

COMMENCAL

E-BIKE - AVINOX

WELCOME

We thank you for your confidence in us and we wish you many good times to come with your new COMMENCAL bike.

This manual will help you to get to know your bike and includes some useful information and detail.

We recommend that you read it with care.

MANUAL CONTENT

In this manual, you will find all the necessary information to assemble, set up and maintain your bike correctly. You will also find the different security warnings and the warranty terms and conditions. ■

IN CASE OF PROBLEM

If you encounter any problems during the assembly of your bike or have any other questions, don't hesitate to contact us:

- by e-mail : customerservice@commencal.com
- by phone : + 376 73 74 75



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USEFUL INFO

LABELLED DIAGRAM

Parts designation

FULL BIKE

- 01 - Frame
- 02 - Fork
- 03 - Wheel
- 04 - Disc
- 05 - Brake caliper
- 06 - Brake lever
- 07 - Handlebar
- 08 - Stem
- 09 - Seat clamp
- 10 - Seatpost
- 11 - Shifter
- 12 - Tire
- 13 - Rear shock
- 14 - Crank
- 15 - Chain guide
- 16 - Chainring
- 17 - Chain
- 18 - Derailleur
- 19 - Saddle
- 20 - Grip

FRAME

Front triangle

- a1 - Top tube
- a2 - Down tube
- a3 - Seat tube

Rear triangle

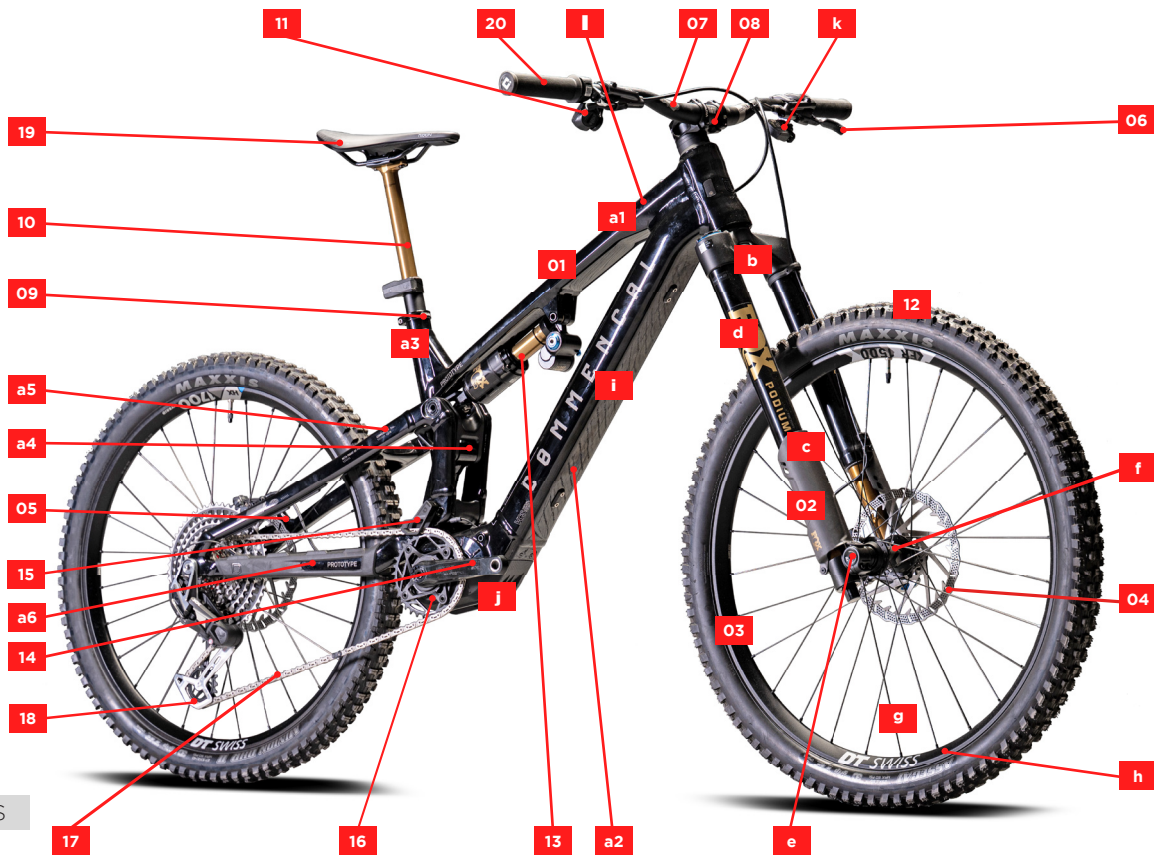
- a4 - Rocker/Chassis
- a5 - Seatstay
- a6 - Chainstay

FORK AND WHEELS

- | | |
|---------------|-----------|
| b - Crown | f - Hub |
| c - Stanchion | g - Spoke |
| d - Lower | h - Rim |
| e - Axle | |

SPECIFIC ELECTRIC PARTS

- | | |
|-------------|-------------|
| i - Battery | k - Shifter |
| j - Motor | l - Display |



USEFUL INFO

ABOUT E-BIKES

ELECTRIC BIKES (E-BIKES)

A pedal assisted e-bike enables you to reach a higher speed than a standard bike.

The speed is dependant on the import country of your product specifically.

Please be aware that the motor will only provide assistance when you are pedalling. The system provides you with 3 modes of assistance and a walk mode. (See AVINOX User Manual for more detail).

The META Power is a bike designed to ride on gravel roads, moderate tracks and uneven tracks, some steep or technical tracks will require a higher level of bike handling skill.

If you don't respect these instructions, you risk to damage your bike or to hurt yourself.

RECOMMENDATIONS

You must remove the battery in case of :

- Performing maintenance/ changing components
- Transport

Use your e-bike only in the range of temperatures: -10°C to 50°C.

Check there is no water on the battery mount electrical connections before installing the battery.

Don't charge your battery in a wet environment. You should charge your battery in an environment which is in the following temperature range 0°C to 40°C.

Keep away from heat sources and direct sun light. For example inside a vehicle on a hot day, etc...

Although the system is supposed to be waterproof, you should not submerge the system or bike in water. Don't submerge the battery in cold water or sea water, make sure the battery electrical connections stay dry.

Don't submit your battery to violent impacts, if your battery is damaged or scratched from impact, we recommend that you do not use it anymore and seek replacement.

If you are to charge your battery when installed on the bike, take care not to move the bike or try to disconnect the battery during the charging process. Avoid subjecting the battery charging port or the charger plug to any moisture. Check that your battery is always firmly held in the battery mounts by the lock.

Beware of finger entrapment hazards when performing maintenance operation on the chain and sprockets.



-The AVINOX User Manual will be provided in the accessory box with your bike. It is necessary to read this more detail.

-Warning, all inappropriate use (including maintenance) of the electrical system can causes irreversable consequences.



USEFUL INFO

ABOUT E-BIKES

WEIGHT AND CAPACITY OF THE BIKE

The META Power is an e-bike, which is understandably heavier than a regular bike. The weight of the bike is between 20 and 25Kg. The difference is due to the different sizes and models available in the range.

To use this bike, your riding weight should not exceed (inc. helmet, bag, protection...) the weight of 120Kg.

COMMENCAL Bicycles are not necessarily designed for use with a luggage rack and/or child seat and/or a trailer. If you want to use or adapt one of the aforementioned, please refer to the corresponding manufacturer's website for all the details, compatibility and maintenance.

MODIFYING THE ASSISTANCE SETTINGS

We remind you that every modification to the system, or other modification which modifies the speed of the bike, is strictly prohibited.

Any change to the speed can change the legal categorisation of the bike. This can result in your bike not being categorised as an e-bike anymore. This will void the warranty guarantee of your bike.

Please check the precautions to be taken when riding. We also invite you to read the component manufacturer's manuals to find out about the various settings and safety instructions

ONLINE INSTRUCTIONS

This manual provides you with all the necessary and concise information to assemble and maintain your bike. You can find this manual on the COMMENCAL Bicycles website. You can also find more information about your bike, some tutorials, videos and much more on the COMMENCAL Bicycles website!

COMMENCAL decline all responsibility in the event of unclamping or any changes to components if they do not meet the original specifications. It is completely illegal to modify the maximum speed by any means, like for example, software and/or components, etc.)

WEBSITE

www.commencal-store.com

MANUAL

www.commencal-store.com/owners_manual

TUTORIALS VIDEOS

tech.commencal.com/tech/



The A-weighted emission sound pressure level at the driver ears is less than 70 dB(A).



We suggest that you read all the relevant manufacturer manuals for the other components provided on the bike to know the relevant security warnings and set-up.



ASSEMBLY

ACCESSORIES PROVIDED

CONTENTS OF THE ACCESSORY BOX

- Security kit (lights, reflectors, bell)
- Accessories specific to the AVINOX (User manual and charger).
- Component accessories (manuals and spare parts, etc...).
- Pedals, Seatstay protector



Keep your battery box for the event of storage or logistics. The box has all the necessary information related to the transport of lithium batteries.



ASSEMBLY

TOOLS AND TORQUE TABLE

TOOL LIST

Find below the contents of the optional tool kit. The different logos on the diagram will help you to understand what tools are needed for every assembly step.

- 1x MULTI-TOOL

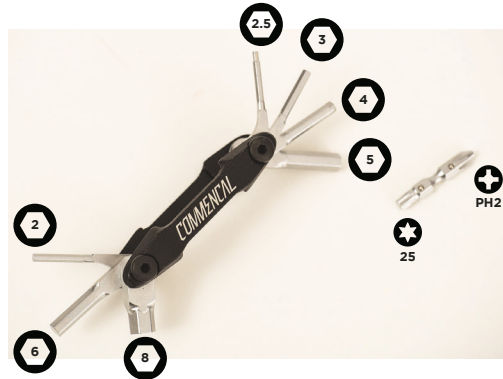
- Allen keys T.2 / 2,5 / 3 / 4 / 5 / 6 / 8 mm
- Torx key T.25
- Cross head screwdriver PH2

Torque tightening values indicated in the instructions for fitting the saddle onto the seat post.

- 1x HIGH PRESSURE PUMP

- for your fork and rear shock, if air sprung.

Torque tightening indicated for fixing the handlebar and stem.



TORQUE TO RESPECT

Stem - Steerer Tube	5,5N.m
Stem - Handlebar Cap	5,5N.m
Brake Caliper	8-10N.m
Speed Sensor	2,5-4Nm
Derailleur	8-10N.m
Brake Lever	2,5-4Nm
Cassette	40N.m
Seat Clamp	5-6N.m
Headset	3N.m
Chainring	9N.m
Grip	2,5-4Nm
Pedals	38N.m
Disc	6N.m



For frame contact system, please refer to relevant bolt marking for torque information.



ASSEMBLY

ASSEMBLY STEPS

STEP 1

Unbox the bike vertically (lift it by the rear wheel and fork).



STEP 2

Place the bike on the floor. Rotate the fork so that the bike is stable.



STEP 3

Remove any protective packaging.



When unpacking or moving the handlebar, take care not to damage the cables or hoses.



ASSEMBLY

ASSEMBLY STEPS

STEP 4

Unscrew the front cover of the stem.



STEP 5

Assemble and align the handlebar using the laser marking (you can also set your preferred angle).



STEP 6

Tighten the top two screws to bring the clamps into contact and to torque. Then tighten the screws at the bottom.



STEP 7

Route the electrical wire through the plastic clip.



ASSEMBLY

ASSEMBLY STEPS

STEP 8

Remove the front axle and apply grease along the shaft and thread.



STEP 9 a

Assemble the front wheel into the fork. Install the front axle.



STEP 9 b

For quick release axles, tighten and close it vertically. Refer to the manufacturer manual if the lever does not align vertically to change the setting.



STEP 10

Align the stem with the front wheel and ensure there is no play in the headset (see page 44). After, tighten the stem collar screws.



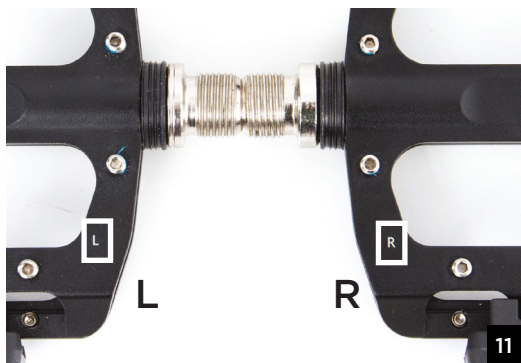
ASSEMBLAGE

ÉTAPES DE MONTAGE

STEP 11

Identify the left and right pedal.

This is clearly shown by a «L» and «R» on the pedal axle



STEP 12

Grease both pedal axle threads.



STEP 13

Tighten the right side pedal as shown in the photo.

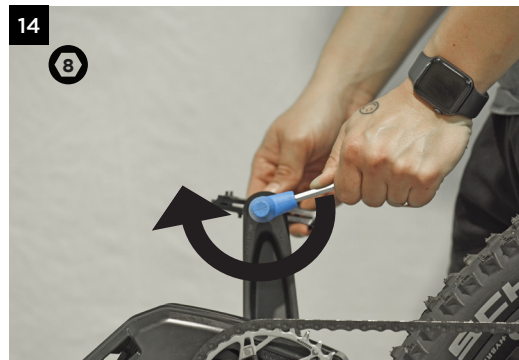


The left side pedal (L) has a reverse thread (anti-clockwise) and the right side pedal (R) has a classic thread (clockwise).



Charge the battery to 100% before turning it on.

Once charged, you can turn on the battery, making sure not to place your feet on the pedals.



STEP 14

Tighten the left side pedal as shown in the photo.



SET-UP

SEAT POST AND SADDLE

SADDLE HEIGHT



To adjust your saddle height, untighten the seat clamp (by hand or with the allen key), adjust the height and tighten the seat clamp.



To set the correct height, sit on your bike and put one pedal as low as possible: your leg should be straight.



Warning, the maximum insertion line should not be visible.

SADDLE POSITION



For your health and comfort, it is important to correctly orientate your saddle. An inappropriate setting could result in discomfort or pain when using your bike.

To set your saddle position, unscrew bolts (A and B). First, set the lateral position along the rails to your preference. Second, tighten to achieve a horizontal orientation.



Your dropper seat should be actuated to complete this set-up.



SET-UP

BRAKES

CALIPER ALIGNMENT



To align the caliper to the disc, unscrew the two bolts by half a turn so it is fairly loose. Turn the wheel and press the corresponding brake lever.

Whilst holding the brake lever, tighten the caliper bolts.

Check that your wheel turns without causing any rubbing (or very little). However, repeat the process if it is not satisfactory.



You must break in your pads before achieving good performance from the brake. You must actuate your brakes 20 to 30 times to slow down from 30 km/h to 5 km/h to break

in your pads sufficiently. Brake as hard as possible without stopping the wheel. It is normal to have friction between the disc and the pads before the system has been fully broken in.



ADJUST YOUR BRAKE LEVER REACH



Warning, wet conditions can increase braking distance.

You can adjust the reach of the brake lever. simply turn the fine adjuster found on the brake lever. This can also be in the form of an allen key bolt.



The left brake lever operates the front brake. The right brake lever operates the rear brake. incase of doubt, check which caliper is connected to which lever. (exction: UK, Australia, New Zealand and Japan use an opposite brake configuration).

SET-UP

AIR PRESSURES

FORK AND SHOCK



To know the correct pressure and settings, please consult the respective manufacturers manual. For coil shocks, tighten the spring to set your SAG.

Stand on your bike fully equipped as if you were going riding. Your suspension should compress to 25%.

TIRE PRESSURES

To know the correct pressure for your tires, look at the manufacturers recommendations found on the side walls of the tires. This will include the maximum and minimum pressure.



It is very important to set up your suspension corresponding to your weight. Regulate the pressure of the suspension with the high pressure pump.



We recommend that you check your tire pressure before every ride.

The air pressure will have a significant impact on the behaviour of the bike. We recommend that you adjust your pressure in function of your weight, riding style and terrain.



Warning, you must never exceed pressure limits (max/min). You risk causing irreversible damage to your bike.

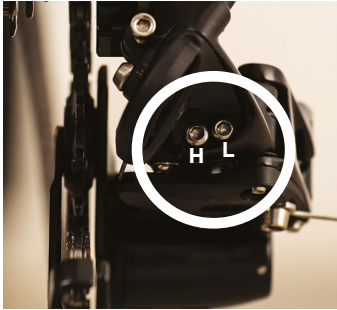
If you can not achieve the correct SAG setting on your coil shock, you should change the coil.



SET-UP

DERAILLEUR

DERAILLEUR POSITION SET UP



The limit screws prevent your chain from exceeding the limits of the cassette. You have one screw controlling the higher limit (H) and one screw for the lower limit (L). The higher limit corresponds to the smallest cassette ring while the lower limit corresponds to the biggest cassette ring.

Adjust so that you achieve the correct limitation without compromising gear range.



To ensure the correct setting you must be sure that:

- When your chain is on the biggest gear, align the center of the upper guide pulley with the outboard edge of the smallest cog.
- When your chain is on the lowest gear, the derailleur pulley should align with the largest cassette ring.

CABLE TENSION



Once your limit screws are set, you have to adjust the cable tensioner. Try shifting through the gears:

- If you have difficulty shifting from smaller to bigger rings then loosen gradually (turn anti-clockwise) the cable tensioner to tighten the cable.
- If you have difficulty shifting from bigger to smaller rings then tighten gradually (turn clockwise) the cable tensioner to untighten the cable.



Make sure your derailleur hanger is not bent.

Read the manufacturer's manual to learn more about specific settings.

If you have difficulties with your settings, please seek advice from professional.



SET-UP

OTHER

SET THE HANDLEBAR HEIGHT



If preferred, you can adjust your handlebar height by modifying the spacer stack. To do so, unscrew and remove the topcap. Then, untighten the stem bolts. Remove the stem and adjust the spacer stack to change height.



Do not remove or add spacers to the stack



CONTROLS POSITION



When you have finished assembling your bike, you can adjust your controls and grips position. These settings are personal you are free to set them to your preference.



Respect the torques provided and be sure that all the controls are working and reachable.

VERIFICATION

BEFORE YOUR FIRST RIDE



CHECK THAT EVERYTHING IS TIGHT

Check that all the bolts or other tightening features are sufficiently tight, such as the brake calipers, seatclamp, stem, cockpit, levers, headset, derailleur, wheels and so on...

THINGS TO CHECK

Check the wheels: they should turn without any problem (trueness, roundness...) and be correctly assembled in the frame or the fork.

Check your brakes: they should work correctly and the levers should not feel too hard or too soft.

Transmission: gears should shift easily, the crankset should turn without friction and the chain guide should be set to the 34 tooth position.

Check that the pedals and crankset have no play.

SETTINGS CHECKS

Be sure that your bike is set up to your body specifically:

- Saddle height.
- Suitable saddle orientation.
- specific air pressure in suspension and tires.
- Cockpit and controls position adjusted.



VERIFICATION

BEFORE YOUR FIRST RIDE



TIGHTEN HEADSET

Check that there is no play in the headset.

To do so, stand next to your bike. Push the front brake and place your other hand on the headset. Keep your brake activated and move your bike forward and backward.



- If you feel some play, here are the steps to follow:
- 1) Untighten the two bolts of the stem.
 - 2) Tighten the topcap to 3N.m maximum.
 - 3) Check that there is no more play and your headset can rotate freely.
 - 4) Align your stem with the frontwheel.
 - 5) Tighten the stem bolts.



Contact COMMENCAL Customer Service for info on any changes or modifications of cockpit components (handlebars, stem, grips, etc.).



VERIFICATION

BEFORE AND AFTER EVERY RIDE



BEFORE EVERY RIDE

BRAKE CHECK

Check your brakes. They should be working as usual: not too hard and not too soft.

AIR PRESSURE CHECK

Check your suspension pressure by compressing them. They should feel as previously set. Check that your tires are well inflated (better to do so with a pump with an air pressure gauge).



BOLT CHECKS

Check all the bolts on your bike and be sure that there is no play. You can check the headset, brake calipers, seatclamp, wheel axle, derailleur, stem, frame bolts...



AFTER EVERY RIDE

CLEAN YOUR BIKE

Clean your bike with a sponge and water without insisting on the motor and electric parts.

BIKE CHECK

Check that there are no problems, any play, defects (cracks, impacts, deformation, scratches, decoloration, strange noises...) on your frame or components.

LUBE YOUR CHAIN

After washing your bike, apply some specific lubricant to your chain.



Warning, after use, some parts can be hot: such as disc rotors or the battery.

Warning, do not use a high pressure cleaner. You could damaged seals, bearings, electric system...



MAINTENANCE

MONTHLY / YEARLY

MONTHLY

CHECK THE BRAKE PADS

Check that your brake pads are not worn out. They should have a minimum of 1mm thickness on each pad.

TRANSMISSION

Clean your transmission, grease it and make sure it works correctly.

Check the wear visually on your chainring, cassette and derailleur pulleys. Check your chain wear with a specific tool.

CABLE AND HOSE CHECK

Check that there is no bend, damage or rust to any cables or hoses. If there is, you should replace them.



Good teeth



Worn teeth



If you ride with a damaged wheel you can break your wheel and hurt yourself

CRANKSET CHECK

Check that there is no play in your crankset.

TIRE CHECK

Check the wear of your tires: the material compound, the tread, any cuts or holes... Refer to the information (diameter, size, pressure) indicated on the tyre or inner tube.

YEARLY

SUSPENSION MAINTENANCE

We recommend that you service your suspension with a professional every year or every 100h of riding. Refer to the manufacturer's manual to know the different maintenance procedures (dates and operations) specific to each model.

CHECKS

Check your whole bike: you should find no problems or defects. If you have any doubt, seek advice from a professional.

FRAME CONTROL

Look for any: dents, scratches, cracks, general defects, bearing quality...

BRAKE BLEEDING

For better performance and a longer life, we recommend that you get your brakes bled by a professional.

GREASE

Clean and grease the following parts:

- Hub
- Crankset (thread)
- Headset
- Seatpost
- Frame bolts and contact system



SECURITY

WARNING

GENERAL

- Always keep your bike clean and in good working order.
- For your security, follow the instructions given in the “before your first ride”, “before and after every ride», «monthly» and «yearly» maintenance sections. These steps will enable you to keep your bike running smooth.
- Don't use your bike if you find any problems.
- Always wear a helmet when you ride your bike.
- Respect the laws of the road and the other road users.
- Do not overestimate your physical capability and be aware of the risks associated to bicycle riding.
- Respect the steps of the assembly instruction process and settings process. Use only replacement parts which are compatible or the same as original components.
- Be sure to break-in your brake pads when new.
- Do not sit your bike upside down, you can damage the cockpit, levers or other parts.
- In case of extreme use (like dirt jumping, tricks, downhill, competition) you are responsible for the any injuries that may occur.

Refer to the manufacturer's user manual for all information regarding the lighting device. In addition, please learn the rules and guidelines in the country of use.

IN THE EVENT OF A CRASH

If you crash, you must check that no component (or your frame) has been damaged. If so, replace it accordingly. In case of any doubt, seek advice from a professional.

CORRECT USE

You must respect the intended use your bike was designed for. If you exceed these limits, you can damage your bike or break components and, as a result, injure yourself.

REMINDER TO INSTALL SECURITY ACCESSORIES

We remind you that as well as respecting the law of the road, and other users, you must install all necessary security equipment to be safe on the road.

Refer to the national law in your country for more details.

COMPOSITE COMPONENTS

For composite components impact damage may be invisible to the user. In the event of an impact, you should return your component to the manufacturer for inspection or destroyed and replace it.



SECURITY

WARNING



- Warning, intensive use can lead to damage to your bike.
You should inspect it often to detect any problems.

- Intensive use can lead to damage to components.

- As with all mechanical components, your bike is subject to wear and high stresses. If the design life of a component has been exceeded, it may result in sudden failure and personal injury. Any form of crack, scratches or change of colouring in highly stressed areas indicate that the life of the component has been reached and it should be replaced.

- Warning, incorrect installation, poor assembly procedure or inappropriate parts assembly can lead to irreversible damage to your bike or to your health.



Don't forget that it's easy to catch material and trap body parts when you maintain or use your bike. Beware of trapping fingers when performing maintenance on the chain and cassette.

We recommend using of a trouser clip when riding to prevent material getting caught between the chain and the chain ring.

ACCESSORIES

When these are offered already mounted, please refer to the corresponding manufacturer's site for all details concerning use and possible maintenance. This also applies to the corresponding spare parts.

Please refer to the institutions on the
COMMENCAL website at the following address:
<https://www.commencal.com/en/warranty-support.html>



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