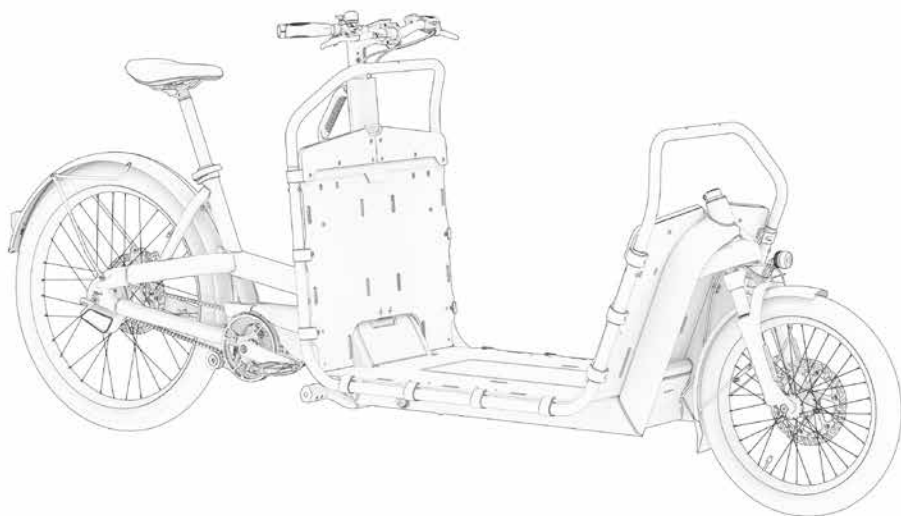


CO GO

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FS200 Vario

User manual



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The present assembly instructions is the translation of the original assembly instructions.

Safety notices

This user manual contains various types of notice.
The notices are designed as follows:



Danger

Potential hazards for your health and the health of your co-riders and other road users if you fail to observe the respective instructions or do not take corresponding precautions.



Notice

Provides information about how to handle the product or refers to a passage in the user manual that deserves special attention.



Caution

Warns you about incorrect behaviour that can result in material and environmental damage.



Separate instructions

Refers you to other assembly instructions for your FS200 Vario, which describe the respective assembly step in more detail if needed.

General information

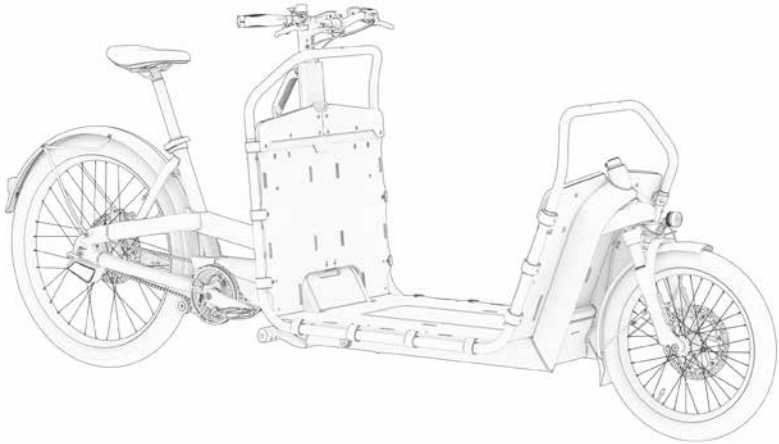


Fig. 1

To ensure that you can use your FS200 Vario safely from day to day, please pay particular attention to the following information:

Attentiveness

Only a damage can stop you. Therefore, please stay attentive and take care of yourself, your bike and other road users.

Traffic rules

Even if it is taxing at times, please observe the traffic rules and pay attention to your fellow human beings.

Driving licence

Life is easier on the bike. You do not need a driving license to ride your FS200 Vario. Since the motor stops providing support at 25 km/h, your FS200 Vario is legally rated as a bicycle.

Fitness to ride

Respect yourself, be fair to others. Drugs, alcohol or medication that affects your fitness to ride are not compatible with your FS200 Vario and do not belong in road traffic.

Helmet

Your head is your capital. For your own sake, and that of your loved ones, always wear a helmet. This naturally also applies to all passengers you ride with.

Weather

No matter the weather: Your FS200 Vario is easy to take care of and comes equipped with high-quality components. Neither rain, hail nor snow can faze your FS200 Vario, provided you give it the necessary care in accordance with this user manual and the accompanying component manufacturers' instructions.

Please note that the FS200 Vario may handle differently in adverse environmental conditions and that the stopping distance increases if the road surface is wet. Please drive carefully as is appropriate.

Legal requirements

If you want to use your FS200 Vario in road traffic, the bike needs to be equipped in accordance with the rules and regulations in the country of use. It is legally equivalent to a bicycle and therefore subject to the same rules and regulations.

In Germany, these are codified in the **Road Traffic Registration Ordinance** (StVZO) and the Traffic Regulations (StVO).

Traffic rules and technical regulations are not the same in all countries. If you plan to ride your FS200 Vario outside Germany: Please familiarise yourself with the legal requirements in your country before your first ride, and make sure you observe them.

Intended use



Your FS200 Vario is designed for use on roads and surfaced paths only. Therefore you should not ride it down stairs, perform jumps or wheelies – treat your bike with care and you will be able to enjoy it for a long time.



Permissible overall weight =

- Weight of rider +
- Bike weight +
- Additional load in transport box +
- Weight of optional pannier rack

Permissible overall weight: 225 kg

- Weight of rider (in this example): 84 kg max.
- Unladen weight of the FS200 Vario: 55 kg
- Additional load in transport box (children including luggage): 70 kg max.
- Additional load on Wingee bag rails: 16 kg max. (8 kg right, 8 kg left)



Operating, maintenance and servicing conditions described in this user manual are part of the intended use. We are not able to provide you with a warranty if

- your FS200 Vario is used outside the scope of this intended use,
- safety notices are not observed,
- specified maintenance intervals are not observed,
- the bike is overloaded, or
- defects are or have been eliminated incorrectly.



Furthermore, we cannot assume any warranty or liability in the case of assembly errors and if a warranty or liability case could have been prevented by observing the requirements for maintenance and care. Modifications of the gear system and/or changes to the electric system (tuning) will result in the loss of all warranty claims, as well as any guarantee issued. Your FS200 Vario is not approved for use in competitions.

Before your first ride

We ask that you **read all warnings and notices** in this manual and the accompanying instructions before your first ride. If you have questions after reading them, the Ca Go team is available in the FAQ section of www.cagobike.com.

To be able to start riding your FS200 Vario as soon as possible while staying safe, here are the most important steps to follow imperatively before your first ride.

Step 1: Charging the battery

When you take delivery of your new FS200 Vario, the rechargeable battery may not be fully charged. Before going on your first ride, check the charge state of the rechargeable battery. There are two ways to do this: Press the button on the rechargeable battery. The charge state of the rechargeable battery is indicated by the 5 integrated green LEDs. Each LED represents approximately 20 % of a full charge. This means that if all 5 LEDs light up, the rechargeable battery is fully charged.

Alternatively, you can see the charge state in the Kiox display if the rechargeable battery is mounted and the system is switched on. Please charge the rechargeable battery fully before your first ride. You can monitor the charging process through the LEDs on the rechargeable battery. The LED corresponding to the segment currently being charged is flashing.



You can take the rechargeable battery out of the battery safe to charge it. Alternatively, you can also charge it while it is mounted by using the integrated charging port.

Step 2: Safety checklist

To be able to ride safely, please check the safety-relevant parts listed here.

- Have saddle, seat post and handlebar been positioned and fastened safely and correctly?
- Is the steering working and without play?
- Are you familiar with the platform pedals? (There is a risk of slipping off the pedals in the wet)
- Are the wheels fastened and correctly installed in the frame and fork?
- Are you familiar with the control elements?
- Are the tyres inflated to the correct pressure to suit the cargo? You can find the recommended pressure values on the CE label on the battery safe.
- Do the brakes work flawlessly?
- Are you able to reach the brake levers without problems?
- Are all important mounting bolts and nuts tightened correctly?

Step 3: Proper fit

Ensure that your **sitting position** on the bike is right for you.

We have compiled a few **tips** to help you find the ideal position:

The FS200 Vario is designed to allow for a **relaxed position** when riding. This means you can place both feet fully on the ground while still sitting in the saddle. You can thus keep the FS200 Vario stable while standing, with both hands on the handlebars.

You can check the **correct saddle height** while seated on your FS200 Vario. Adjust the saddle to what you estimate is the correct height. Sit on your FS200 Vario after placing it on the kickstand. Alternatively, have a second person hold the bike for you or lean against a wall or railing. Position a pedal at its lowest position and place your heel on it. Your leg should be fully extended.

Make sure that your **back** is not stretched too far forward. This would place a lot of strain on your lower back and your wrists and is very uncomfortable.



You can find more information on the kickstand and the correct saddle height in the following sections.

Step 4: Switching on the Bosch eBike system

To be able to ride safely, please check the safety-relevant parts listed here.

If the rechargeable battery has a charge, the drive system can be switched on and off from the Bosch Kiox display. This is where you can read the charge state of the battery, your speed and the level of assistance you are using.

- **To start the system, press the On/Off button on the bottom-left of your display.**
- **Select the desired level of assistance from the control unit (satellite).**
- **For better visibility, we recommend keeping the lights switched on at all times. Therefore we have programmed your FS200 Vario in the factory to always have the light switched on automatically.**



Before putting pressure on the pedals, always pull both brake levers first! The drive support (motor) helps to propel the FS200 Vario directly as soon as you push a pedal. This push can lead to dangerous situations if you ignore or fail to adhere to this safety notice on braking.

Before every ride (quick check)

Checklist

Wheels

Check the tyre pressure and the condition of the tyres. You can find more information on page 24. The wheels need to turn easily and run reasonably concentrically.

Lighting

You should check that your front and rear lights are functional and that the front light is adjusted so as not to blind oncoming traffic.

Brakes

Check the brakes by pulling both brake levers. It is important that you can feel a definite pressure point and that the levers cannot be pulled all the way to the handle grip.

Additional cargo

Your cargo must always be safely fastened. Never load your FS200 Vario lop-sided and make sure that no safety-relevant parts are covered or functionally affected by the cargo. Putting cargo on the bike can change its handling characteristics. Poor weight distribution can negatively affect riding stability.

Overall weight

Make sure to never exceed the permissible overall weight of 225 kg.

Rechargeable battery by Bosch

The rechargeable battery should have a sufficient charge before every ride. You should check the rechargeable battery for tight seat before every use. Push the rechargeable battery into its mount until it engages in the battery lock with an audible click.

Quick-release skewers and bolt connections

You should check all quick-release skewers and bolt connections for tight seat before every ride. Only start a ride if all fasteners are firmly closed.

Once the quick check has been completed successfully, you can start your ride. If this is not the case, please visit your **Ca Go dealer** or contact our support team in the **FAQ section at www.cagobike.com**. We are looking forward to helping you.

After a crash or accident, you may use your FS200 Vario only after your Ca Go dealer has checked it for potential damage.

The drive support is activated as soon as you push the pedal. The amount of assistance depends on the setting. Once you stop pushing the pedals or when you have reached the maximum speed of 25 km/h, the drive will switch off. The support will be reactivated automatically as soon as the speed has fallen below this threshold and you push the pedals again.

Transport of cargo

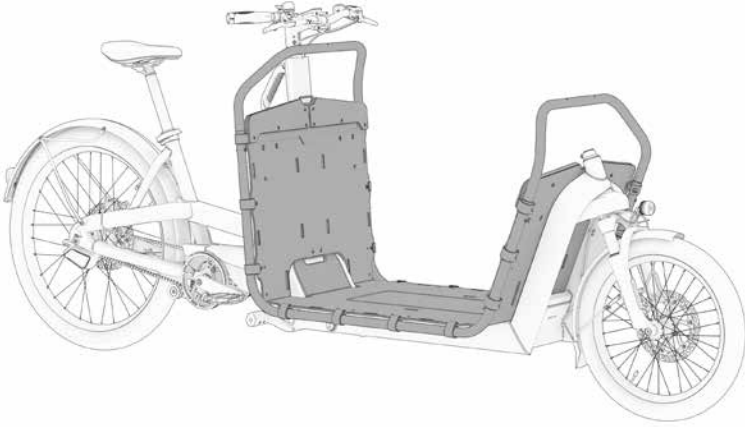


Fig. 2

The FS200 Vario has a flat cargo area. This makes it ideal for transporting various types of cargo fast and easily. The cargo area (Fig. 2) consists of an aluminium tubular frame and lightweight plastic boards, reinforced in strategic places by aluminium plates. The tubes and boards are connected by clamps. These clamps have cut-out sections, making it possible to use them for securing cargo, as well.



The cargo area of the FS200 Vario is in no way suitable for transporting persons; therefore the transport of persons on the cargo area is not permitted.

Checklist

- Is the permissible overall weight not exceeded?
- Have you made sure that no objects can come between the spokes?
- Do the tyres have the correct tyre pressure?
- Is the cargo distributed evenly?
(Heavy objects at the bottom, lighter objects at the top)
- Are lights and reflectors uncovered?

Poor weight distribution can have negative effects on handling and braking. Adapt your riding to the weight of the cargo/passengers. Cargo affects the handling characteristics of your FS200 Vario.

Among other things, the braking distance increases when you transport heavy goods and the steering can also be different.

Please adapt your riding to the handling characteristics, i.e. brake earlier, take corners with care and generally expect the steering to be more sluggish. Please transport cargo on the cargo area intended for this purpose.



When placing cargo on the bike, make sure that it does not affect the steering. This means the full pivoting angle of the handlebar must remain completely unobstructed and available. The cargo should not interfere with the movement of the wheels. The crossbars outline the cargo area that can be used safely. Moreover, cargo must never affect the unobstructed view forward.

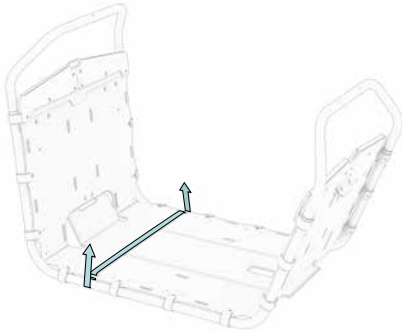
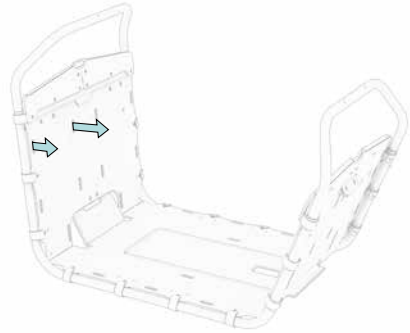
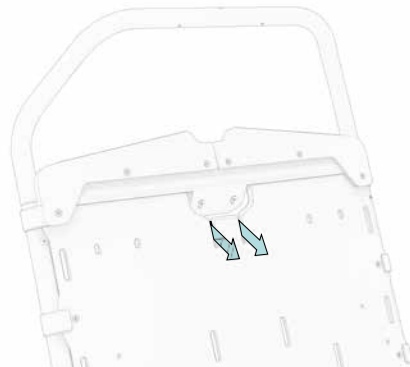


The tensile stress per belt strap must not exceed 150 N (approx. 15 kg); if this value is exceeded the aluminum frame can be damaged (plastic deformation). If the cargo is secured only to the lightweight board (Fig. 6), this limit is 100 N (approx. 10 kg). Commercially available ratchet straps can exert much higher tensile forces due to leverage. Therefore, do not use these types of straps.



When transporting objects, always make sure that the cargo is sufficiently secured to the bike. The maximum additional load on the cargo area is 70 kg. The handling characteristics of the FS200 Vario change due to the additional load. Please ensure that the load is evenly distributed.

Insufficiently secured cargo could develop a momentum of its own, which quickly results in uncontrollable driving situations. The transport of liquids, if these are able to move freely (e.g. in open troughs, half-full containers) can also lead to critical situations.

**Fig. 3****Fig. 4****Fig. 5****Fig. 6**

The aluminium frame is well-suited for fixing lashing straps and elastic cords to it. The plastic boards have cut-out sections at various locations, which allow for lashing straps to be placed all around the cargo (Figs. 3 & 4). The rear reinforcement plate also has a lead-through opening for a lashing strap (Fig. 5). An opening in the centre of the front board allows to hang in a bag or backpack (Fig. 6).



Fig. 7

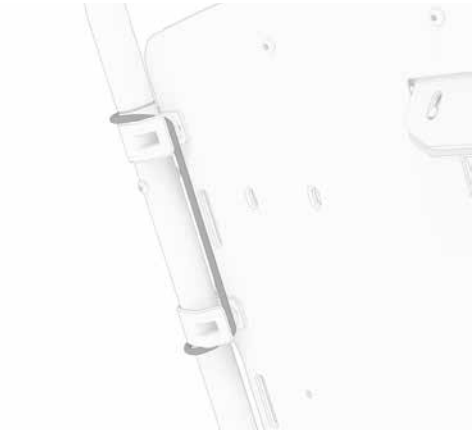


Fig. 8

Elastic cords can be hooked into the clamps. These cords can be lashed across one or several clamps (Figs. 7 and 8). This is also how the Vario's soft walls are fastened.

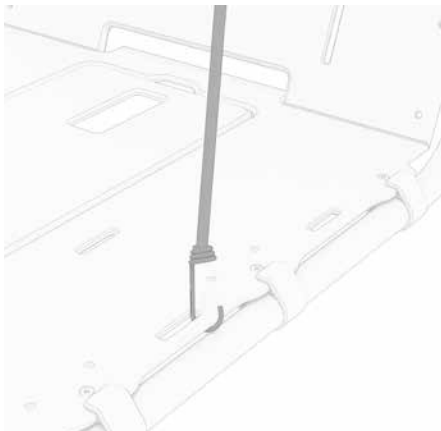


Fig. 9

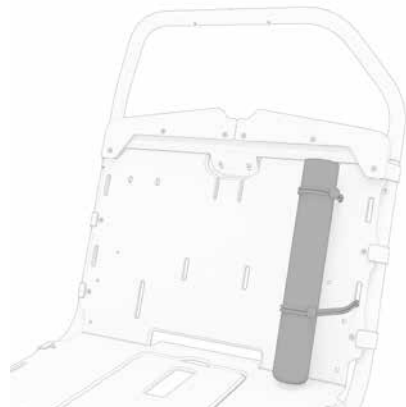


Fig. 10

All in all, the clamps and the cut-out sections in the cargo area offer various ways to secure objects individually for transport (Figs. 9 and 10).

Sitting position

Before you use your FS200 Vario for the first time, you should adjust the sitting position to suit your body size. Only then will you be able to ride safely and in comfort.

To do this, the saddle needs to be set in terms of its height, horizontal alignment and tilt, and the handlebar with the stem needs to be set in terms of height and alignment.



Due to the higher weight when loaded, the bike should allow you to reach the ground with both feet at all times. Otherwise, there is a risk of your FS200 Vario tipping over when you stop.



Never pull the seat post further out of the seat tube than is indicated by the marking for the indented maximum extension! If a maximum marking is no longer visible, the seat post must always be at least 75 mm deep in the seat tube (Fig. 11).

Saddle height

Adjust the saddle to what you estimate is the correct height. Mount your FS200 Vario. To do this, put it on the kickstand, have another person hold you or lean against a wall or railing. Position a pedal at its lowest position and place your heel on it. Your leg should be fully extended. If you now place the foot on the pedal in its proper riding position, the leg should be bent at a slight angle. You assume the correct foot position for riding by placing the widest part of the foot directly above the pedal axle.

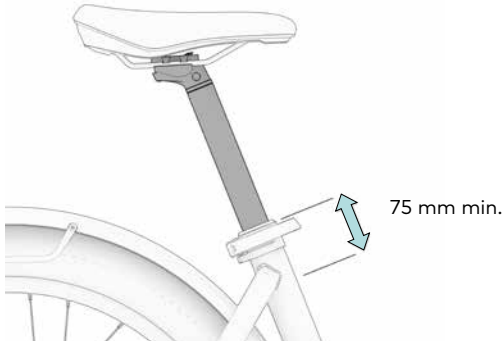


Fig. 11

The minimum saddle height depends on the size of the rider. You have to be able to ride your FS200 Vario without any negative effect on riding safety or health. The seat post must be extended only so far that it can still be safely clamped by the seat post clamp (Fig. 11).

Saddle tilt

Before you start to ride, check that the seat post and saddle are safely fastened. To do this, grab the saddle right at the tip and the back and try to rotate it. There must be no movement.



Fig. 12



To adjust a suspension seat post, read the accompanying manufacturer's operating instructions or have this work carried out by a Ca Go dealer.

After adjusting the saddle height, check and set the tilt of the saddle. The surface of the saddle should generally be level (Fig. 12). Make this adjustment after opening the saddle clamp bolts on the seat post.

Brakes

Brake levers

Before the first ride, check the position of the brake levers. On the FS200 Vario, the left-side brake lever actuates the front brake. The right-side brake lever actuates the rear brake.

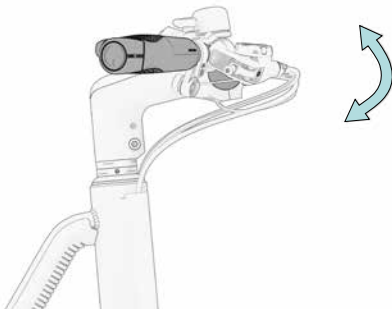


Fig. 13

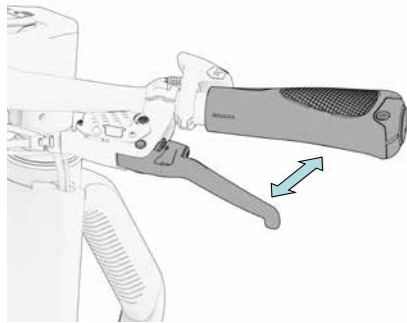


Fig. 14

To be able to grip the brake levers with smaller hands, the brake levers can be moved closer to the handlebar (Fig. 14). Adjust the brake levers so that the lever never makes contact with the handle grip even when gripped tightly.

Brake system

Your FS200 Vario is equipped with **hydraulic disk brakes**. Perform frequent functional checks of the brake system for braking action, brake pad wear and leaks. The brake pads need to be replaced when they are dirty or less than one millimetre thick. The carrier plate must never touch the rotor.

The rotor and brake calliper can heat up significantly from braking action. This is the case in particular after frequent braking or on long mountain descents. To avoid burns, never touch the brakes directly after braking.

Before your first ride, familiarise yourself with the use and action of the brakes in a safe area. You can find more information in the manufacturer's instructions.

Brake pads and rotors must not come into contact with oily liquids. Such substances reduce braking performance, in the worst case even to the point of total failure. Please read the manufacturer's instructions for more information.

Braking performance also changes in wet weather and on wet roads. Expect braking distances to be longer.

When riding down long descents or steep gradients, do not keep the brake constantly engaged. The correct and safe way to brake is to use both brakes intermittently and as evenly as possible. It is better to brake shortly and more strongly before oncoming corners or when you pick up too much speed. This will allow the brakes to cool and help preserve braking performance.

Braking in

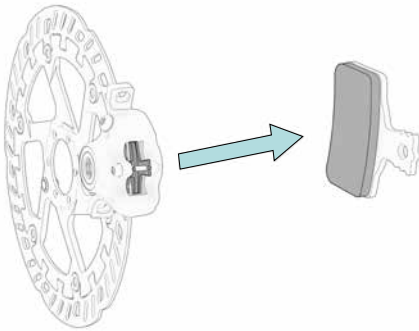
New brake pads and rotors need to be braked in carefully before their first proper use. This will optimise braking performance.

Do this as follows:

Accelerate the FS200 Vario to 25 km, then bring it to a stop by braking hard. Repeat this step approx. 20 times. For optimal results, avoid locking up the wheels.

You can find more information in the original operating instructions of the brake manufacturer enclosed to your FS200 Vario.

Wear



The minimum thickness of brake pads and rotors as required by the manufacturer must be observed. For more information, please read the accompanying manufacturer's operating instructions.

Fig. 15

Brake pads wear out from normal use. Check the condition of the brake system and brake pads at regular intervals (Fig. 15). Have brake fluids and worn brake pads checked for wear and replaced at regular intervals by the Ca Go dealer. Please make sure that rotors are clean and free from grease. You can find more information in the brake manufacturer's instructions.

Rotors are also subject to use-related wear. We recommend having the thickness of the rotors measured after the brake pads were replaced three times, and to replace the rotors in all cases once they reach the minimum thickness. The minimum rotor thickness is marked on the rotor itself.

Steam bubbles

Avoid braking permanently over prolonged periods, as can happen on long and steep descents. Otherwise, steam bubbles can occur, potentially resulting in total failure of the brake system and severe crashes and injuries.

Wheels and tyres

The wheels on your FS200 Vario are subjected to strong loads. After the first 100 to 300 km of use, a Ca Go dealer should check the wheels and true them if required. You should continue to check the wheels at regular intervals even thereafter.

Tyres and tyre pressure

The recommended tyre pressure is indicated in bar and PSI on the side wall of the tyre or on a label on the rim. Please always ride with the specified tyre pressure – depending on rider's weight and cargo.

- **Front tyre pressure: 2.0 to 4.0 bar**
- **Rear tyre pressure: 1.5 to 3.0 bar**

Hub bearings

The hub bearings need to be checked from time to time. To do this, lift the wheel off the ground and rotate it by hand.

If the wheel keeps running only for a short time and non-concentrically, and if it stops suddenly, the bearing may be defective.

To check if the hub bearing is loose, pull the wheel in the rear drop-out or fork to the right and left. While doing so, have a second person hold the handlebar.

If you can move the wheel slightly to the side in the bearing or if the wheel is hard to turn, the hub bearings need to be serviced by a Ca Go dealer.

Rims, true running

The rims need to be checked for true running from time to time. To do this, lift the wheel off the ground and rotate it by hand. Observe if the rim is running true. If the run is visibly out of true, the wheel should be trued by an expert.

The rims are highly loaded and safety-relevant components. They wear out from normal use. If you can see damage, do not continue to ride with this rim. Have it checked and replaced if needed by a Ca Go dealer. A rim weakened by wear can cause accidents.

The use of non-original or improper spare parts can lead to a loss of function. Tyres with poor ground adhesion or safety of use, brake pads with poor friction, as well as incorrectly fitted or poorly designed lightweight construction parts can cause accidents. The same applies in cases of improper assembly.

Mending a puncture: In the event of a puncture, contact a Ca Go dealer or a specialist workshop. In particular, removing the drive wheel and disconnecting the connection to the motor requires technical knowledge and special tools. If you still want to perform the repair job yourself, get a proper instruction by an expert first, e.g. a Ca Go dealer.

Belt drive

The automatic tensioner pulley behind the crank saves frequent checks and re-tensioning of the belt and is almost maintenance-free, with the exception of cleaning and lubricating moving parts from time to time.

Checklist

To ensure a long service life for the system, we recommend

- **cleaning the belt with water or a hand brush following rides through mud or dirt. Remaining dirt can lead to increased wear or a noisy drive train (e.g. squeaking or creaking).**
- **checking your belt drive for damage, deformed material or fissures every time you clean it.**
- **checking the belt drive sprockets and the belt tension.**

If you notice any changes, have your Ca Go dealer repair them immediately.

The belt drive can catch wide clothes and seize, resulting in dangerous situations. When cleaning it, there is a risk of getting fingers caught between the belt and the belt drive sprocket or tensioner pulleys.

Gears

In the automatic mode set by us in the factory, you push the pedals and the enviolo AUTOMATiQ gear system changes gears automatically.

You can find information on the setting options for the Bosch Kiox system and the enviolo AUTOMATiQ gear system in the manufacturers' original operating instructions under www.cagobike.com/anleitungen.

We recommend that you have the configuration or switching of the gear system done by your Ca Go dealer.

Gear systems are safety-relevant components. Read the accompanying manufacturer's instructions and familiarise yourself with using the gear system of your FS200 Vario before your first ride. If you have questions on adjusting and using the gears, you can always contact the Ca Go team online in our FAQ area.

Alternatively, a Ca Go dealer will be happy to help you.

Frame

If your FS200 Vario is stolen, it can be identified by the frame number and the scannable code. The documentation you receive with your FS200 Vario contains a section where you can enter the frame number.

You should never ride with a deformed or broken frame. Defective parts must be replaced by a Ca Go dealer. Continue to use your FS200 Vario only after such parts have been replaced. If defects of the frame or components are not repaired, there is a high risk of accidents. If your FS200 Vario does not run completely straight, this may be due to a warped frame or fork. Please contact a Ca Go dealer to have the frame and fork checked.

The stay behind the battery safe has a sticker with the number, as well as a QR code, which is well visible when the battery safe is open. Additionally, the frame number is embossed on the side of the motor housing.

Suspension

The initial tension of the suspension fork can be configured, within certain limits, to suit the weight of the vehicle and the intended type of use. Your Ca Go dealer can do that for you. They can also explain to you how to adjust the suspension yourself before transporting cargo. As an alternative, you can always find help in the FAQ section.

You can find more details in the component instructions enclosed with your FS200 Vario.

The adjustment of any suspension element must adhere to the operating instructions of the manufacturer. The general rule is that the suspension element should work significantly when riding over uneven surfaces, but without 'bottoming out', i.e. without moving down all the way until its stop.

Kickstand

The double kickstand stabilises your FS200 Vario when loading it.

To extend the kickstand, place one foot on a cross-piece of the kickstand and push it toward the ground. Grab the handlebar grip and pull the bike backward. Leave the foot on the cross-piece.

To fold the kickstand back in, place a foot on the cross-piece on the ground and push the bike forward. The kickstand will fold back into its original position.

Bosch Kiox

Your FS200 Vario is equipped with a Bosch Kiox display. This section is based on the instructions by Bosch and provides an overview of its use.

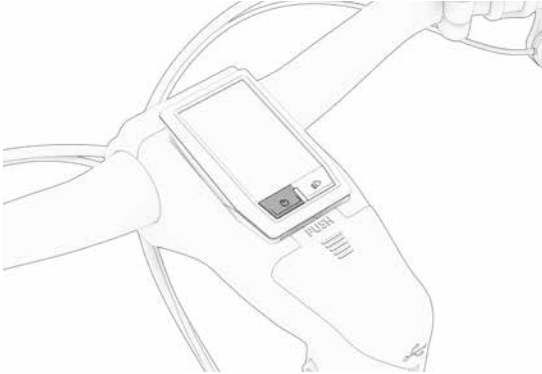


Fig. 16

Switching the Kiox on and off

To switch the electric system on, press the On/Off button on the display (Fig. 16). To switch it off, press and hold the same button until the system has switched off.

Display and control unit

Your FS200 Vario is equipped with a board computer including display and an external control unit. It provides the option to connect the display with a smartphone.

Levels of assistance

You can use the control unit to select how strongly the drive is to support you while riding. You can always change the level of assistance during the ride. For individual settings and using the board computer, please observe the operating instructions of the manufacturer.

Checklist

The following conditions have to be met in order to activate and use your FS200 Vario:

- The display must be mounted safely in its holder.
- Make sure that the contacts on the back side of the Kiox display are in good contact with the holder on the bike.
- Only if the speed is displayed on the display does the Kiox have a connection with your FS200 Vario.
- The rechargeable battery must have a sufficient charge.
- The rechargeable battery must be mounted safely in its mount.
- Motor, control unit and rechargeable battery must all be connected correctly.

Lighting system

We recommend that you leave the 'constant light' option activated; it has been set by us in the factory. If you wish, you can also switch the light of your FS200 Vario on and off from the display. To do this, your bike needs to be programmed accordingly by your Ca Go dealer.

If the 'constant light' option is not activated, you can switch the front and rear lights on and off with the 'Light On/Off' button on your display.

When the light is switched on, the 'riding light' icon in the status bar of the display is lit up. Switching the bike lights on and off will not affect the display's background light.

The high beam light can be switched on and off with the high beam button on the bike (Fig. 17).

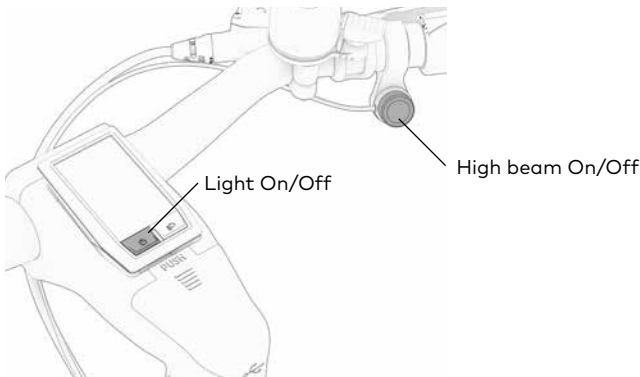


Fig. 17

High beam On/Off

You are not allowed to use your FS200 Vario without a functioning lighting system. Therefore, make sure at all times to ride with sufficient charge in the rechargeable battery. Otherwise, you and your passengers will be difficult to see in dark conditions or you will yourself have difficulty recognising obstacles in front of you.

The high beam light can be switched on and off by pushing the button with the light icon on the right-hand side of the handlebar.

Adjusting the front light

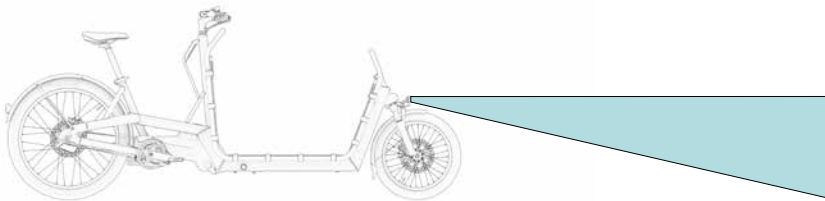


Fig. 18

The lamp must be adjusted so that it does not blind other road users (Fig. 18). Clean the reflectors and lamps of the lighting system at regular intervals. This can be done using warm water and dishwashing liquid.

Rechargeable battery

The battery mounts of your FS200 Vario are integrated in the lockable battery safe. This safe is located below the detachable EPP cover on the floor of the transport box. Your FS200 Vario is 'DualBattery-ready' by default and thus provides the option of using a second Bosch PowerTube battery (optional). When the battery/batteries is/are mounted in the battery safe, it/they can be charged via the charging port in the frame.

As an alternative, the rechargeable battery can be detached with ease and can then be charged at room temperature using the supplied charger. The operating temperature range of your rechargeable battery is -5 to +40 °C. The storage temperature range is +10 to +40 °C.

If the FS200 Vario is delivered with only one rechargeable battery, this battery must be mounted on the left position. The right position is occupied by a blanking plug to protect the unused contacts. If the single rechargeable battery is mounted in the right position, it will not be charged correctly. If a second rechargeable battery is to be retrofitted, the blanking plug needs to be removed first.



To prevent damage or destruction, the rechargeable battery must be charged at least every 3 months to approx. 60 %.

You can find more details and specifications online in the FAQ section and in the battery manufacturer's operating instructions.

Checklist

- Has the rechargeable battery clicked into its mount properly?
- Ensure that the battery is never discharged completely. Always recharge it even after using it for a only a short time. If the rechargeable battery remains uncharged for a longer time, this may reduce its capacity.
- Do not charge the battery longer than is recommended by the manufacturer. After the charging process has completed, and as long as the charger is not used, the charger should be disconnected from the battery and the grid.

Removing the rechargeable battery

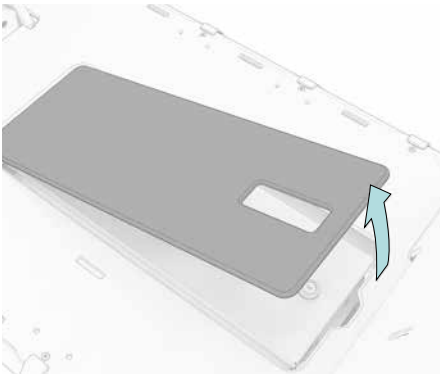


Fig. 19

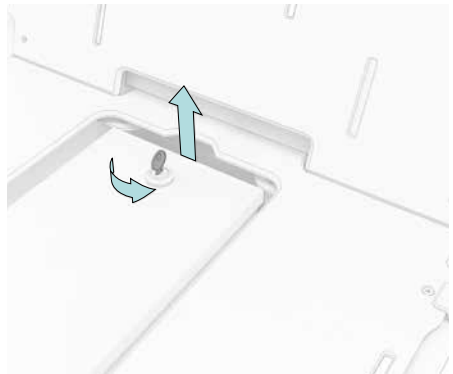
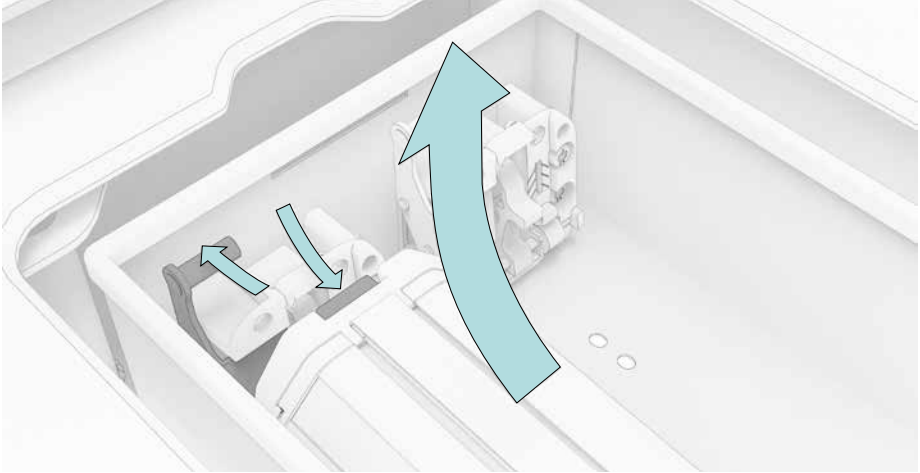


Fig. 20

1. Reach into the recess of the cover plate and remove the plate (Fig. 19).
2. Open the lock and fold up the cover of the battery safe (Fig 20).

**Fig. 21**

3. Unlock the rechargeable battery. To do this, first pull release lever 1 toward the rechargeable battery and hold the lever in this position (Fig 21).
4. Push down release lever 2. The rechargeable battery will be released from the mount.
5. Pull the rechargeable battery straight up from the mount. Hold it with both hands. The rechargeable battery is heavy.

Charging process

1. First connect the plug of the charging cable into the charging port on the rechargeable battery (Fig. 22) and plug the charger into a power outlet.
2. The five green LEDs of the charge state indicator indicate how far the battery is charged, with each LED corresponding to approx. 20 % of the overall charging capacity. If the capacity of the rechargeable battery is below 5 %, all LEDs of the charge state indicator on the rechargeable battery go out.

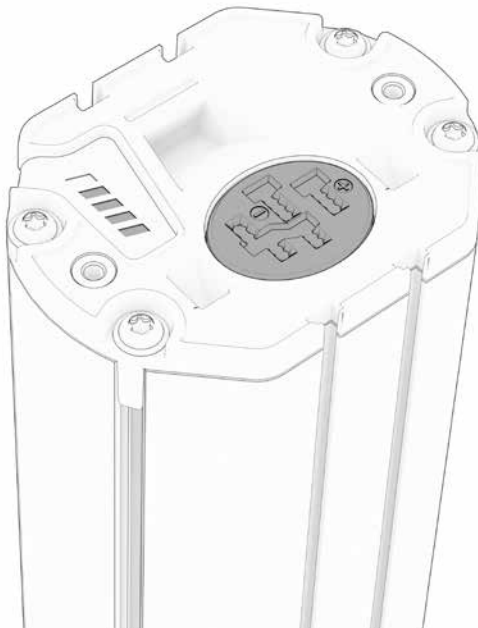


Fig. 22

Mounting the rechargeable battery

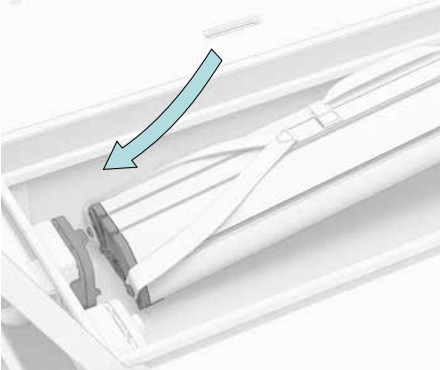


Fig. 23

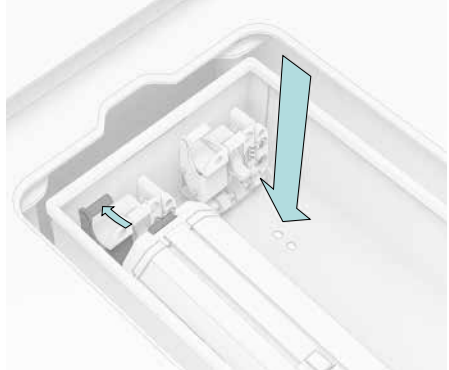


Fig. 24

1. Carefully place the back side of the rechargeable battery on the plug in the battery housing (Fig. 23).
2. Pull release lever 1 toward the rechargeable battery. Guide the rechargeable battery into the mount until it clicks in with an audible click (Fig. 24).
3. Close the cover of the battery safe and put the cover plate back in. Close the cover plate.

Charging when the battery is mounted

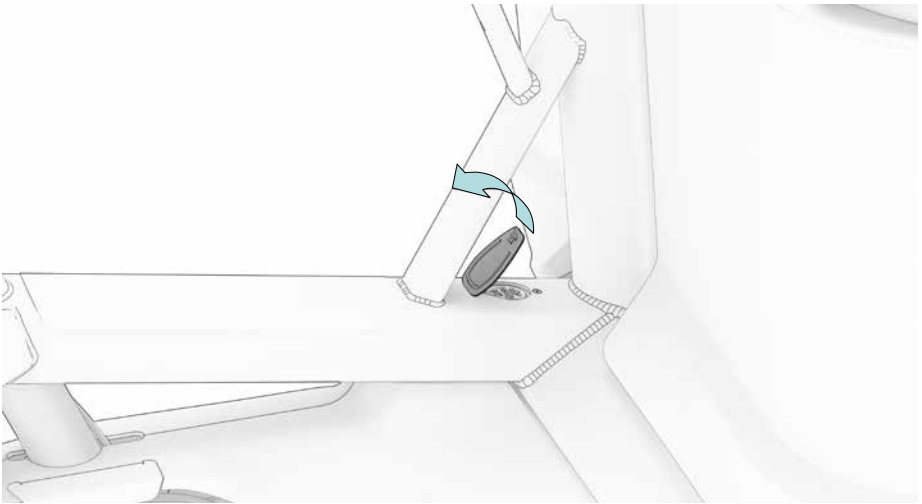


Fig. 25

1. Connect the charger to a power outlet.
2. Open the dust cap of the charging port (Fig. 25) and connect the cable of the charger to the charging port.
3. After charging, disconnect the bike from the charger, then disconnect the charger from the power outlet.
4. Switch on the electric system. You can see the current charge state on the display.

If two Bosch PowerTubes (DualBattery) are mounted, both rechargeable batteries can be charged. First, both batteries are charged sequentially to 80–90 % each, then both batteries are charged simultaneously to full capacity.

Safety notices for rechargeable battery and charging

To ensure the correct and safe operation of the electric drive, the drive must be checked by a Ca Go dealer as part of regular inspections. Remove the rechargeable battery from your FS200 Vario immediately if you observe any damage to the electric system. In case of questions or problems, please contact a Ca Go dealer or the Ca Go service team.

Always remove the rechargeable battery before performing assembly, maintenance or other types of work on your FS200 Vario, or before transporting it. Any unintended activation of the electric system can lead to injury.

Please always observe the notices on the charger before starting to charge the rechargeable battery. You may only use original Bosch parts, such as approved original chargers. Please familiarise yourself with all instructions on the charger label and observe these at all times.

Never open the battery or the charger. Opening them can result in a short-circuit. Also, you will lose any warranty claims if the battery is opened. The rechargeable battery should always be protected from mechanical damage, heat (constant sun radiation), fire and immersion in water. Fire and explosion hazard! If the rechargeable battery is damaged or used improperly, it can discharge toxic fumes. Keep children away from the rechargeable battery!

Never charge or continue to use a defective rechargeable battery.

Never cover the charger while it is in use. Otherwise there is a risk of short-circuiting or fire as the charger warms up during the charging process.

Wear

The service life of the rechargeable battery depends on various factors:

- **Number of recharge cycles**
- **Age of the rechargeable battery**
- **Storage and usage conditions**

Rechargeable batteries are subject to ageing. This means: Even if you do not use the rechargeable battery, it will lose some of its capacity over time. Using Bosch DiagnosticTools, your Ca Go dealer can check the condition of the rechargeable battery and determine the number of recharge cycles.

You can find information on servicing the rechargeable battery in the original operating instructions by Bosch on the Ca Go Bike website under <https://www.cagobike.com/en/manuals>.

The rechargeable battery has a specific service life. During this time, the battery's capacity decreases, as consequently does the range of your FS200 Vario depending on the motor support level used. This does not constitute a defect. When the rechargeable battery has reached the end of its service life, you should replace it, although you can continue to use it if its range is still sufficient for you.

Range

You will get the most out of the rechargeable battery when you ride with low-level support in warm temperatures. The range can depend on your style of riding as well as the terrain. Temperatures outside are another major factor.

The range of your FS200 Vario will be reduced in cold temperatures. This is a normal physical process which does not constitute a defect. The full capacity will become available again when you use the rechargeable battery in warmer weather.

Nevertheless, please plan shorter routes or use a lower level of assistance during the winter months.

We recommend that you store and charge the rechargeable battery at room temperature overnight during cold periods and start riding immediately after mounting the battery in the bike. The current drain will warm the battery, and your e-bike will attain a good range even in cold weather.

Transport

Transport on trains

The regulations are largely the same as for transporting a normal bicycle. We recommend transporting the rechargeable battery separately during the whole trip.

With regard to regional trains, rules for the transport of cargo bikes vary. Please consult the train operator beforehand.

Transport on airplanes

Lithium-ion batteries are usually not allowed for transport on airplanes as they are deemed dangerous goods. Most airlines refuse to take them on board.

If you plan to transport your FS200 Vario by airplane, please consult the airline beforehand in all cases. Also, ask the airline about its rules regarding the transport of sports equipment/bicycles/electric cargo bikes.

Transport by car

You can transport your FS200 Vario by car only if the car offers sufficient cargo space or if an appropriate trailer is available. Before the transport, remove the rechargeable battery and transport it separately. Adapt your driving to the load of your car.

Mount your FS200 Vario carefully to the car to prevent it coming loose from its mount/trailer.

Inspections

Jobs you can safely do yourself are highlighted in **blue**. The following inspections must be observed for safe long-term functioning and to maintain warranty claims:

Intervals and inspections

First inspection after:

- 100 to 300 km of riding, or
- 5 to 15 hours of riding, or
- 4 to 6 weeks, or
- no later than 3 months following the purchase

Check:

- **Tyres and wheels**
- Handlebar
- Seat post
- Cranks
- Pedals
- Saddle
- All mounting screws

Adjustment of:

- Headset
- Brakes
- Gears
- Suspension elements

Check every 2000 km:

- Drive belt
- Brake pads for wear
- Belt drive sprockets
- Rotor thickness
- Hubs
- Headset
- Brakes
- Pedals
- Gears
- Bolts and nuts

Clean:

- Drive belt
- Belt drive sprockets

Clean and service after every ride in the wet:

- Belt drive sprockets
- Cogs

Checklist

- Clean your bike and check it for damage after every ride.
- Always have inspections performed by a specialised dealer. We recommend using one of our Ca Go dealers. You can find our network of dealers at www.cagobike.com/en/dealer-search
- Service moving parts according to the manufacturers' instructions.
- Have paint damage repaired.
- Have defective and worn parts replaced.

Like all mechanical components, your FS200 Vario is subject to wear and high mechanical stress. Different materials and components can react differently to wear and continuous loads. If the planned service life of a component is exceeded, such component can fail suddenly and possibly lead to injury for the rider. Any type of tears, grooves or discolouration in highly stressed areas indicates that the component has reached the end of its useful life and should be replaced.

As a general rule, the use of non-original or improper spare parts can lead to a loss of function. Tyres with poor ground adhesion or safety of use, brake pads with poor friction, as well as incorrectly fitted or poorly designed lightweight construction parts can cause accidents. The same applies in cases of improper assembly.

To be sure that your bike is in the best working condition, it needs to be serviced at regular intervals. Leave work on the FS200 Vario to the Ca Go dealer. You can find information on components and their care and servicing in the manufacturers' instructions and websites.

Ask the Ca Go team online in the FAQ section for suitable lubricants and care products. Alternatively, you can ask a Ca Go dealer to assist you. Not all materials are suitable for all purposes. The wrong lubricants can lead to damage and loss of function!

Tightening torques for bolt connections

General tightening torques for bolt connections

Bolts with grade stamp				
Dimensions	8.8	10.9	12.9	Unit
M4	2.7	3.8	4.6	Nm
M5	5.5	8.0	9.5	Nm
M6	9.5	13.0	16.0	Nm
M8	23.0	32.0	39.0	Nm
M10	46.0	64.0	77.0	Nm

The tightening torques in this manual are specified in Nm. Never rely solely on your gut feeling: 'tight' is not always 'tight'.

A torque wrench is the only way to ensure that bolts are tightened to the correct torque. Therefore, always use such a wrench and observe the torque values specified in this manual.

Bolts that are done too tight or not tight enough can lead to material fracture. These can lead to crashes with severe injuries.

Technical data

Frame type	Long John with suspension fork
Deactivation of drive support	at 25 km/h
Power	250W, 36V
Sound pressure level	<70 dB(A) at ear height of rider
Rechargeable battery	625 Wh Lithium-ion
Length	2.70m
Width	0.70m
Wheelbase	206.50m
Unladen weight	approx. 55 kg
Max. additional load on the cargo area	70 kg
Max. permissible overall weight	225 kg
Cargo volume	370 l (clearance between crossbars)
Length of cargo area floor	0.70m
Tyre on front wheel	55-406 (20 × 2.15)
Tyre on rear wheel	70-584 (27.5 × 2.75)

General notes on care

Your FS200 Vario should have a long and happy service life. To make sure of that, here are a few things you should observe. If you require more help, please contact us online in the FAQ section.

Washing frame and seats

The best way to wash your FS200 Vario is with clear water. The frame is best polished with a microfibre cloth. Use a wet cloth to wipe the saddle. For more severe soiling, you may also use soap-free cleaning agents, such as window cleaner, provided these are not too aggressive.

Care for the suspension fork

The suspension fork, the stanchion tubes in particular, needs a bit more care. The fork should be cleaned with clear water, there should be no residues of road dirt left on the stanchion tubes.

Slush that carries de-icing salt is particularly problematic. If the stanchion tubes are clean, they can be cared for with an oily cloth to prevent premature wear and corrosion.



Warning: Never touch the rotor with the oily cloth.

Winter storage

The best location to store your FS200 Vario is in a dry room. During longer storage periods, the inner tubes may lose some air. This may damage the tyre in the long term. Therefore, check the tyre pressure at regular intervals. Furthermore, you should charge the rechargeable battery to approx. 60 % for winter storage and thereafter recharge it to 60 % every three months during the storage period.

- Before you undertake care or service work on your FS200 Vario, please remove the rechargeable battery. Any unintended activation of the electric system can lead to injury.
- Never use a pressure washer! Cleaning with any high-pressure device can damage the electric system. Due to the high pressure, cleaning liquid can enter even into sealed parts and cause damage to them.
- Always make sure to clean the Vario's cargo area without using chemicals (no nail polish remover, oven cleaner or similar substances). In most cases, water is completely sufficient to clean the bike.

Tips for the environment/disposal

General care products and cleaning agents

When caring for and cleaning your FS200 Vario, make sure to protect the environment. Therefore, use biodegradable cleaning agents where possible for care and cleaning. Make sure that cleaning agents do not enter the sewage system.

Brake cleaners and lubricants

Handle brake cleaners and lubricants in the same way as general care products and cleaning agents.

Tyres and inner tubes

Tyres and inner tubes are not residual or household waste. They must be disposed of at a recycling centre in your vicinity.

Rechargeable batteries

The rechargeable batteries of the FS200 Vario must be treated as dangerous goods and are therefore subject to special labelling requirements. For questions concerning the disposal of the rechargeable battery, please contact a Ca Go dealer or your Ca Go team online in the FAQ section.

Foamlight® cargo area

The Vario's cargo area consists of an aluminium tubular frame and lightweight plastic boards reinforced in strategic places by aluminium plates. All materials are recyclable.

Statutory warranty / guarantee

The legal statutory warranty applies. You can find more details on the warranty on our website: www.cagobike.com/en/warranty

Export to the USA and Canada is not permitted (product liability)!

Service

If you have questions concerning this user manual, please contact your Ca Go dealer or your Ca Go service team.



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