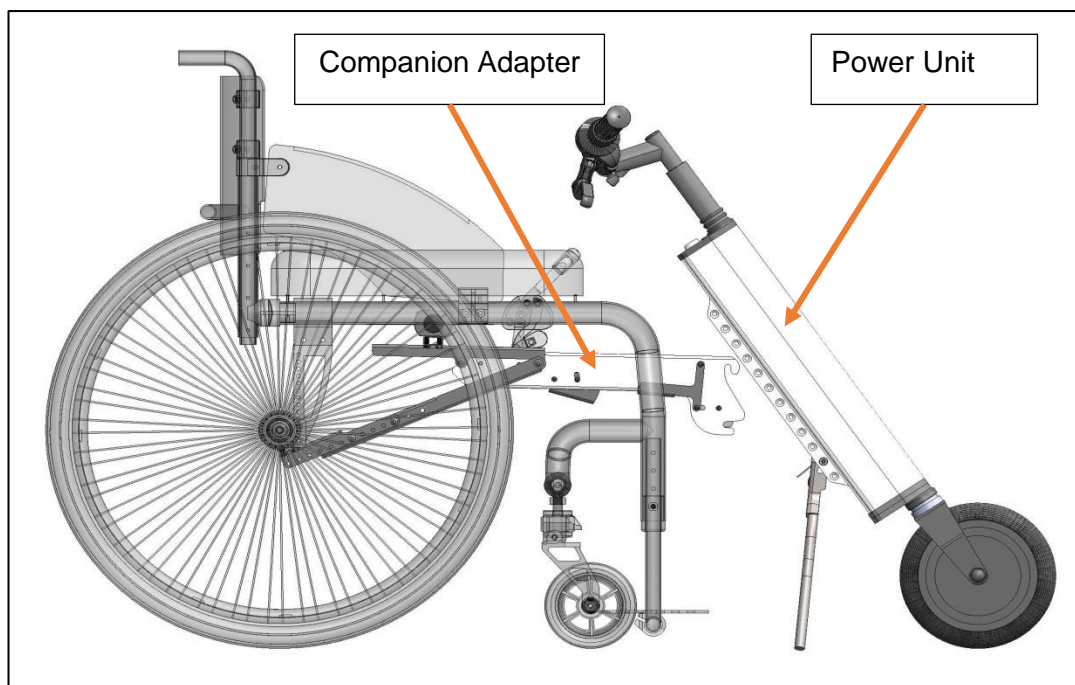
Before installing the Docking Port, please attach the Companion Adapter to the Docking module of your chair. This is needed to assess the proper position of the Docking Port (see picture further below).

1. To install the Docking Port (DP) you will need part #5 and the screws and locknuts from the bag attached to part #5.
2. Part #5 consists of two plates with two pre-assembled axles. The plates are separated by packaging material.



Do not remove the packaging material separating the two plates of the Docking Port (DP) until after finishing the installation.

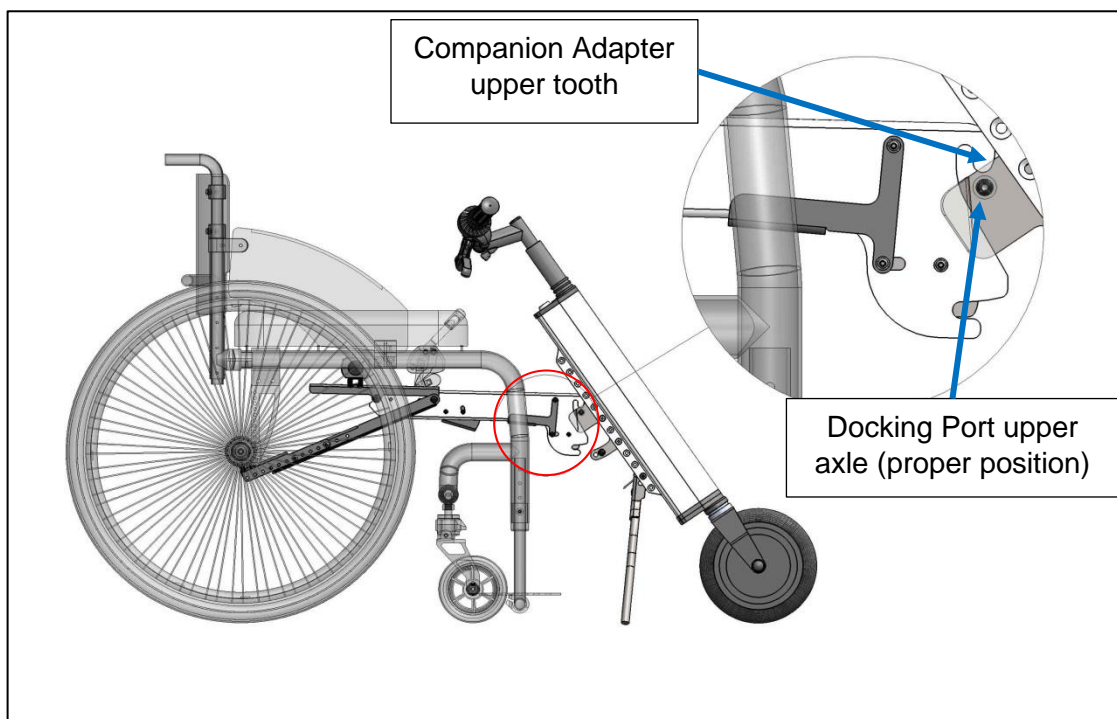
3. Let the Companion Power Unit to freely stand on the kickstand.
4. Move the wheelchair with the Companion Adapter to slightly contact the Power Unit as shown in the picture below.



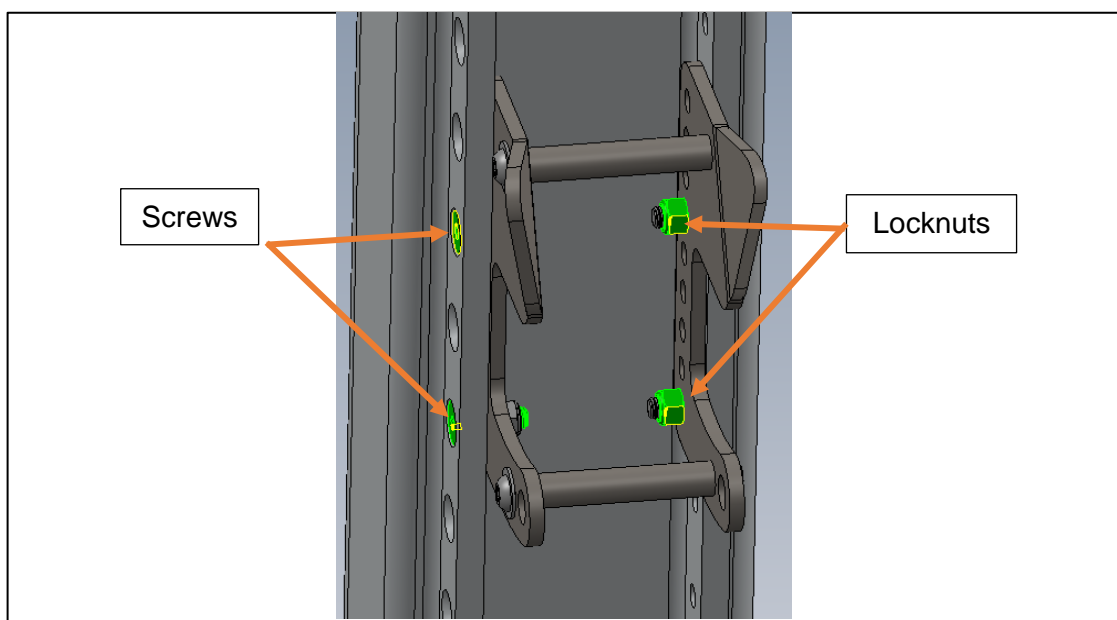


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- Place the Docking Port (part #5) on the back of the Power Unit. Slide the Docking Port up or down so that its upper axle touches the upper tooth of the Companion Adapter. Mark this position.



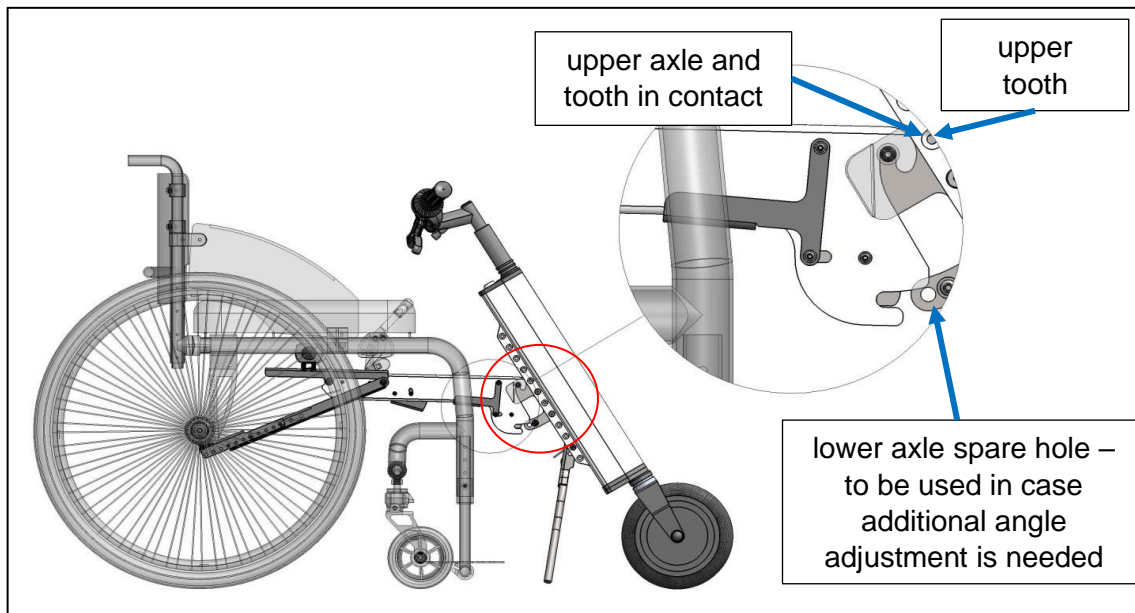
- Insert the screws through the holes in the Power Module that align with the holes of the Docking Port plates. Secure with the locknuts but do not tighten them yet.



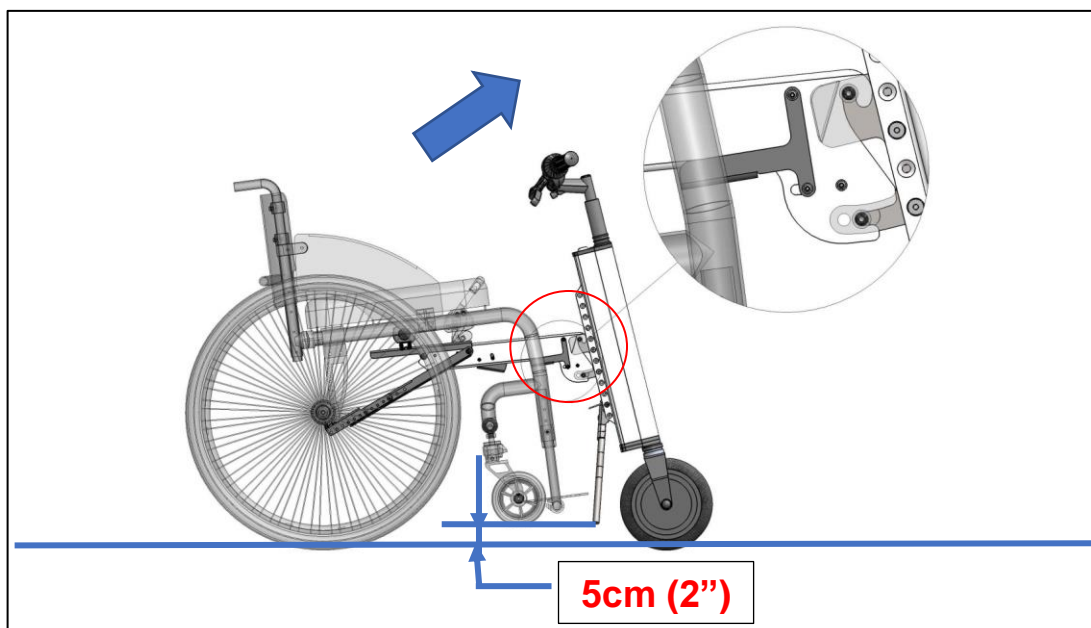


## Attaching the Companion Unit to the Companion Adapter

1. Bring the Companion Adapter's upper tooth in contact with the upper axle of the Docking Port.

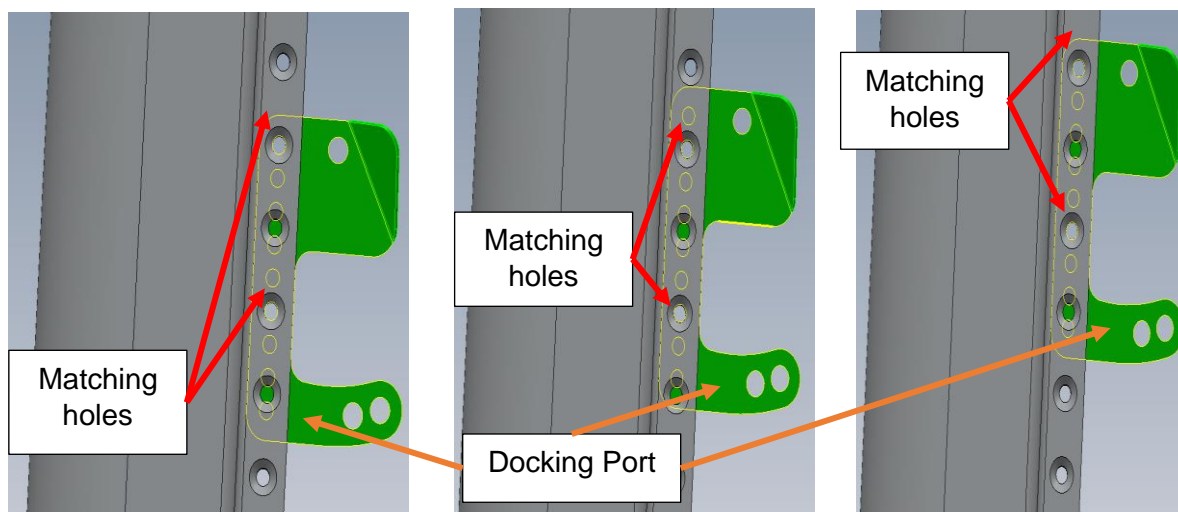


2. Use both hands to push the handlebar forward and slightly up from the wheelchair as shown (the Companion will pivot on the upper axle.) until you hear a click; this will mean that the locking mechanism is activated and the Adapter and the Power Unit are connected. The casters of your wheelchair should lift off the ground. The recommended gap between the casters and the ground is about **five centimeters (two inches)**.



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3. If the recommended gap of five centimeters (**two inches**) is not achieved, slide the Docking Port up or down on the Power Unit to the next set of matching holes until gap achieved.



4. Once you have achieved optimal position of the Docking Port, tighten the screws with an Allen key while holding the locknuts in place with the open-end wrench.

## Detaching the Companion Unit from the Companion Adapter

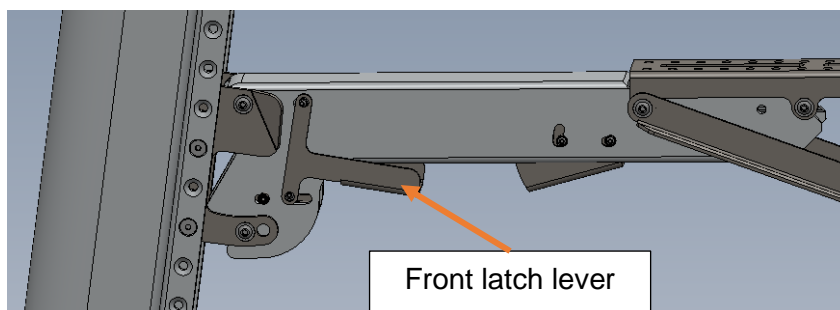


The wheelchair casters are lifted off the ground. When detaching the Companion Unit, the front of your wheelchair will fall from five centimeters (**two inches**) height. To avoid injury while detaching the Companion Unit from the Adapter, firmly hold the steering stem with one hand while pressing the release front latch lever with the other hand.




Power OFF the Companion with the key before detachment or attachment. Take the key out of the switch to ensure there is no accidental power ON. Failure to power OFF during attaching/detaching may result in personal injury.

1. To detach the Companion Unit from the Companion Adapter, first firmly hold the steering stem with one hand.
2. With the other hand press the front latch lever. The Power Unit will remain standing as the kickstands deploys.



## Companion Operating Instructions



Before operating/driving the Companion, please read carefully the  **Safety Measures and Precautions** chapter of the Companion User Manual.

### Powering On / Off

The Companion is shipped with two keys. Please store the spare key in a safe place.

1. To turn the Companion ON, insert the key into the keylock on the power module and turn it clockwise; then press the red button located under the right handlebar. The LCD Display will show the current status of the battery.
2. To turn the Companion OFF, press the red button again, turn the key counter-clockwise and remove the key from the lock.



During transportation, always turn the unit **OFF** and **remove the key** from the keylock to prevent accidental powering of the unit. The red button may stay in pressed position if the unit power OFF is done by key only.

### Driving



Always keep both your hands on the handlebar in order to maintain control.

1. Place both hands on the handlebars.
2. To start driving, twist the throttle on the right handlebar. Always start on Speed Mode 1 and slightly increase throttle twist to achieve desired speed in accordance to your surroundings, road and weather conditions.
3. To slow down and/or stop, release the throttle and press the brakes handle.
4. You can keep track of your speed on the LCD display. Always follow existing local rules and regulations.



Safety Tips:

- Drive in a safe and polite manner to avoid any collision with others.
- Keep a safe speed and distance with the objects around you.
- Slow down before changing direction and while turning to avoid falling and/or losing control.
- It is recommended to install reflectors and/or a bright light on the Companion. For safety reasons, wear bright colored clothing while riding at night or during poor visibility conditions.

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## Braking

To stop, pull on the brake lever located in front of the right handlebar.

⚠️ Avoid hard braking when turning to prevent you from falling or losing control.



## Charging the Companion

The LCD Display shows the current charge level of the battery of the Companion. Always plan your ride so that you have enough power for your whole trip.



## To charge the battery:

1. Turn the Companion OFF and remove the key.
2. Connect the charger to the charging port and the other end to a standard outlet.
  - ⚠️ **Important: To charge the Companion use only the charger provided.**
  - A red light on the charger indicates that the Companion battery is charging.
  - A green light indicates that the Companion battery is completely charged.
3. When charging is complete, disconnect the charger from the charging port.



The battery is the “heart” of your Companion. Please, follow **Companion Maintenance** recommendations to ensure its long-lasting service.




## Companion Maintenance

The Companion has been carefully designed for optimal performance. To ensure its long-lasting service and to prolong its lifespan, the following maintenance tasks and general precautions must be followed. It is strongly recommended to perform periodic maintenance and safety checks on the Companion by following these steps, as improper maintenance may cause failure and invalidate the warranty.

### Battery Care and Charging

1. Do not let the battery discharge completely. When the system indicates a low battery charge, charge the battery as soon as possible.
2. Only use the charger provided with the Companion.
3. Do not insert any metal or other objects into the charging port of the Companion, as this may cause unit damage and/or personal injury.
4. The Companion battery is made from materials that are at risk of causing an explosion and/or fire if exposed. Never open the Power Unit; it contains the battery pack.
5. The Companion should be used in a temperature range of -10°C to 40°C (14°F - 104°F). Store the Companion in a dry environment at a room temperature. Using or storing the Companion beyond the recommended temperature ranges may shorten the battery life.
6. If your Companion is not going to be used for a long period of time, make sure it is still being fully charged every two months in order to avoid “deep discharge” damage.

### Cleaning and Overall Care

1.  Always ensure the Companion is powered off and the charger is unplugged before cleaning to prevent damage and the risk of electric shock.
2. The exterior frame and wheel can be cleaned using a soft cloth dipped in non-abrasive soap and water.
3.  Do not use high pressure washers like a hose or water gun. Never submerge the Companion under water.
4. Store the device indoors in dry conditions. Keeping the Companion in an outdoor environment with strong sunlight may cause the finish to fade more quickly or cause other deteriorations.
5. It is recommended to regularly perform small maintenance tasks such as tightening screws and aligning handlebars to keep your Companion safe and in top shape. Please contact Cheelcare for any significant maintenance issues or for any problems you are unable to solve.
6.  Do not disassemble the Companion's Power Unit on your own. The device's internal structure is very precise and can be easily damaged unless handled by authorized service professionals. The manufacturer can not hold be responsible for any personal injury or property damage caused by total or partial disassembly of the Companion's Power Unit.

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### Maintenance schedule

Task	How Often?	How?
Clean Companion exterior	Monthly	Clean using a soft cloth dipped in soap and water: avoid hoses and pressure washers.
Check wheel	Weekly	Clean dirt from the wheel and check wheel tread.
Check brake pad wear	Every 6 Months	Check for effective braking by squeezing the brake lever. Have an authorised service provider to service or replace brake pads.
Professional Companion inspection	Yearly	Have an authorised professional service provider to service the device.
Replace tires	As necessary	Have an authorised professional service provider to replace the tires.
Check fastening screws	Weekly	Inspect fasteners visually for any damage. Check that all connections are tightened properly.

### Troubleshooting Guide

#### The Companion Unit is not powering ON:

- Make sure that you turned ON the power with your key and pressed the red power button on the handlebar.
- Ensure that the battery is fully charged (charger indicates a GREEN light).

#### The front wheel slips – spins in place:

- The front wheel is too far from your wheelchair. Adjust the Companion Unit so that the front wheel is as close as possible to the footrest. The Power Unit should be almost vertical when the Companion is attached to your wheelchair.
- When driving uphill, lean forward in your wheelchair to shift your center of gravity forward.
- Check the tire thread; replace if too worn out. Always start slow, in Speed Mode 1.



## Warranty Terms

- Unit warranty start from the day of delivery to the end user if not specified otherwise.
- This warranty does not include shipping or transportation costs required for repairing the device.
- CHEELCARE reserves the right to charge the owner for any costs incurred from defective parts due to damage to the Companion not covered by this warranty.
- When calling your service provider or CHEELCARE with service or warranty issues, please provide the serial number (**S/N**) and date of purchase of your Companion.



The **S/N** of your unit is on the back of the Power Unit (PU), just below the kickstand.

### Warranty Exclusions (excluding factory defects):

- Tires
- Brake pads and cables
- Handgrips
- Any other normal wear-and-tear part

## Warranty period



The warranty period for all structural parts is valid a period of two (2) years from the date of delivery and the battery, motor and electronics for a period of one (1) year from the date of delivery.

- Replacements or repairs completed within the original warranty period by an authorized service provider will have an additional one-year warranty from the repair date.

## Warranty conditions

CHEELCARE will not be responsible for any damage that may arise as a result of improper Companion usage or storage. The warranty may be invalidated if one or more of the following has taken place:

- The user has not followed the recommended Companion Maintenance outlined in this manual.
- The internal structures of the Companion have been disassembled, installed or repaired by the user or an unauthorized third party.
- The Companion has been damaged as a result of accidents caused in disregard of the Safety Measures and Precautions in this manual, such as speeding or driving over obstacles over the recommended limits.
- The device has undergone any modifications or repairs that were not done by a registered service provider.
- The Companion has been damaged due to negligence or improper use.
- Any faults to the Companion that may have been caused by poor storage conditions.
- The device was damaged while undergoing transportation or improper handling.
- Any other faults not caused by the Companion's manufacturer own design or technology.

## Warranty Registration Form

Please fill out the information below.

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State / Province: \_\_\_\_\_  
Zip / Postal Code: \_\_\_\_\_  
Email: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Companion S/N: \_\_\_\_\_  
Purchased From(vendor): \_\_\_\_\_  
Date of Purchase: \_\_\_\_\_

Please keep a copy of this registration form for your records and send the completed form within 30 days of receipt of your unit (by mail or email) to:



**Cheelcare**  
16 Sims Crescent, Unit 20  
Richmond Hill, ON, L4B 2P1  
Canada

or

[sales@cheelcare.com](mailto:sales@cheelcare.com)