BICYCLE'S & OWNER'S REGISTRATION

BICYCLE IDENTIFICATION	**PURCHASE DATE :** ……
PRODUCT TYPE : Size : ..... Colour :..... Serial Nr. of the frame :…… Battery Nr. :…….	……/……/20……..
OWNER IDENTIFICATION	**RETAILER'S STAMP & SIGNATURE**
OWNER NAME : ..... ADRESS : .... PHONE :	

MBK AXION e-bikes
OWNER'S MANUAL
1st Edition MAY 2013

English – a few diagrams/pictures with French text.

INTRODUCTION

Congratulations with the purchase of your new MBK.
Your MBK is in accordance with the standards EN 15194 and EN 14764.

This model is the result of many years of the MBK experience
in the production of sport, tourism and leasure bikes.
You will fully appreciate the technicity and the liability which have
made MBK a leader in this field.
This manual contains the operation description, the instructions
for the basic maintenance and the periodical control points of the bike.
If any doubt concerning the operation or the maintenance of your new bike!
Please contact your MBK retailer.

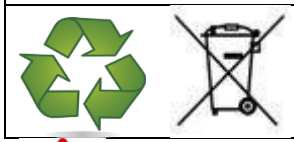
CAUTION !

Read carefully this manual before using your bike so you can avoid an eventual
accident due to a wrong use or a maintenance error.

NB : This manual has to be considered as a part of your bike and kept with it if the bike should get a new owner.

IMPORTANT INFORMATION CONCERNING THIS MANUAL :

In this manual, some special and very important information are marked as followed :

CAUTION !	This symbol indicates a danger of potential personal injuries. Please, read very carefully the messages concerning the safety following this symbol to avoid any danger of injuries or death.
WARNING	A warning symbol means a danger of death or serious injuries if not respected.
CAUTION !	A « CAUTION » symbol means that you have to take specific safety precautions to avoid any damaging of your bike or other things.
NB	A « NB » gives you the necessary information concerning the clear and simple method to use in case of repairs.
	The components with these symbols must not be thrown away as normal garbage, you must bring them to your collection recycling center. If you don't have such one, then contact and ask your MBK retailer.

The safety alert symbol means
CAUTION BE CAREFUL ! YOUR SAFETY IS AT RISK !

! Means a specific procedure which is recommended to you, so you avoid any damage of your bike.

NB.: A « NB » contains the necessary details for easier or clearer procedures.

NB :
Some of the data included in this manual can be changed due to new improvements for this bike. If any doubt contact and ask your MBK retailer.

Continuously, MBK improves the product concept and quality.
Nevertheless, this manual contains most of the information available until the printing of it, but some differences can occur between your bike and this manual.If any question concerning this manual, please contact your MBK retailer.

NB Spareparts :
At your MBK retailer, during a period of minimum 2 years, you will be able to find the original or similar parts for your bike ensuring the same operation.

1/TABLE OF CONTENTS

2/GENERAL
2.1 Bicycle (E A V)

 **WARNING :**

Regarding the insurance of your bike, it is your responsability to respect completely the legal obligations.
According to the EU legislation, our bikes with electrical assistance are a part of the bicycle category.
- The nominal power of the assistance engine is maximum 250 Watts.
- The assistance is automatically « Switch off » at 25 kmphr (16 mphr) or more.
- Your MBK bike with electrical assistance is in accordance with these requirements. So you don't need any driving licence or any road safety licence,
- There is no age limit and you can drive on the bicycle paths.
- You have the responsability to respect the legal obligations concerning the necessary safety equipment recommended for the use of your bike.

The MBK retailers are able to give you all kind of information about this matter.

 **WARNING :**

Your MBK AXION with electrical assistance is made to be used mostly on the normal roads.
This model is not made for an all-terrain use but it can give you full satisfaction as a **« hybrid bike »**.

USE :

Basically, your AXION is a bicycle, you can « drive » it without electrical assistance just like a normal bicycle in the physical exercise that a bike gives you.
When you use it in an urban zone, you can use the assistance to climb up the hills or just for the long distances.

Practical advices :

- We recommend you to shift gear before you climb up a hill even if you feel that the engine does not force.

Otherwise, an enrgy overconsumption will occur and that will reduce your battery autonomy.

- In order to avoid any cracking during the gearshift, reduce « the pressure on the pedals », so you don't have the electrical assistance during the gearshift.

- Your AXION is equipped with an integrated freewheel to the engine system that gives you the possibility to switch off the electrical assistance when you are not pedaling. Try to limit too strong pressures on the « pedal system », especially during a gearshift, when you start uphill on the small gears or when you stop with the Axion.

 **CAUTION**

Avoid the inundated roads : water can cause a failure of the drive unit, « a loss of power » or a shortcircuit of the system.

2.2 Before using your AXION

CAUTION ! **ALWAYS THINK ABOUT YOUR SAFETY WHEN USING YOUR AXION !**

1/ Settings of your bike :

- Is your bike at the right height for you ?
- Are the saddle and the seatpost adjusted correctly for you ?
- Are the handlebar and the stem adjusted correctly for you?
- Are the brake levers position adjusted correctly ?
- Do you know the operation of the electrical assistance system ?
- Does the battery charge allow you to drive the distance you have in mind ?

2/ Your safety :

- It is recommended to wear a helmet and brightly coloured clothing each time you use your bicycle.
- Be very careful when you are using your bike in bad weather conditions (rain, wind, fog, icy roads, …)
- Do you know perfectly the quick-release system of the wheels ?
- Keep always a repair kit on your bike so you can solve an eventual technical problem.
- Lisez ce manuel attentivement et entièrement.

3/ Before each use, check the following points :

- The good condition of your bike and check that the main components (frame, forks, handlebar, wheels and rims) are not damaged.
- The good functioning and efficiency of the front and rear brakes, the condition of the wires and the wire housings of the brakes.
- If the nuts tightening of the wheels and the quick-realeases are correct.
- Check the visibility and the good functioning of the front and rear lighting system.
- Check the presence and the good condition of the signalling and reflecting devices.
- Check also the correct pressure of the tyres.
- Be sure that the battery residual capacity is enough for the distance you have in mind.

NB :

- In case of the dismantling of a wheel or the seat post, do not forget to check the tightenings before use.

Do not modify the components of your bike by yourself, if these have a direct link with your safety : brakes, tyres, saddle or handlebar.
Do not transport luggages that could alterate the balance of your bike or will reduce the visibility and hide the signalling equipment of the bike.

4/ When you use the bike :

- Respect always and completely the rules concerning the road traffic.
- Be extremely careful when you use your bike in bad weather conditions (rain, wind, fogvent, brouillard, icy roads).
- Respect perfectly your bike's maintenance so you always have the best conditions of use of it.

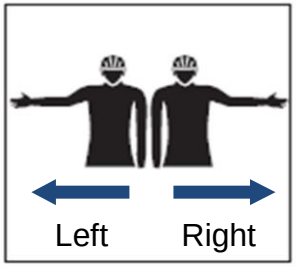
NB : This list is not exhaustive and only the most frequent cases are mentioned. If any doubt, contact your MBK retailer.

2.3 Reminders (of some elementary road traffic rules)

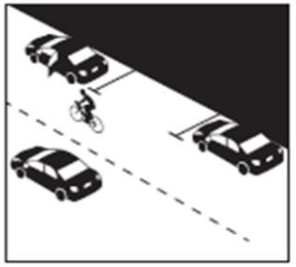
When using public roads, the road traffic rules have to be fully respected.
In addition to these rules, we would like to draw your attention on the reminders mentioned below.

RESPECT THE TRAFFIC SIGNS
Cyclists must respect the road traffic rules

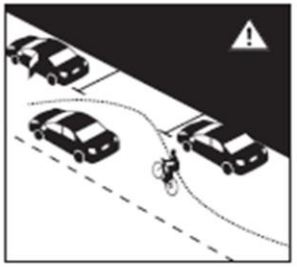
NEVER RIDE AGAINST TRAFFIC
The vehicles do not take care of the cyclists riding in the wrong side of the road.



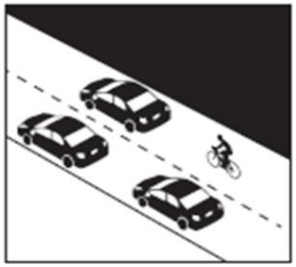
ALWAYS SHOW YOUR INTENTION OF CHANGING DIRECTION
Use your arm.



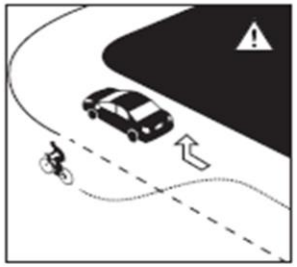
RIDE STRAIGHT AWAY
Do ride straight away. Take care of the vehicles parked along the road. .



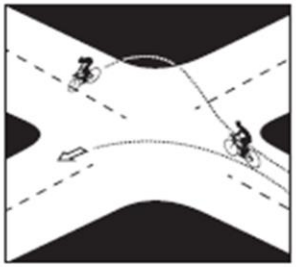
NEVER RIDE IN THE PARKING SPACES.
The vehicles are not able to see you. .



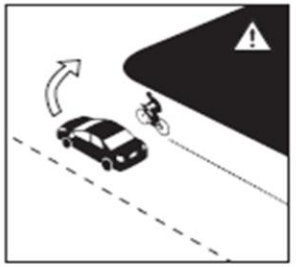
RIDE IN THE MIDDLE OF THE LANE



RESPECT THE TRAFFIC SIGNS

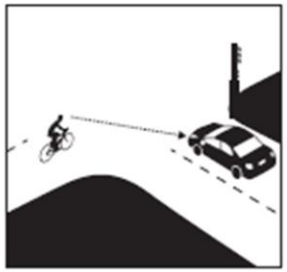


CHOOSE THE BEST SOLUTION WHEN YOU HAVE TO TURN



DON'T OVERTAKE FROM THE RIGHT SIDE OF THE LANE

RIDE SLOWLY NEAR THE WALKWAY
The pedestrians have the priority in a walkway



BE CAREFUL WITH THE CARS DRIVING AWAY

BE CAREFUL WITH THE CARS COMING FROM BEHIND

AVOID HAZARDOUS DRIVING / RIDING

KEEP BOTH HANDS ON SO YOU CAN BRAKE EASILY

BE CAREFUL WITH DOGS

BE IN GOOD SHAPE
Before driving / riding long distances

USE ONLY A WELL EQUIPPED BIKE.
Always be sure the safety equipment of your bike is functioning.

WEAR THE APPROPRIATE CLOTHING.
Wear a helmet and a retroreflective clothing.

REMEMBER TO ATTACH YOUR AXION.
Attach the frame of your Axion to a securing point.

MAINTAIN YOUR BIKE.
To be fully satisfied with your AXION. Respect the maintenance recommendations.

3/USE AND ADVICES

3.1 The first time

When you use for the first time, your new MBK AXION, we recommend you to choose an environment that you know well, in which you feel secure, far away from the traffic with cars. We recommend you to learn how to use all the functions. Get confident with the use of the brakes by using the rear brake first. The front brake can be difficult to use correctly at first, you can loose control of your bike or eventually crash by applying the front brake too much.
Get used to shift the assistance mode by using the controlbox.
Get used to shift the gears. Do not use the gearshift while « pedaling backwards », do not pedal backwards after a gearshift, this can block the chain and cause damages on your bike or cause a crash.

 **WARNING :**
* Always be sure that your kickstand is up before starting.
* Use your Axion only when you are sitting on the bicycle, having one foot on a pedal and the other one on the ground, so you can keep your balance.
* Never start your Axion by pushing it and having only a foot on a pedal.
* If you do not respect these recommendations, you can loose control and you can crash.

 **WARNING :**
When you stop, do it by using simultaneously the front and rear brakes and by positioning both feet on the ground. If you let one foot on a pedal, you can risk to loose control of your bike.

 **CAUTION !**
Always respect the current local laws and the rules concerning cycling in general, the rules concerning the lighting, the bikes registration and their use, the traffic of the bikes on pavements, on bike paths and public paths, use of a helmet, use of a child safety seat. Respect the specific laws concerning bikes in the traffic.

3.2 Use of your bike in wet weather

 **WARNING :**
The use of your bike in wet weather conditions, like fog or rain reduce your visibility, the necessary braking distances are longer for cyclists just like for all the other road users. Be careful, in these conditions, the risk of an accident is much higher.

In relative humidity, the tyres grip and the braking force are reduced.
In wet weather conditions, we recommend you to drive more slowly and to brake earlier and smoother than in dry weather conditions, so you can stop safely.

3.3 Use of your bike at night

Ride at night on a bicycle is more dangerous than in daylight. It is difficult for the cardrivers and the pedestrians to see a cyclist at night.
We reccommend you to take additional precautions with your cyclist equipment and the choice of your trip / distance.

CAUTION !

Wearing a retroreflective safety jacket (yellow) is mandatory in the metropolitan France for all cyclists and passengers who are riding outside the urban zones at night or when the visibility is reduced. Ref. Article R431-1-1 of the Road Traffic Code.

WARNING :

Check regularly the good condition and the good functioning of all the ligthing devices, Front and Rear.
Do not remove the reflectors : they are an integrated part of the bike.

3.4 : Changes of the bike

a : Installation of accessories

CAUTION !

A lot of accesories are available on the market to improve the aspect and the confort of your bicycle.
A change made by other persons than the manufacturer of your bike can have consequences for the safety and change the compliance or the related requirement to it. In this case the manufacturer or the retailer will disclaim all responsibility.

A change of the bike or its components, the mounting of non-compliant accessories, the lack of maintenance can cause malfunctions which can cause serious injuries or crashes.

Before the installation of an accessory (check the compatibility) or the use of tyres with different dimensions, we recommend you to contact your retailer.

b : Installation of a child seat

- The Axion is not suitable for a child seat on the rear rack.
- The Axion is not suitable for the installation of a child seat on the handlebar.

The handlebar in aluminium can not withstand this type of stress and can break by repetitive stresses.

CAUTION !

For a safe transport of a child on a bike, it is important to use an approved child seat fixed on the frame and to take all precautions to :
- Avoid that the feet of the child do not touched the spokes of the rear wheel.
- Avoid that the child do not get his fingers caught in some support parts and the fixation system under the saddle.

3.5 Non-compliance of the bike

The non-compliance of any bike with electrical assistance is when some of the bike components are worn. Like damaged tyres, deformed rims, blurred or used, damaged frame or fork, battery, controlbox but also a damaged engine and any other own adaptation or transformation, especially those which alterate the safety.

3.6 Alteration of the bike components

CAUTION !

Like any other mechanical structure, the components of your AXION are subjected to alternated and repetitive stresses which cause wearing and a mechanical « fatigue ».
During the action of these stresses, the different mechanisms and the elements of the bike are subjected to wearing and fatigue in accordance with their place and the subjected strains.
- When the life of a component is over, it can break suddenly and cause serious injuries for the cyclist.

Changes of color (discolouration of the stressed zones of the metallic elements), cracks (for the structural elements), unravellings (for the tyres or composite materials) are signs of a wearing caused by strainsand that these components have been subjected to mechanical stresses and that their structural limits are reached. Then it is necessary to replace this / those component(s).
Your Axion has a specific warranty period but it is not because your bike is eternal. Your bike is only covered under warranty in accordance with the terms of the warranty.
The lifespan of a product is directly linked with the type of use of the bike and the shocks that the bike have been subjected to.

NB : In case of a shock or a crash, let always your MBK retailer take a look at your bike.
If any doubt, contact your MBK retailer.

a/ What to do if a crash or a shock occurs

If you crash with your AXION or it is subjected to a shock :
- Be sure at first that you are not injured.
- Treat yourself and contact a doctor if necessary.
- Finally, look at the eventual damages of your AXION..
- After a shock or a crash, let the MBK retailer take a look at your AXION, so your bike can be checked completely.

WARNING :

A crash or a shock can subject the components of your AXION to some heavy and unusual stresses which can cause severe strains or create zones of fatigue which can affect the lifespan of your Axion.
NB : Never forget to contact the MBK retailer after a crash or a shock, both can reduce your own safety or other persons safety in the traffic.

4/PRINCIPLE OF THE ASSISTANCE OPERATION

The Axion is a regular bicycle equipped with an electrical assistance system with an electrical engine, a battery, a computer and a controlbox.

4.1 How to use the assistance function

When the controlbox placed on the handlebar is in function, the assistance will be in function when you pedal.
The assistance system require almost no effort on a flat road.
The start of the assistance function is possible when the crankset is in rotation through the torque sensor.
If you « stop pedaling » or you reduce the effort or rate of pedaling, the assistance will automatically be switch off. In accordance with the selection of the gear, this sensation will not be noticeable.

4.2 How to switch off the assistance :

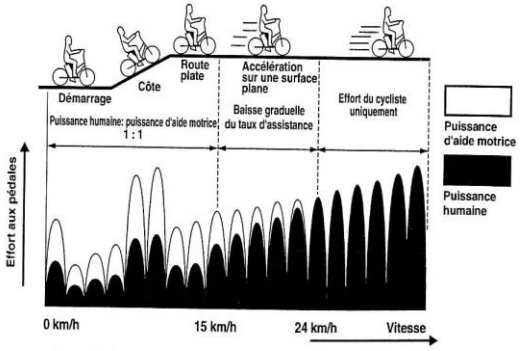
- In compliance with the current rules, the assistance is automatically switch off at 25kmphr (16mprhr).
- Over this speed, the engine stops automatically. You are allowed to drive at a higher speed with the help of your own muscles or when you get downhill.
- The assistance is automatically switch off when :
    - You reach the speed of 25 kmprhr (16mphr) or more,
    - You stop pedaling,
    - The operation button on the controlbox is switch off,
    - The battery is not charged (residual capacity of 0%)
    - The assistance system stops automatically when it is not used during a period of 5 minutes.

Nota : If the controlbox is switch off, you can use your Axion as a regular bike.

4.3 Assistance system modes :

The controlbox is under voltage

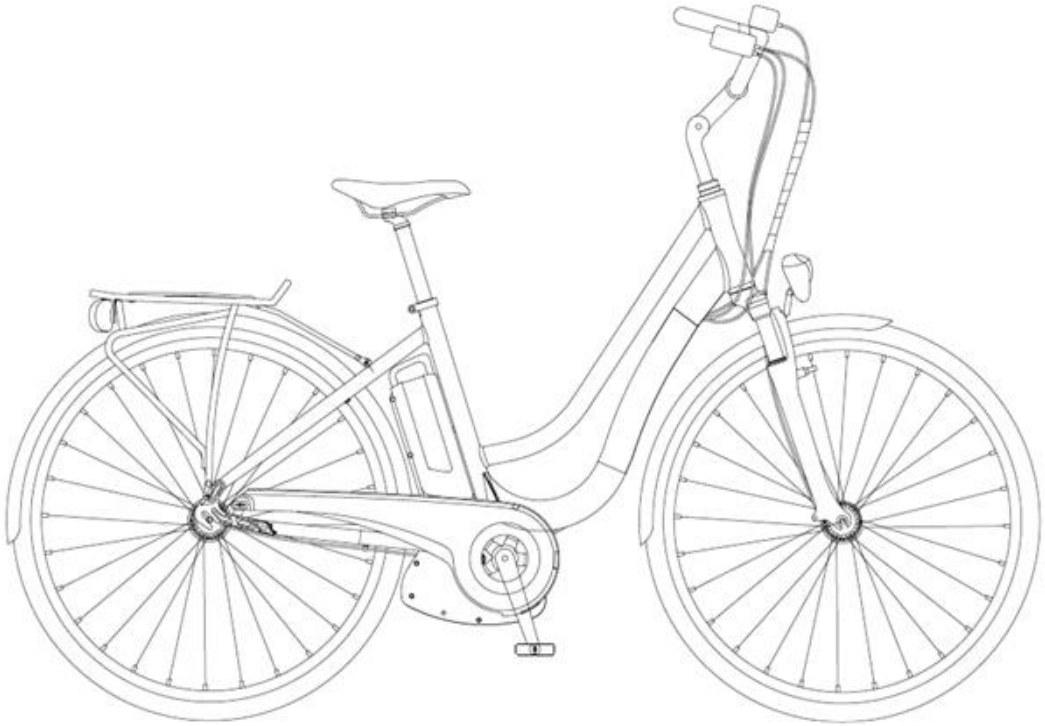
- ECO Mode : this mode offers a maxi autonomy
- STD Mode : this standard or normal mode offers a good compromise between assistance and autonomy
- HIGH Mode : this mode offers a high level of assistance
- « OFF » Mode without assistance : with this mode you can use your Axion as a normal bike. (only with bikes with LCD display)



Relation between the human effort and the electrical assistance help

5/DESCRIPTION OF THE AXION

5.1 Model for WOMEN



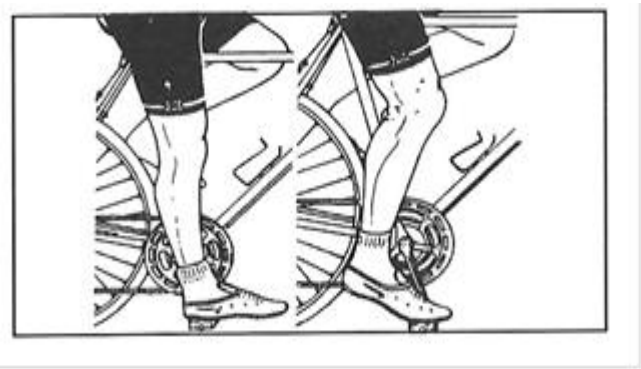
6/ PERSONAL SETTINGS OF THE AXION

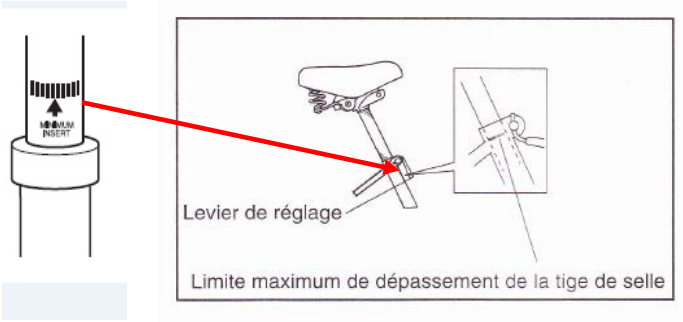
6.1 Saddle settings

a/ Required tools :
- Allen key of 4,5 or 6 mm or combination wrench of 10-11-12 mm (depending on the clamp type)

b/ Control of the height :
- Sit down on your saddle
- Put your heel on the pedal
- Turn the crank until the pedal with your heel on is down and the crank arm is parallel with the seat post.

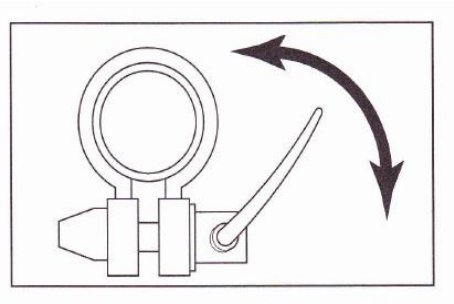
NB :
- If your leg is not totally straight, the height of the saddle must be adjust.
- If your heel do not reach the pedal, the saddle is too high.
- If your leg is not straight with the heel on the pedal, the saddle is too low.



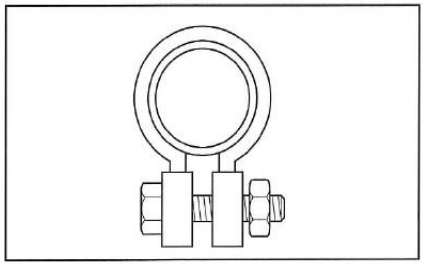


c/ Settings of the height :
- Loosen the clamp of the saddle until you can turn the seat post – then at the correct height.

⚠ **WARNING :**
Set the height of the seat post until the « STOP » or until the « INSERT LIMIT » indicated by the manufacturer by a line or a streak.



With a clamping lever :
- Pull the clamping lever
- Set the height of the saddle
- Set manually the tightening of the nut
- Close the quick- release
- The tightening force of this part must be sufficient to avoid that the seat post moves down.

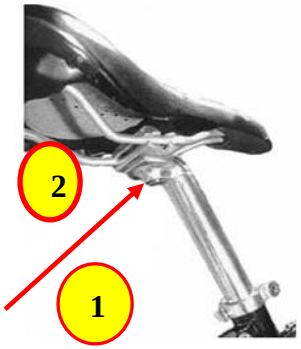


With a seat post nut :
- Use a combination wrench or an Allen key
- Loosen the nut around 3 turns
- Set the height of the saddle
- Use the torque wrench to tighten the nut at the right torque.

CAUTION !

If any doubt about the settings and the use of the « saddle tightening », contact your MBK retailer.

d/ Setting of the seat post position :



For the setting of the seat post position loosen the screw (1) and change the position of the saddle rails (2) so you are able to find the optimal use position.

Then tighten the screw (1) at the correct torque with the torque wrench. Contact regularly your MBK retailer if your AXION is equipped with a suspension system for a control of the system.

e/ Setting for the saddle angle and posiition :

- loosen the screw under the saddle,
- adjust at the correct value,
- tighten again the tigthening screw at the correct torque with a torque wrench.

WARNING :

Before using your bike after the saddle setting, make sure that the fixation parts are tightened correctly. A saddle fixation or a loosen seat post can cause a crash. Contact an MBK retailer if any doubt about the setting and the use of the « saddle tightening ».

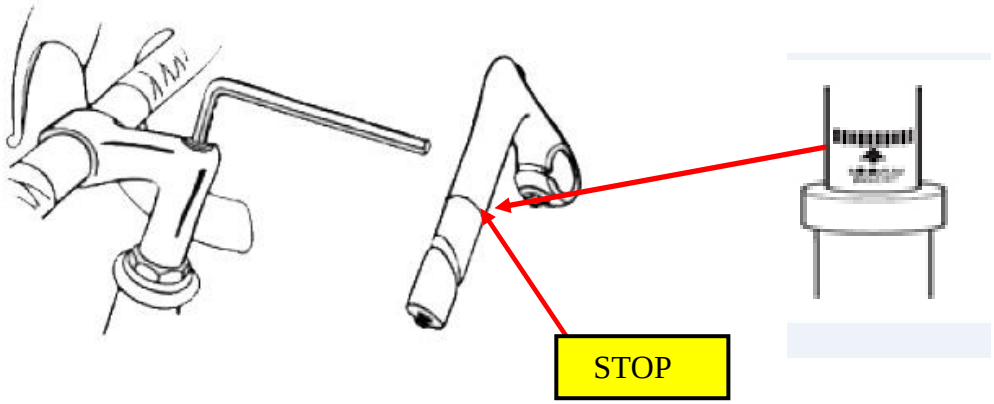
6.2 Handlebar settings

a/ Required tools :
Allen key of 4,5 or 6 mm (depending on the clamp type)

b/ Setting of the height :

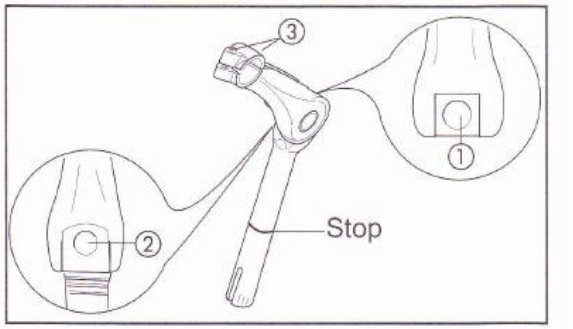
b.1 : Stem with a quill
Depending on the model, your bicycle can be equipped with a stem with quill. We recommend you to ask your retailer to set the handlebar height by adjusting the « stem ».

- Loosen the fixing screws of the stem.
Set the height and be sure to respect the « STOP » limit of the manufacturer.
Tighten the screw at the correct torque with a torque wrench.
If any doubt, contact a MBK retailer.



- Loosen the stem fixation with an Allen of 4,5 or 6 mm.
- Set the stem at the correct height and be sure to respect the « STOP » or the « INSERT LIMIT » of the manufacturer.
- Then tighten again the screw of « the quill » and make sure that the handlebar is perpendicular to the front wheel.
- Use a torque wrench to tighten the screw at the correct torque. Make sure that the « STOP » or the « INSERT LIMIT » from the manufacturer are not visible.

Setting of the handlebar slope : (depending on the model)

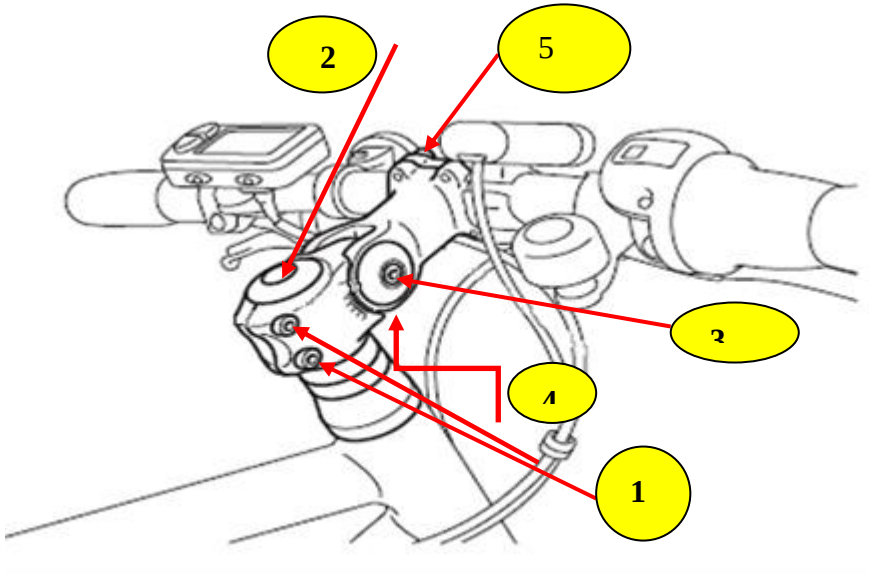


Loosen with an Allen key the fixing screws 1, 2 or 3 around 3 turns.
- Set the handlebar slope
- Tighten again the screws at the correct torque with a torque wrench.

⚠ Make sure that the « STOP » or the « INSERT LIMIT » from the manufacturer are not visible

b. 2 STEM (without thread) or ‘’AHEAD SET’’ (depending on the model)

If your stem is fixed on a steerer tube without thread (Ahead Set type). Contact the MBK retailer. He can set the height of the stem by changing the height and the position of the spacers positioned below it.



To set the handlebar on a « Ahead set » stem :
- Loosen slightly the screws 1.
- Get the upper plug by loosing completely the screw 2.
- Position the handlebar perpendicurlarly to the front wheel.
- Refit and tighten the screw 2 at the correct torque with a torque wrench.
- Tighten the screws 1 at the correct torque with a torque wrench

To set the slope of a « Ahead set » stem :
- Remove le screw 4 and the locking system.
- Loosen slightly the screw 3.
- Set the slope as wanted.
- Tighten again the screw 3.
- Refit the locking system and the screw 4.
- Tighten them at the correct torque.
- If necessary, loosen the screws 5, set the position of the handlebar then tighten again the screws at the correct torque.
- Check if the functioning of the brakes and gearshift are correct.

6.3 Setting of the grips

a/ Required tools :

Allen key of 4,5 or 6mm (depending on the clamp type)

For your comfort when using your bike, your hands must be positioned on the grips with the arms slightly angle

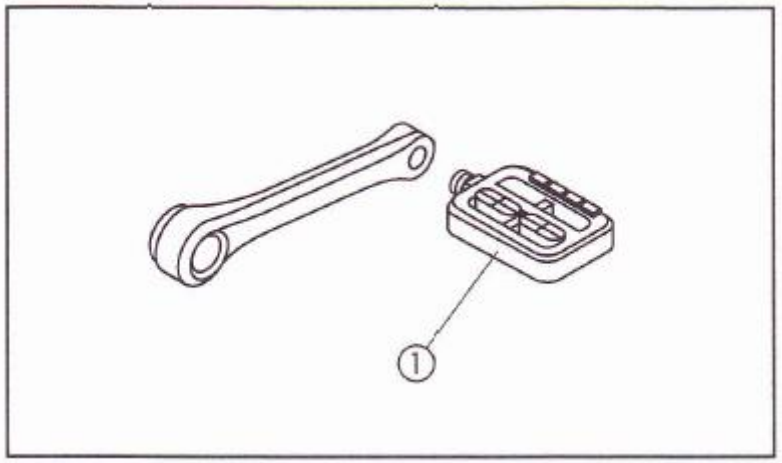
b/ Setting :

1. Loosen the stem.
2. Set the handlebar in the correct position.
3. Make sure that all the threads and the cables are free, not wound around the stem or the front fork.
4. Align the center of your handlebar with the center of the stem. At the correct position tighten the stem at the correct torque.
5. If you are not confident with each of the steps above mentioned or if you are not sure that the handlebar is fixed correctly, please contact your MBK retailer.

6.4 Pedals mounting

The pedals are marked « L » or « R » : L for Left and R for right.
The pedals can only be mounted on the appropriate side, L or R.
Install and tighten the left pedal (1) (with L) in the left crank arm by turning the pedal axe in counterclockwise direction.

Repeat step by step for the right pedal (with R) in the right crank arm by turning the pedal axe clockwise.
Use a torque wrench to tighten the pedals at the correct torque. If any doubt, contact your MBK retailer.



CAUTION !:
The non-compliance of the above mentioned indications and the correct wrench can damage the thread and the pedals can fall out.

7/ TYRES

The wheels of the Axion are equipped with « tubed » tyres.
The dimension, the maximum inflation pressure are indicated on the tyre's sidewall.

NB : The tyres of your Axion are equipped with retroreflective sidewalls. For your safety, keep them clean.

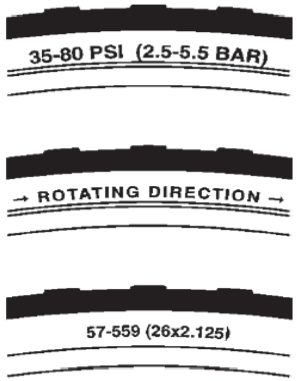
7.1 General

To get an optimal functioning and a good use safety, check the following points :
- the condition of the tread and the sidewalls of the tyres. Make sure that the tyre is not cracked or with an uneven tread wearing.
- that there are no « deformation » of the tread or the sidewalls of the tyres.
- if the tyre valve is straight and not deformed.
- the tyres pressure before using your bike.

CAUTION !:
A damaged or worn tyre must be replaced immediatley. If any doubt, ask your MBK retailer.

7.2 Tyre pressure

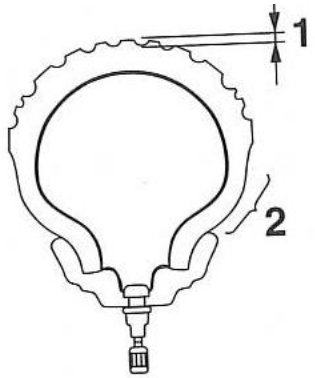
The tyres of your Axion must be inflated at the required pressure with a pump.
*The pressures have to be adjust in accordance with the user or the type of tyres. If any doubt, contact your MBK retailer.



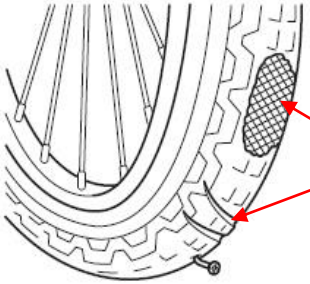
On the sidewall of the tyre, you will find :
- The maximum inflation pressure (PSI or Bars).
- The rotation direction.
- The dimension of the tyre.

CAUTION !:
Never inflate the tyres to a higher value than the one indicated on the tyre.

7.3 Controls of the tyres



Control of the tyres :
Control the tyres before each time you use your bike.
If the tread (1), the sidewalls (2) are damaged, worn, or cracked, replace the tyre immedialtely.
Recommended inflation pressure (control when the tyres are cold)
Front : 350 to 400Kpa (3,50 to 4,00kg/cm2)
Rear : 350 to 400Kpa (3,50 to 400kg/cm2)
NOTA : the maximum pressure allowed is indicated on the sidewall of the tyre.



Tyre damages

CAUTION !:
The result of under-inflated tyres is a difficult driving of the Axion and reduce the autonomy of the assistance system.

Tyres dimension	Recommended pressure
700X38C	350 – 400Kpa (3,5 - 4,0kg/cm2)
28X 2’00	350 - 400Kpa (3,5 - 4,0Kg/cm2)

=
TOTAL AUTHORIZED WEIGHT : 130 KG *
Total Authorised Weight = Total Weight of the Cyclist, of the bike and the load

8/OPERATION OF THE BIKE

8.1 The wheels

The wheels are essential elements and are an active part of your safety with the AXION.

a/ The rims

They must be in good conditions : smooth, without flaking, crack, rupture or deformation.
If you notice any anomaly / defect of anykind ! Please, do not use your Axion, contact your MBK retailer

b/ The spokes

The spokes are essential parts of the wheels and must be controlled regularly.
The spokes tension must be controlled regularly.
All the spokes must be tensed with the same tension.
If a spoke is broken or is too flexible. Please contact your MBK retailer.

c/ The hub

It connects the wheel to the bike. Make sure that these do not have any excessive play and they must be well maintained constantly.

WARNING :
Using a bike with one of the wheels having mechanical anomalies like : a slacked or broken spoke, a damaged or deformed rim can cause a wheel failure and cause the user a serious injury.

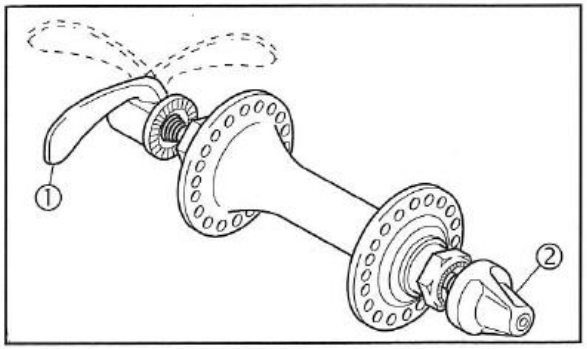
8.2 The quick-release system

WARNING :
Driving with a quick-release which is not adjust correctly can cause a wheel oscillation and cause a crash.
So before using your bike, we recommend you :
- to know how to install safely the wheels.
- to check regularly that the wheels are fixed perfectly.

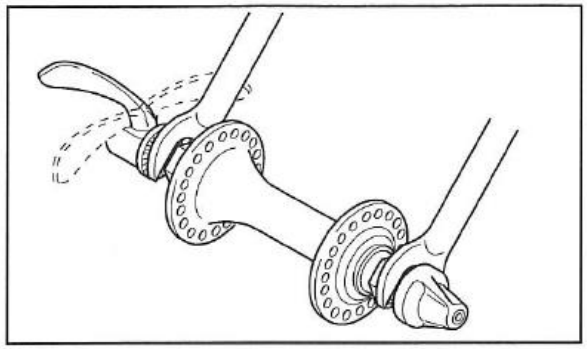
If any doubt, ask your MBK retailer to see if you know how to install or remove the wheels safely.

a/ Presentation

The quick-release has a cam to fix the wheel on the frame or the fork. This part is adjustable, so it is crucial to know how it works so you can fix the wheel safely.
NB : Make sure that the retailer has given you the manufacturer's instructions on how to install or remove a wheel.

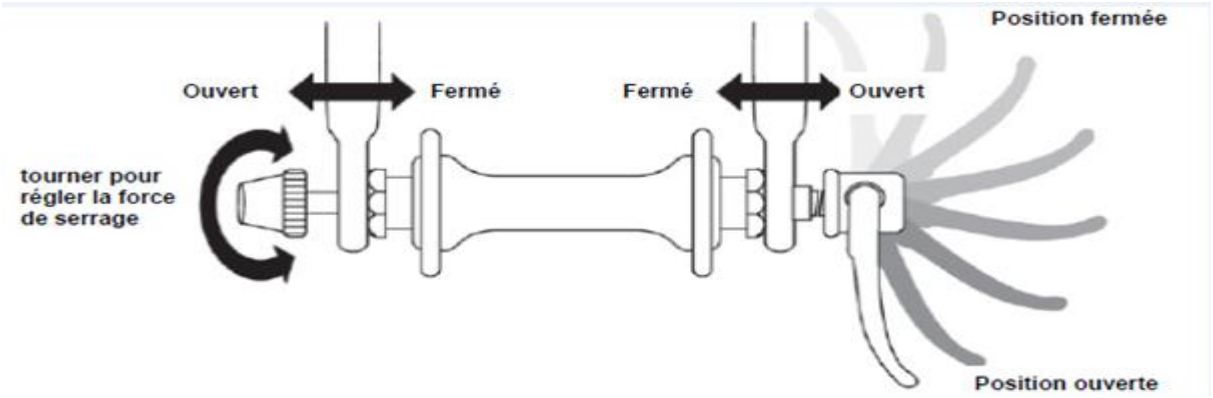


1 : Locking lever
2 : Adjusting nut

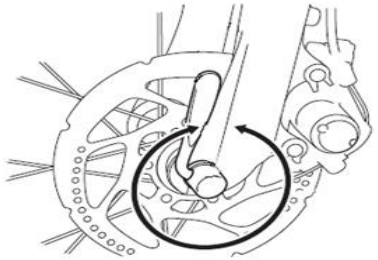


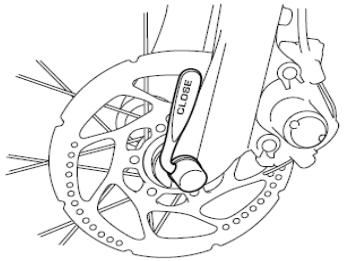
Most of the front wheels have a safety system to avoid that the wheel falls off.

b/ Operating principle of the quick-release

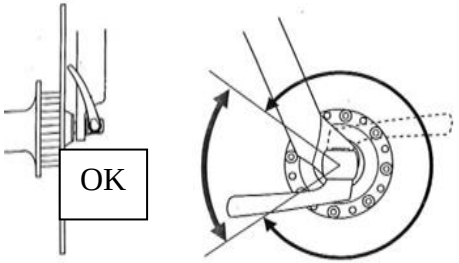


Insert the wheels in the grooves at the bottom of the forks.
- When the lever is in « open » position, screw the adjustment nut until the locking lever requires a significant effort to lock the system by positioning the lever in « close » position.
- When the quick-release is tightened, make sure that the positioning of the wheel is correct (centering and position) and then hit with your handpalm up and down on the tyre.

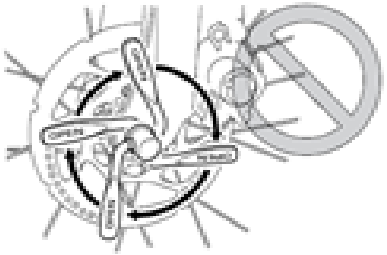




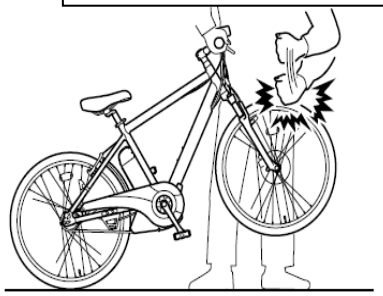
The lever positioning must never interfere with other components.
If necessary, turn the lever in the correct position
before the locking.



Correct positions of the quick-release
lever in locked position.



Do not turn the lever during the locking.



Always check the correct positioning of the wheel by hitting up and down on the tyre.

8.3 The systems with tightening nuts

WARNING :

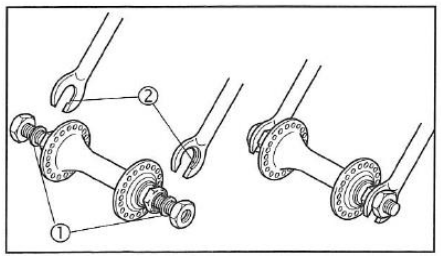
Driving with tightening nuts which are correctly not tightened can cause a wheel oscillation and cause a crash.
So before using your bike, we recommend you :
- to know how to install safely the wheels.
- to check regularly that the wheels are fixed perfectly.

If any doubt, ask your MBK retailer to see if you know how to install or remove the wheels safely.

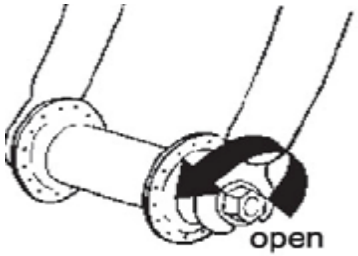
a/ Presentation

The wheels tightening is made by tightening nuts which fix the wheel on the frame and the forks.

NB : Make sure that the retailer has given you the manufacturer's instructions on how to install or remove a wheel.

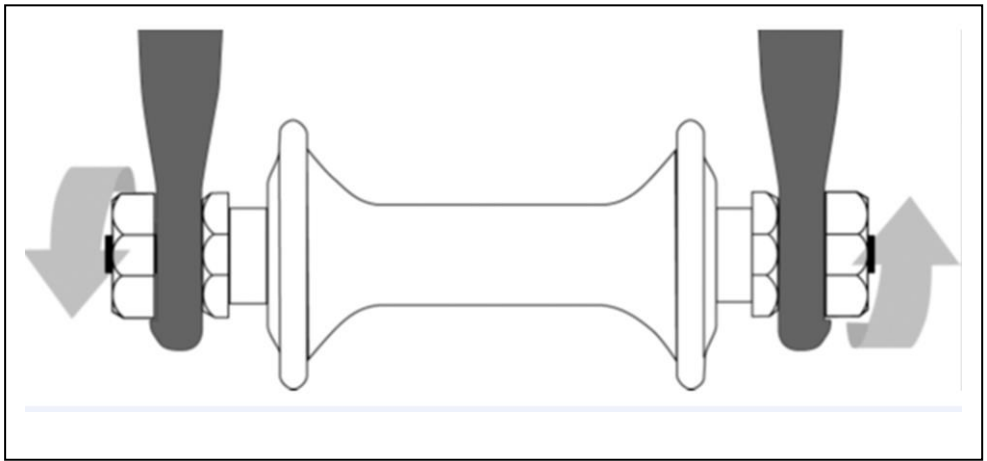


❶Washers ❷ Housing of the wheel axle



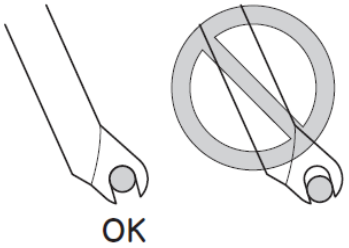
The arrow indicates the opening direction.

b/ Operating of the wheel's tightening by nuts

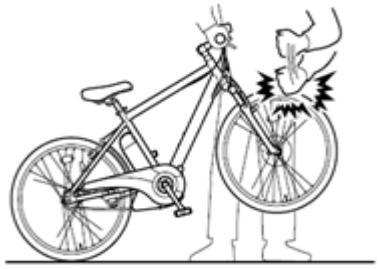


Place the wheel in the fork.
- Screw the nuts (follow the arrows) then tighten the nuts at the correct torque.
- When the nuts are tightened, make sure that the wheel's position is correct by hitting up and down on the tyre with your handpalm.

The arrows indicate the tightening's direction.



Place correctly the axle in the fork.



Always check the correct positioning of the wheel by hitting up and down on the tyre.

CAUTION !
When you handle or repair a wheel with a disk brake, please handle it carefully !
The edges of the disk are sharps.

8.4 The suspensions

If your AXION is equipped with a suspension fork, we recommend you to follow the manufacturer's recommendations for the setting and the maintenance.
If you do not have these instructions, contact your MBK retailer.

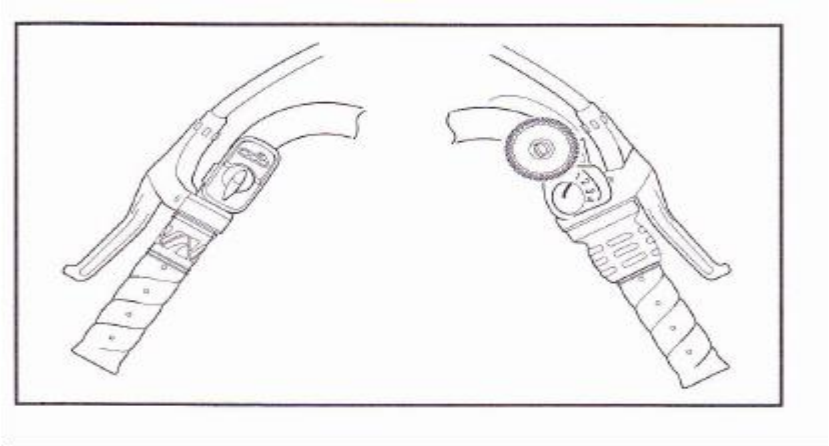
8.5 The brakes

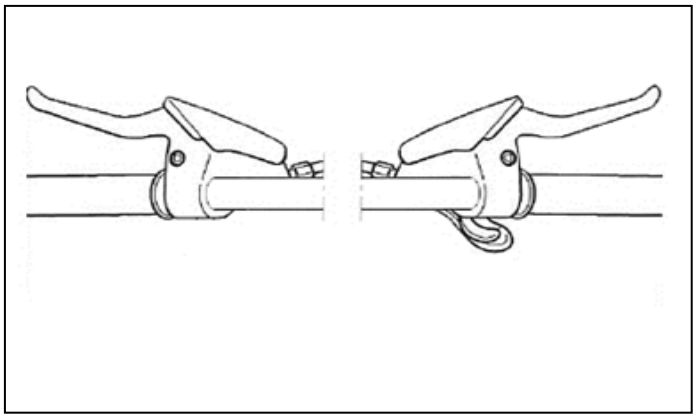
The brakes are parts of the safety equipment : before using your AXION, learn how to use them.
The first time, check the connection between the Front brake and its brake lever. Do the same with the Rear brake.

WARNING :
Driving with some uncorrectly adjusted or worn brakes can be very dangerous and cause serious injuries.
- If you apply too strongly, the brakes can block and then you can loose control and crash.
- Read the manufacturer's recommendations of use and maintenance and ask your MBK retailer for more information.

a/ The Levers

They are placed beside the grips of your handlebar and their are used for the braking function.
NB : The slope angle of the levers can be changed. Ask your MBK retailer to change the position of the levers.



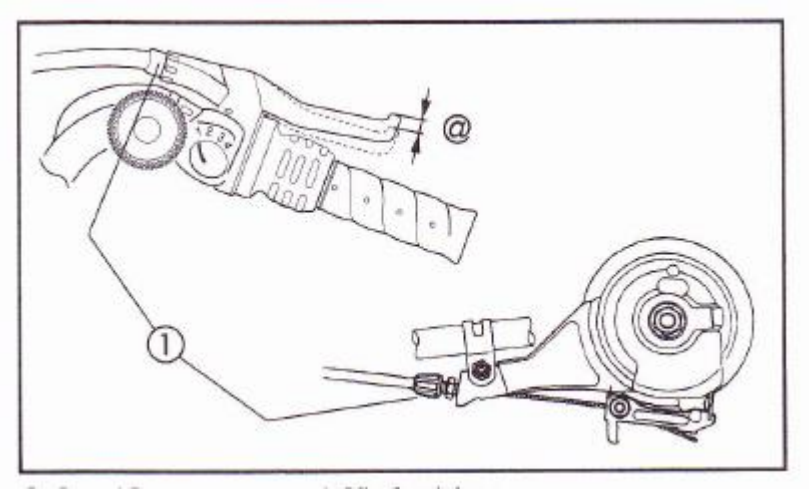


CAUTION !
When the brake lever stroke is reduced, it is difficult to obtain a correct adjusting of the brakes.
The power of the braking function can suffer a lot with a reduced brake lever stroke. .
You can loose control or crash because of an unsufficient brake lever stroke.
Nota : The free stroke on the extremity of the lever is about 15mm before you can feel the beginning of the braking function.

b/ The ROLLER BRAKES :

These brakes are placed at the front or at the rear of the different Axion models.

For the settings
- Check the functioning of the brake by using the brake lever.
- Set the brake by screwing or loosen the setting's thumbwheel.
- The free stroke on the extremity of the lever is about 15mm before you can feel the beginning of the braking function.



@ : Stroke : 15mm 1 : Setting's thumbwheel

WARNING :
If you are not able to obtain the specific setting. Contact your MBK retailer.

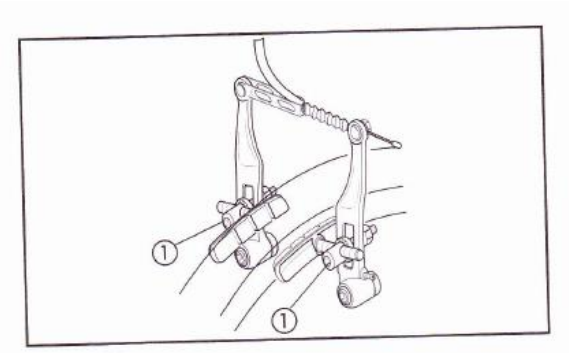
C/ The brakes with brake shoes

These brakes are placed at the front or at the rear of some Axion models and they function by the brake shoes pressure on the rim.

CAUTION !
Read the use and maintenance manufacturer's recommendations. If you do not have them, ask your MBK retailer.

CAUTION !
Check the condition of the wires, the housings, the brake shoes and make sure that they function safely before using your bike.

Setting :



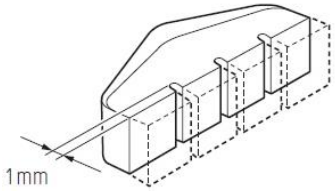
- Use a combination wrench or an Allen key to loose the screw ❶, 3 turns, to allow the positioning of the brake shoes on the specific rim area used for the braking function (without touching the tyre's sidewall)

Check if the brake shoes are worn and without foreign matter.
The tread of the brake shoes must always be visible.

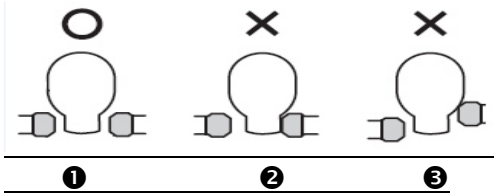
If the brake shoes are worn, replace them immediately. Contact your MBK retailer.
- Set the height of the brake shoes in accordance wih the rim.
- Tighten the screws at the correct torque with a torque wrench.

WARNING :
If you are not able to obtain the correct setting, contact your MBK retailer.

Examples :



Always replace the brake shoes by pair.
Maximum wear : Replace the pair of brake shoes if there is no more than 1 mm of the brake shoe's profile.



When you install the brake shoes, always make sure that they have the correct positioning on the rim.

❶ Correct
❷ & ❸ Uncorrect : necessary adjusting

CAUTION !:
Avoid to put lubricant products on the rims, the brake shoes and the tyres. If it occurs, clean immediately with a detergent and rinse with water.

d/ The disc brakes

The disc brakes are powerful. Learn their functioning and how to use them reasonably.

CAUTION !
Read the use and maintenance manufacturer's recommendations. If you do not have them, ask your MBK retailer.

CAUTION !
Each time you use your bike, we recommend you to check :

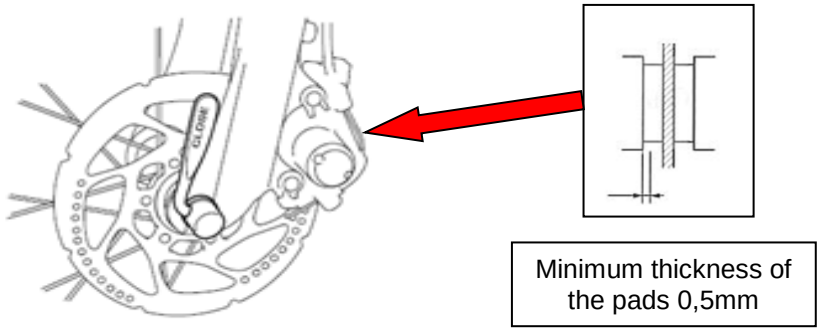
- The functioning of the Front and the Rear brakes
- That there is no leak of brake fluid in the system
- The condition of the brake hoses
- The condition of the brake pads

If any anomaly. Please, do not try to repair. Just contact your MBK retailer.

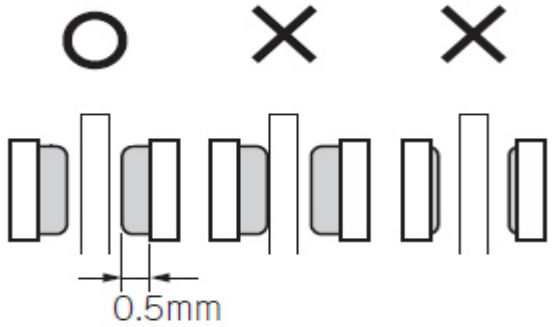
d.1/ Control of the brake pads

Check the condition of the Front / Rear brake pads and check the thickness of the brake linings.
If a brake pad is damaged or if the thickness is under 0,5mm, ask your MBK retailer to replace both pads.

NB : Be careful while handling or repairing a wheel equipped with a disc brake.
The edges of the disc are sharp.



Minimum thickness of the pads 0,5mm



When checking the brake pads, make sure that their positioning is correct in the caliper and on the disc.

❶ Correct
❷ & ❸ Uncorrect : necessary setting

MBK_____

d.2/ The brake fluid

The brake system is filled and bled by the manufacturer.
The level of the brake fluid is not visible from outside.
NB : The correct brake fluid is : DOT 4 exclusively.

CAUTION !
The top up of brake fluid demands precautions and specific tools. If any doubt, ask your MBK retailer.
- The topping up must always be done with the same brake fluid and brand that is used in the system.
- The blend of various brake fluids can cause a chemical reaction and a bad brake functioning.
- The brake fluid can damage the painted surfaces and the plastic parts. Always clean up carefully any trace of brake fluid.
- The wearing of the brake pads reduces progressively the level of brake fluid. If any doubt, contact your MBK retailer.
- The replacement of the brake fluid must be done by a retailer in accordance with the scheduled maintenance for the Axion.
- The replacement of the brake system hoses must be done in accordance with the scheduled maintenance or when they are damaged.

CAUTION !
If your bike is equipped with disc brakes, avoid to damage the discs, the calipers or the pads when you insert the disc again in the caliper.
Never use a disc brake lever as long as the disc is not inserted correctly in the caliper.

9/THE GEARSHIFT SYSTEM

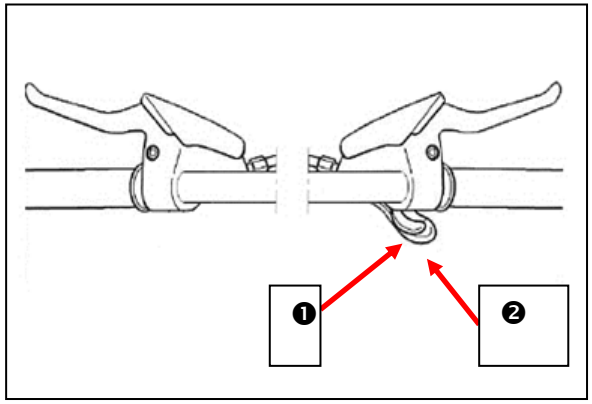
9.1 General

Learn how to use the gearshift levers.
Several types are available.
NB : The slope of the supports for the gearshift's levers on the handlebar can be modified.
Ask your MBK retailer to make the modification.

9.2 The push levers

The push levers under the handlebar are indexed : correlation between the indicate positioning on the display and the transmission gear.
The gearshift is performed while the crankset is in rotation in clockwise direction.
The lever 1 is used to gear up : from smaller sprocket to larger sprocket
The lever 2 is used to gear down : from larger sprocket to smaller sprocket

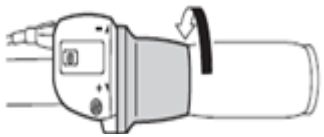
CAUTION ! Do not use the gearshift while pedaling backwards and do not pedal backwards immediately after using the gearshift's lever.
The chain could be jammed and the bike will be damaged.



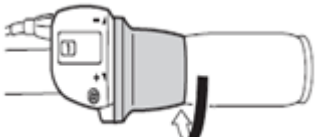
Gearshift push levers.
The lever 1 is used to gear up.
The lever 2 is used to gear down.'

9.3 The twist grips

The gearshift is performed while the crankset is in rotation. These controls are indexed : correlation between the positioning indicated on the display and the transmission gear.
To gear up, turn the grip towards.
To gear down, turn the grip backwards.
The gearshift is performed while the crankset is in rotation in clockwise direction.



To gear up



To gear down

The micro shift turning grip To gear up (1 to 7), turn towards. To gear down (7 to 1), turn backwards.

CAUTION ! Never use the gearshift while pedaling backwards and do not pedal backwards immediately after you have used the gearshift's lever.
There is a risk for the chain to be jammed and you can damage your bike.

CAUTION ! For an optimal functioning the gearshift systems have to be maintained perfectly and must never be damaged.
Moreover, the wires and the connections have to be correctly maintained and lubricated.

9.4 Gearshift setting

CAUTION !
Read thoroughly the manufacturer's recommendations of use and maintenance. If you do not have these recommendations, ask your MBK retailer.

9.5 Derailleur setting

Use the screws 1 and 2 to set the stops limiting the derailleur stroke.
Use screw 3 to set the wire. .

a/ Setting of the stop for the highest gear

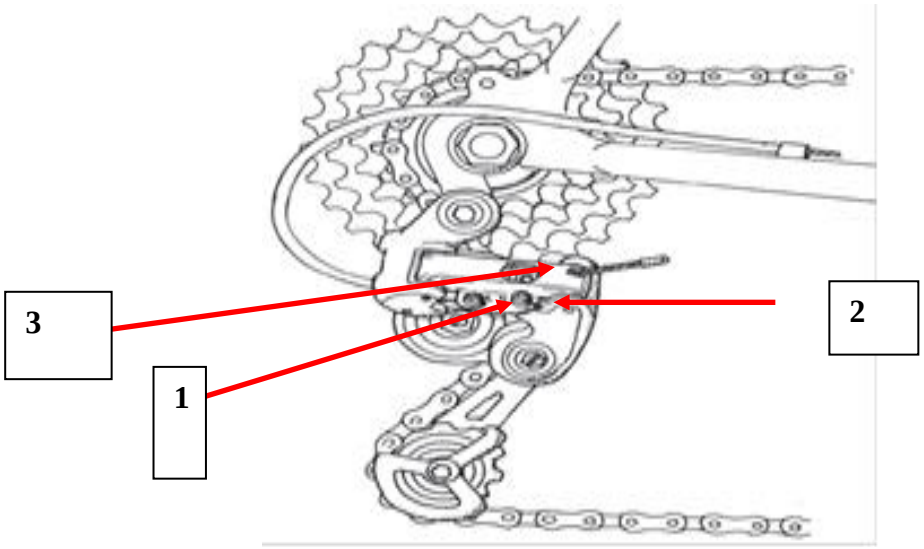
Turn the setting screw (1) for the setting of the highest gear (the little sprocket). Make sure that the chain is on the little sprocket by looking at the upper roller from the rear of the bike which has to be positioned under the little sprocket.

b/ Setting of the stop for the lowest gear

Turn the setting screw (2) for the setting of the lowest gear. Make sure that the chain is on the largest sprocket by looking at the upper roller from the rear of the bike which has to be positioned under the largest sprocket. Check now the second gear.

c/ Setting of the setscrew for the wire

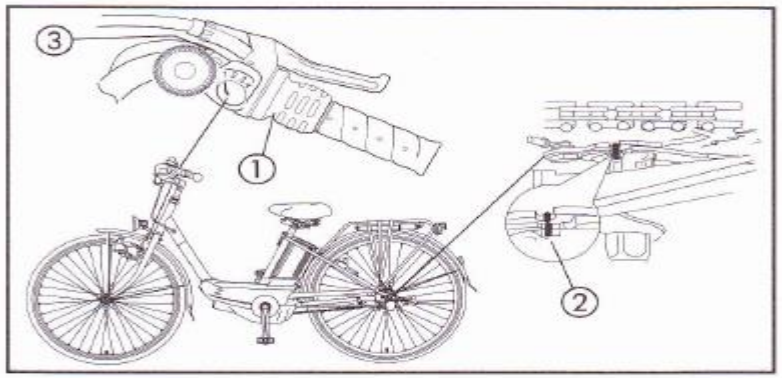
If the chain is in contact with the next sprocket, use the setscrew (3) by tightening the screw.



9.6 Nexus 7 system setting

CAUTION ! Read thoroughly the recommendations of use and maintenance from the manufacturer.
If you do not have these recommendations, ask your MBK retailer.

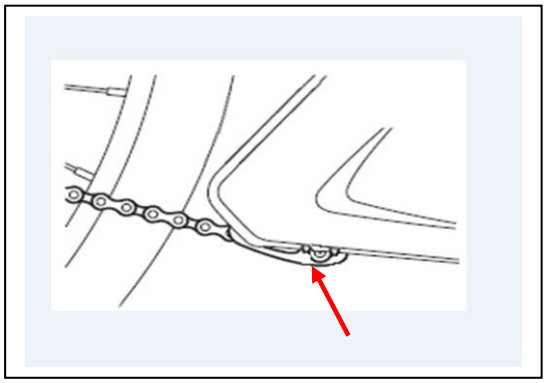
Setting of the gearshift :
- Place the gearshift grip on position 4
- Adjust the rear gearshift by screwing or unscrewing the jogwheel.
- The adjusting will be correct when the 2 markers on the hub are aligned. If it is not the case, then use the jogwheel.



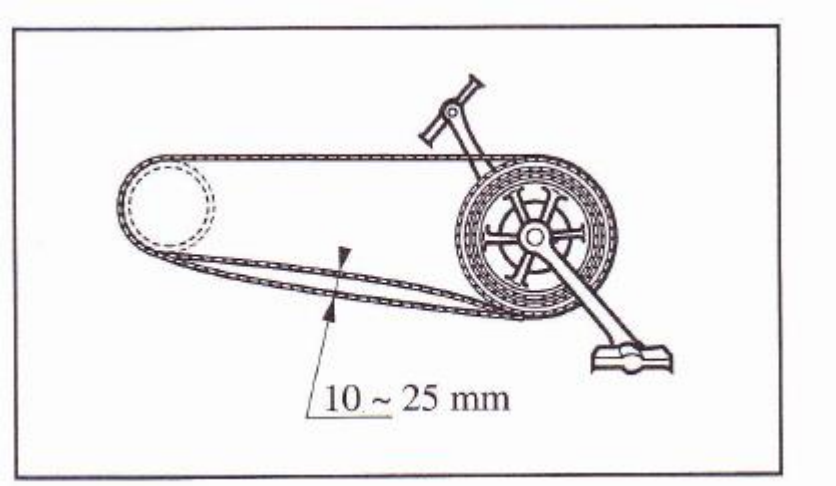
1/ Gearshift grip
2/ Setting markers
3/ Setting jogwheel

10/SETTING FOR THE CHAIN TENSION

The AXION bikes are equipped with an automatic setting system for the chain tension.
We recommend you to check the good functioning of the chain tension device to make sure that the tension is in the correct values between 10 and 25mm in the middle of the chain.



Automatic chain tension device



11/THE LIGHTING

The Front and Rear lighting of your Axion is a LED system which is powered by the assistance system battery.

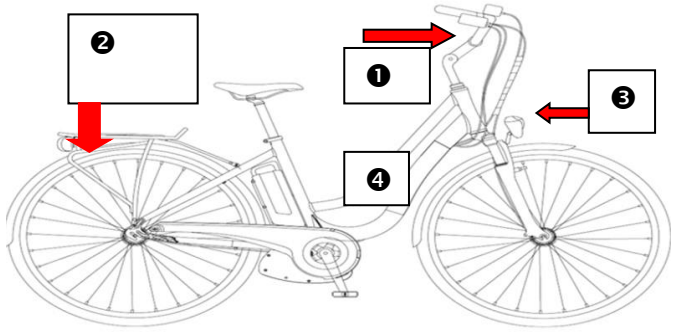
11.1 Operation

To use the Front and Rear lighting in operation :
- Switch on the assistance system controlbox.
- Push on the lighting button on the controlbox.

NB :
The Front and Rear lights's ignition is automatic if the lighting button position is on « ON ».
If one of the 2 lights do not function, control that the switch for the concerned light is not on « OFF ».

WARNING :
The lighting is powered by the battery. Before each use, make sure that the capacity (indications on the controlbox and the battery) allow you to drive with a safely lighting during your ride. .

WARNING :
Before each use, make sure that the passive safety elements, the pedal retroreflectors are clean and still there.



Composition of the lighting system :

1. Controlbox
2. Rear light
3. Front light
4. Battery

NB : If the bike do not move during 5 minutes when the assistance system controlbox for the lighting is switch on, the lighting system will automatically stop.

WARNING :
The lighting is powered by the battery. When the residual capacity of the battery is 0%, the lighting system will automatically stop.

12/KICKSTAND OF THE BIKE

Your Axion is equipped with a side kickstand used for parking your bike.
You can easily adjust it with the setting device.

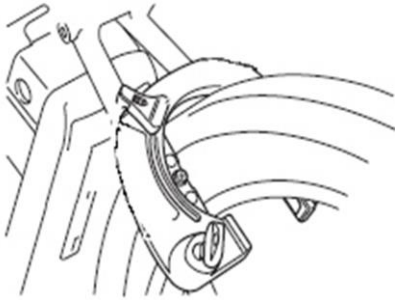
CAUTION !

If is not easy anymore to use the kickstand. Contact your MBK retailer.
NB : Recommended lubricant : multipurpose grease with lithium soap base.

13/THE ACCESSORIES

13.1 The antithief system (depending of the type)

The antithief system blocks the Rear wheel of your Axion.



Operation principle

1/ Turn the key and lower the locking device. Make sure there is no spoke on its stroke.

2/ When the antithief system is locked, remove the key.

3/ To open again the antithief system, repeat the operation the other way around.

4/ The antithief system is also equipped with a wire so you can fasten your AXION to a fixed point.

WARNING :

Never forget to open again your antithief system of the Rear wheel and to remove the antithief system wire before taking again your Axion, otherwise some spokes could be damaged or broken.

13.2 The luggage rack

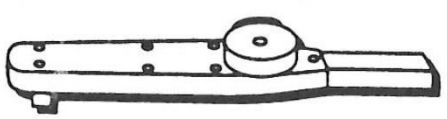
If you transport luggages on your rack, make sure before to drive that everything is fastened correclty and that nothing can get in contact with the rear wheel, the spokes or the transmission chain or any other element which could cause a loss of balance or a crash.
The total weight of luggages fastened on your rack must never be over 15 kg.
- The rack is not equipped with straps. Ask your MBK retailer for adequate straps for a safe transport of your luggages.

 **WARNING :**

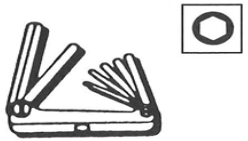
During the installation of some accessories or a change on the rack of your Axion, make sure :
- To respect only the manufacturers instructions.
- To respect the 15kg luggages limit on your rack. .
- To avoid the masking of the active and passive lighting devices of your Axion.

14/ NECESSARY MAINTENANCE AND SETTING TOOLS

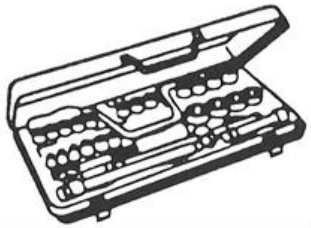
Below, you will find a list of tools that we recommend you to have or buy for your bicycle. These are necessary for the simple maintenance and the small repairs of your bike.



TORQUE WRENCH
Capacity 5 - 100Nm
Use this tool to tighten the components of your bike at the correct torque

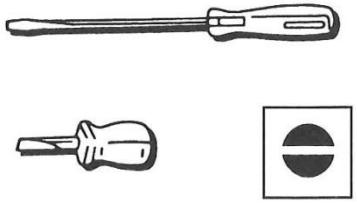


KEYS for « ALLEN » SCREWS
Use these tools to perform repairs and settings.
Dimensions 2 - 8 mm

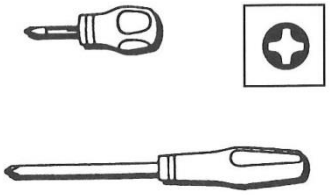


SOCKETS SET
Square 3/8
Use these tools to perform repairs and settings.
Dimensions 6 - 21mm

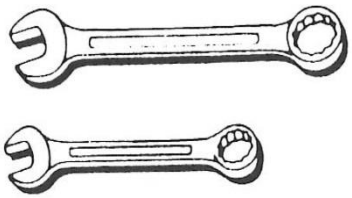
KEYS for « TORX » SCREWS
Use these tools to perform repairs and settings.
Size 15 - 40



SCREWDRIVERS
Use these scredrivers to perform the settings of your bike.
Blades (l : 2 3 4mm et) - L 50mm



CROSS-HEAD SCREWDRIVERS
Use these screwdrivers to perform the settings of your bike
Tips : PH1 & PH2
Tips : PZ1 & PZ2



COMBINATION KEYS :

Use these keys to perfom specific settings.
Dimensions 5 - 21mm

PUMP WITH PRESSURE GAUGE :

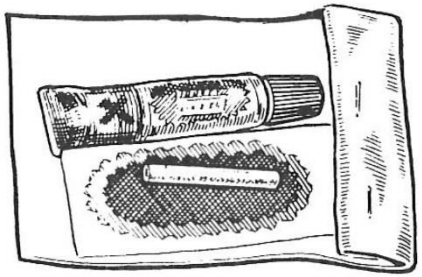
Use to inflate and control the pressure of your bikes tyres.

NYLON BRUSH :

Use this brush to perform cleaning of the components.

OIL CAN :

Use an oil can to perform lubrication of your bike.



REPAIRS KIT :

Use the kit to perform repairs of punctures.

BIKE TOOLKIT

This toolkit is necessary during your bike rides.

15/HOW TO REPAIR A PUNCTURE :

In case of a puncture :
- At first, check if the tube valve is not damaged or broken.
- Then check if a nail is not in the tyre tread which can reveal the position of the puncture.

Place your bike upside down, so the handlebar and the saddle are on the ground.

Be careful, this position can damage the handlebar and the saddle.

1/ Loosen the wheel
Depending on the bike model :
- Open the quick-release system or loosen the hub nuts
- Release the brake system

NB : For the Front wheel, remove the speed sensor by unscrewing completely the hub nut on the right side.

2/ Release the wheel
Make sure that the brake system is released before.

NB : Be careful, during all kind of work with a wheel equipped with a disc brake. The edges are sharp.

3/ Release of the tube
When the wheel is released :
- Remove the valve cap.
- Push and press on the tyre edge to get some space between the tyre and the rim.
- Place a tyre lever under the tyre edge inside the rim and be careful not to damage the tube between the tyre and the tyre lever.
- Maintain a soft pressure on the tyre lever.
- Use the procedure to insert a second tyre lever around 8 cm from the first one.
- Get the edge of the tyre over the rim and repeat the procedure with the third tyre lever.
- Now the whole tyre sidewall is out of the rim, get the tube out and try to localize the puncture while you inflate gently air in the tube.

4/ Tube repair

- Scratch the place where the hole is with a grater or some abrasive paper.
- Then coat the surface with some of the specific glue (dissolution).
- Let it dry one minut.
- Put the patch and press on it strongly during 30 seconds.

CAUTION !

A sticked patch on the tube is a troubleshooting.
If the patch is not sticked correctly or positioned, the tube can be damaged and cause loss of balance or crash.
Replace the repaired tube as soon as possible.

5/ Reinstalling of the tube

- Remove from the tyre the object which is the cause of the puncture.

NB : Make sure that the tyre do not have any cracks which demand a tyre replacement.
Reposition the tyre on the rim.
Position the tube by inserting the valve again (push the valve completely)

- Reinstall the tube and then the tyre with your hands without tools.
- Check that a part of the tube is not jammed between the tyre and the rim.

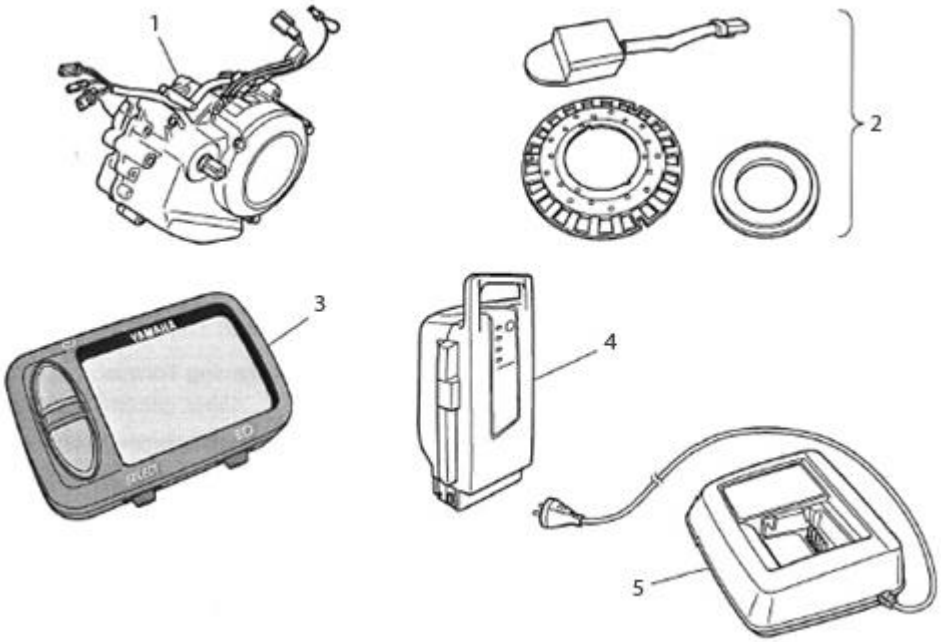
6/ Reinstalling the wheel on the bike

- Reinstall the wheel on the bike by following the reverse procedure of uninstalling.
- Inflate at the correct pressure.
- Tighten the nuts at correct torque or position the quick-release in « close » position.
- Check the adjustment of the brake pads on the rim part reserved to the braking.
- Check the proper functioning of the brakes on the reinstalled wheel.
- Finally check the proper functioning of the reinstalled wheel.

CAUTION !: If your bike is equipped with disc brakes, do not the disc, the caliper or the pads while reinserting the disc in the caliper.
Never use a brake lever as long as the disk is not properly insert in the caliper.

16/PRESENTATION OF THE ASSISTANCE COMPONENTS

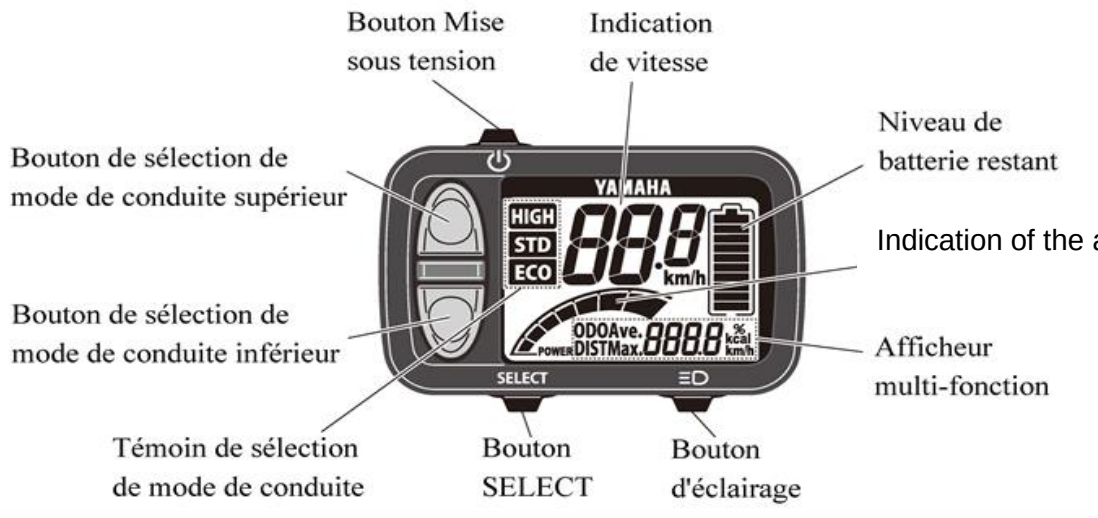
NB : The power unit and the speed sensor device will not be described in this manual.



1/ Power unit
2/ Speed sensor device positioned on the Front wheel hub
3/ LCD controlbox(depending on the bike model)
4/ Battery
5/ Battery charger

17/LCD CONTROLBOX :

17.1 Description of the LCD controlbox



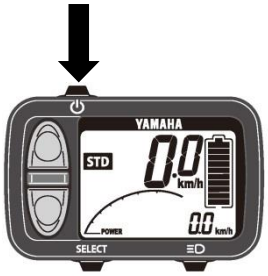
1/ Power button
2/ Lighting button to control :
- The red rear light
- The front light when the lighting button is « ON » position
- The retrolighting of the LCD display

3/ Assistance : 3 available modes with 1 complementary mode « vélo » (bike) without assistance
The choice of the assistance mode is performed when you press on the buttons ↓↑ positioned on the LCD controlbox.
(No ECO / STD / HIGH assistance) + indications on the display. No indication = « vélo » (bike) mode
- Button ↑ to choose a higher assistance mode
- Button ↓ to choose a lower assistance mode

4/ Use the « SELECT » button for the choice of different functions in the controlbox
5/ Multipurpose display for :
- % : Residual capacity battery level in percentage. This information is complementary of the remaining battery level on the display.
- ODO : Indication of the distance since the first time you used your AXION (not possible to reset)
- DIST : Indication of the remaining battery autonomy (in km) with the selected assistance mode
- AVE : Average speed
- Km/h : The current speed
- MAX : Maximum speed during your current bikeride
- K-CAL : The user's energy expenditure during the current bikeride

Nota : With a long pressure on the button « SELECT », you can reset the different indications.
6/ The indicator « POWER » informs you of the current speed that you want to get from the assistance system.

17.2 How to power on the LCD controlbox

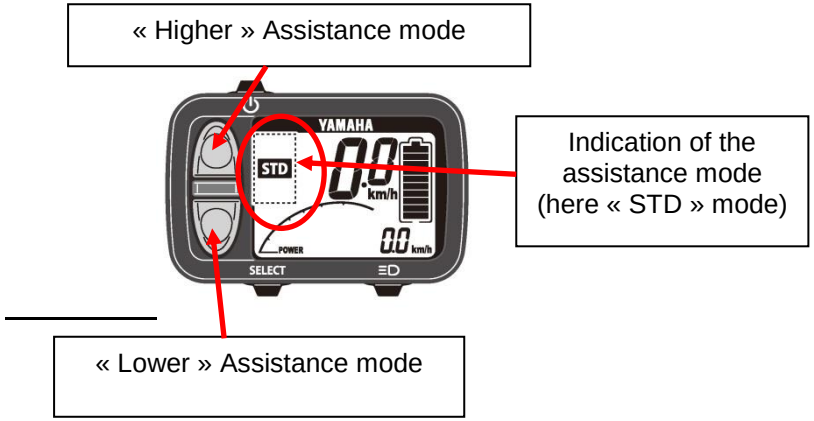


For the assistance system push the button « ON »
Immediately when the controlbox is on « ON », the display of the functions is enlighted completely during the autotest of the controlbox.
After the indicator is automatically positioned on « STD » and displays the available battery residual capacity.

WARNING :

When the assistance system's controlbox is powered, make sure that your feet are not on the pedals. One of your feet on a pedal can start the assistance system function and then you loose control of your bike.

17.3 How to choose the assistance mode



To change the assistance mode from « NO ASSISTANCE » to « HIGH » mode, just push on the selection button to choose a higher assistance mode. With the high or low indication, you can select as you want (higher or lower).

Any change of the assistance level will be displayed on the controlbox.
When the controlbox is powered and you do not have any indication on the LCD display, it is because you are on « bike » with no assistance.

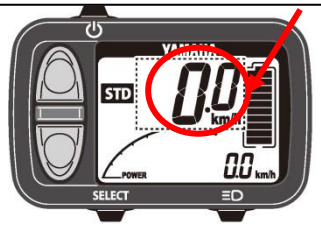
SELECTION OF THE ASSISTANCE MODE

According to the use of your AXION, you can select 3 assistance modes

ASSISTANCE TYPE	EXPLANATION	USE
« HIGH » MODE	Maximum assistance	Preferential use without any effort or when you drive uphill. This mode gives you a driving comfort but also a reduction of the autonomy of the battery.
« STANDARD » MODE	Normal assistance	Preferential use on flat roads with moderate difficulties. This mode is a compromise between the assistance system and the autonomy.
« ECO » MODE	« Economy » assistance	Use this mode for the longt distances. This mode offers you a maximum autonomy.
« OFF » MODE	No assistance mode	You are able to drive without assistance and you can still use the functions indicates on the controlbox (models with LCD display).

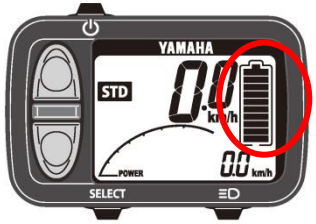
17.4 Display of the current speed

Display of the current speed (kmprhr) (mprhr)



The speed is displayed in kmprh (mprhr).
NOTA : If your speed is lower than 0,5Kmprhr, the displayed speed is 0,0Kmprhr.

17.5 Display of the battery's residual capacity

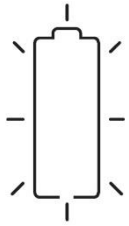


Display of the battery's residual capacity

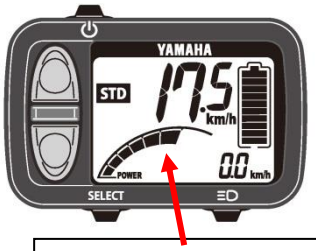
Display of the battery's residual capacity :
The controlbox is on « ON ». The display of the battery's residual capacity indicates the available battery capacity.
Nota : The value of a bar represents about 10% of the total capacity.

WARNING :
The lighting is powered by the battery. Before using your bike, make sure that the battery's residual capacity is sufficient, so you can drive safely with a lighting system in function during the selected distance.

17.6 Display of the LCD controlbox's residual capacity

Indications of the battery's residual capacity	Estimated capacity	Explanations
	**100-11%**	**When the multipurpose LCD controlbox is on « ON » and that the battery is fully charged, all the bars are visible. When the battery capacity is decreasing, a bar representing about 10% of the capacity will disappear from the display.**
 A slow flash of the last bar : 1 flash every 0,5 s	**10-1%**	**The remaining battery capacity is low** **CAUTION ! - *Recharge the battery as soon as possible* !**
 A quick flash of the « empty » display : 1 flash every 0,2 s	**0%**	**The battery needs to recharged. The assistance system is out of function. You can only use your AXION as a normal bicycle. *Recharge the battery as soon as possible !*** **NOTA : If you do not need the lighting system, switch off the controlbox.**

17.7 Display of the assistance system's current power



Display of the current power

The current power display gives an estimated current power of the assistance on a scale 1 – 8.
The assistance system is not in function when no display.
Any increasing of the power will gradually be displayed.

17.8 Complementary displays

Selection button for the displays

Available displays

You can access to some functions with the LCD display

AVE : Average speed for the selected distance
MAX : Maximum speed for the selected distance
TRIP : The selected distance all in all
ODO : The total distance since the first use of your Axion.
DIST : The remaining autonomy (in kilometers) estimated in accordance with the assistance mode used for the selected distance.
NB : The remaining autonomy will be different according to the conditions (hills, selected assistance mode, wind, etc...)
K-CAL : The energy expenditure of the user for the selected distance.
% : The battery's residual capacity in percentage

Nota : By pressing briefly the selection button, you can access to the different functions : AVE ➔ MAX ➔ TRIP ➔ ODO ➔ DIST ➔ K CAL ➔ %

By pressing the selection button more than 2 seconds, you can reset the different displays. Only the display of the total distance since the first use of your Axion « ODO » will remain.

a : AVERAGE SPEED ''AVE'' :

The « AVE » display represents the average speed in KMprHR since the last reset of the controlbox

b : MAXI SPEED ''MAX''

The « MAX » display is the maximum speed in KMprHR since the last reset of the controlbox

c : SELECTED DISTANCE ''TRIP'''

The « TRIP » display is the selected distance since the last reset of the controlbox

d : TOTAL DISTANCE ''ODO'''

The « ODO » display is the total distance since the first use of your bike when the controlbox is powered. You can not reset this function.

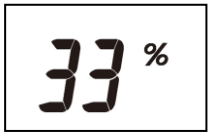
e : DISTANCE ''DIST'''

The « DIST » display is the estimated remaining autonomy (in kilometers) according to the assistance mode used during the selected distance.
NB : The remaining autonomy will be in accordance with the conditions of use (hills, selected assistance mode, wind, luggages, etc...)
If you use the « OFF » mode (no assistance), the display will be : « ….. »

f: ESTIMATED QUANTITY OF CALORIES BURNED « K cal »

This « Kcal » display indicates the quantity of calories burned since the last reset of the controlbox.

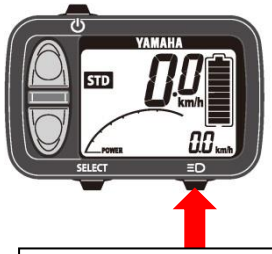
g: THE BATTERY'S RESIDUAL CAPACITY IN « % »



This « % » indicates the battery's residual capacity as a percentage. It is a complementary display to the visible display of the battery's residual capacity indicated by the battery on the controlbox. You can not reset it.

17.9 OPERATION OF THE LIGHTING

WARNING :
The lighting is powered by the battery. When the battery's residual capacity is 0%, the ligthing system stops automatically.

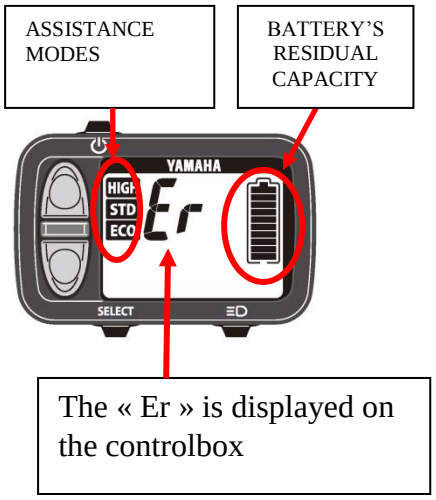


Lighting button

For the operation of the lighting, push on the lighting button.
By pushing on the lighting button :

- The Rear light is alight.
- The Front lighting is alight if the switch button on the front light is switched on.
- The retrolighting of the LCD controlbox is alight.

17.10 Display of the error codes



Your Axion is equipped with a selfchecking system of the assistance system.
If any failure or defect of the assistance system's operation, when the controlbox is powered, the display « Er » is displayed on the controlbox. The displays for the battery's residual capacity will flash in alternance when there is something wrong with the assistance system's operation.

CAUTION !:

If an error code is displayed, contact your MBK retailer

18/THE BATTERY

18.1 GENERAL

The battery of your AXION is a Lithium–Ion type.
This battery, lightweight and powerful with the following specifications :

37V 9,5Ah (352Wh)

- The battery performance decrease rapidly in some very warm or cold weather conditions.
- The full capacity of the battery is only possible after several chargings and dischargings
- The battery LI-ION looses naturally its charge.

18.2 THE AUTONOMY / RADIUS OF ACTION

The maximum autonomy is the selected distance with a 100% charged battery in the standard conditions on a flat and dry paved road with the ambient temperature between 15°C et 25°C, inflated tyres at the correct pressure and at a steady speed.

The autonomy with a fully recharged battery can be different depending on :
- the mode of driving and the conditions of use : town areas, urban or extraurban areas, the speed, the efforts, the starts, the stops, the frequency of the stops, the gradient of the roads, the conditions of the roads, the charge condition of the battery, the pressure of the tyres, the luggages and the maintenance.
- the under-inflated tyres which can reduce with more than 50% the selected distance.
- how often, the assistance mode is used at the maximum which reduce the battery's autonomy compared to a moderate or « economy » mode.
- the total charge of your bike : if you drive with a weight of 75kg, the autonomy will be 10 à 20 % lower than with a weight of 65kg.
- the hills, the direction and the power of the wind. Soft grounds can cause a loss of 20%- 30% of the autonomy.

The autonomy can be reduced by the specific condition of the battery (number of chargings, condition, etc…).
The autonomy can be reduced when using the bicycle in low or high temperature.

NB : The lighting is powered by the battery, this function can also reduce significantly the autonomy.

	AUTONOMY OF A FULLY CHARGED BATTERY - 37V 9,5Ah = 352Wh		
Road / Assistance level	ECO	STD	HIGH
FLAT ROADS *	60 - 100km	50 - 60km	35 - 55km
HILLY ROADS *	40 - 75km	35 - 50km	30 - 45km
MOUNTAINS ROADS *	25 - 40km	20 - 30km	15 - 25KM

* The autonomy values are with a weight of 65kg on the bike

18.3 Recommendations to increase the autonomy of your AXION

- Preferably use the assistance modes : économy (ECO) or standard (STD),
- In an environment temperature near the 0°C or higher than 25°C, the battery is not able to perform all its power and the autonomy can be reduced significantly.

Consequently the system operation can be alterated by this.

- Use the gears to start, to drive uphill, to drive on non paved roads
- Try to anticipate and drive as smooth as possible
- Contact regularly your MBK retailer for the maintenance of your EAV.

18.4 Operating lifespan of the battery

The lifespan of the LI-ION batteries can be estimated to a minimum of 600 full cycles of charging / discharging.
The majority of these types of battery, Lithium-Ion, can be subjected to a reduction of the autonomy performance after a large number of uses.
The aging of the battery depends on the uses conditions.
Generally, the energetic capacity will be reduced with 20 % - 30 % after 500 full cycles of charging and discharging.

18.5 Recommendations for an optimal use of the battery

- Charge fully the battery during the first uses.
- Preferably, perform full charging and discharging cycles. Try to space the full cycles of charging / discharging.
- Before a longer period of storage, your battery needs a half charging (only 2 lights alighted).

After a longer period of storage, your battery needs a full cycle of charging / discharging.

18.6 Battery maintenance and storage

If the display for the battery on the controlbox shows only one « unit », it means that the battery level is low and that a charging must be performed as soon as possible, so you avoid to have a lack of « necessary energy » for the « powering » of the assistance device.
Nota : If the battery is completely discharged, recharge the battery immediately after use.
If a discharged battery after use is not recharged immediately, the battery can be irremediably damaged.
NB : If you do not use a fully discharged or charged battery during a longer period of time, the battery will get deteriorated.


CAUTION ! If you do not recharge a completely discharged battery after use, the battery will be irremediably damaged.

18.7 Battery storage

If you do not use your Axion, during 1 month or more, we recommend you the following procedure.
After 2 weeks, we recommend you a storage of the bike with a half charged battery (only 2 lights alighted)
We recommend you to store the bike in a cool and dry place with no risk of contact with water with a T° between 10° - 25°C.
After 1 month, we recommend you to check regularly « the battery's residual capacity » : if only 1 light is alighted on the selfdiagnosing display, we recommend a 10 minutes recharging of the battery.
If the battery is stored on the bike, make sure that no function is switch on.

NB : If the battery pack is fully charged or discharged during the period of storage, the battery will be damged irremediably.
The charge of the battery decreases while selfdischarging.
The battery capacity decreases with the time and the use of it, but if the battery is stored in optimal conditions, the lifepan of it will be longer.

CAUTION !:	
After 6 months or more of storage, contact your MBK retailer, so your EAV can be checked. Ask for a recharging of the battery before use.	

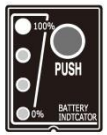
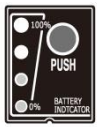
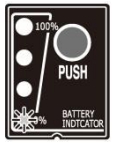
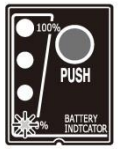
18.8 Battery recycling


The Li-Ion batteries can be recycled (EU Directive : 2006/66/CE)
Never throw away or burn an old battery. Just bring it to an appropriate collection system. Remember that your MBK retailer is also able to perform a reception of these kind of batteries.

19/DISPLAYS OF THE BATTERY'S RESIDUAL CAPACITY

19.1 Battery's indicator lights

The battery is equipped with a selfdiagnosing device for the indication of the residual capacity.
By pushing on the button « PUSH » placed on the battery and read the « available » capacity as following :

BATTERY INDICATOR LIGHTS	ESTIMATED RESIDUAL CAPACITY	STATUS
	**100-76%** **4 indicator lights alighted**	With an available residual capacity between 100% and 11%, the indicator lights will be switch off one by one.
	**75-51%** **3 indicator lights alighted**	
	**50-26%** **2 indicator lights alighted**	
	**25-11%** **1 indicator lights alighted**	
	**10-1%** **The lower indicator light flashes slowly (interval of 0,5 second)**	Low residual capacity. Recharge the battery very soon.
	**0%** **The lower indicator flashes rapidly (interval of 0,2 second)**	The assistance system do not receive energy from the battery. Recharge the battery as soon as possible.

20/BATTERY RECHARGING PROCEDURE

20.1 : Presentation of the battery charger and the battery

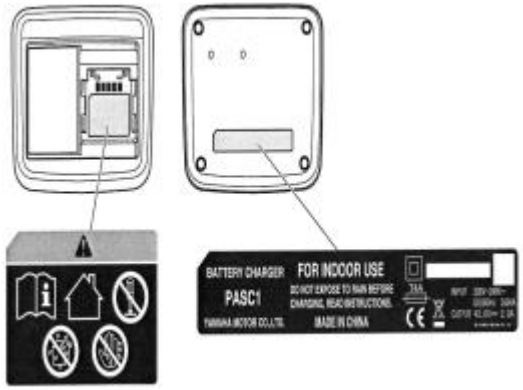
a/. Charger **:**

Type	AC 220-240V 50-60HZ
Output tension :	Max. 42VDC 2,0A Max.
Charging time :	Minimum 4 hours for a complete recharging at 20°C.
Ideal charging T°:	15°C - 25°C

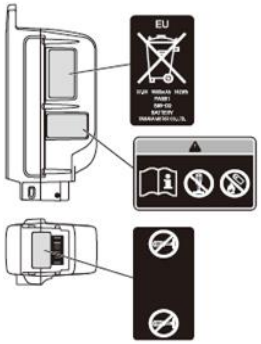
b/. Battery **:**

Battery type :	Lithium–Ion battery, PASB1 type.
Specifications :	37v 9,5A = 352 Wh

Charger Set

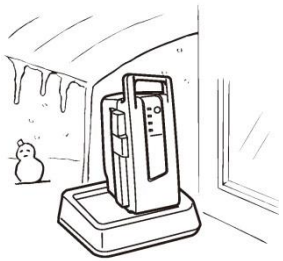


Battery Set



20.2 Safety precautions to take when recharging the battery

- Perform the battery recharging at an environment temperature between 15° and 25°C.
- While recharging, do not position the charger / battery set in sunlight.
- Perform the battery recharging in a ventilated place, with smoke or fire alarm.



GB : Significant use
GB : Recharge immedaitely after use

Do not place the battery and the charger near some water. To avoid any risk of electric shock or shortcircuit, the charger and the battery must never be we or humid.
Make sure that young children can not access to the battery and the charger.
- To recharge the battery, make sure that the plug of the charger is directly connected to a socket with a grounding 220V ~ 50Hz, protected by circuit-breaker.
An uncorrect grounding can cause an electrocution or a shortcircuit.
- Use only the charger provided by MBK to recharge the battery of your Axion.
- Do not place the battery and the charger nearby some heat sources.

- During the use of the battery charger, respect all the safety rules concerning the electric equipment in general.

- During the battery recharging, keep the battery and the charger away from children and animals.

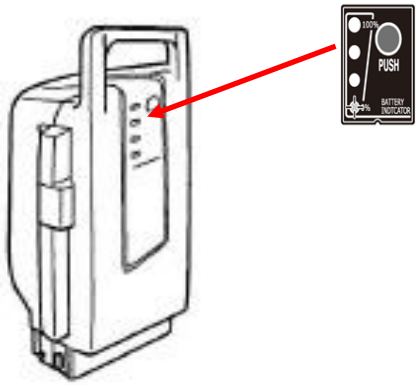
- If the battery / the charger are damaged (due to a fall, a shock, etc...), do not try to reposition the battery on the charger and do not try to connect the charger plug to the power supply. This could cause an electric shock or a shortcircuit.
In this specific case, contact your MBK retailer to check the battery and the charger.
- Do not try to disassemble or to repair the battery or the charger.
- Do not use the battery charger near some flammable materials.
- Do not touch, do not cover the charger and the battery while recharging the battery : The T° of the battery pack can be from 40°C to 70 °C.

WARNING :
If any malfunction occurs during the recharging process of the battery, disconnect the charger plug from the power supply and wait until the battery and the charger are cold before trying to do anything.

20.3 Battery recharging procedure

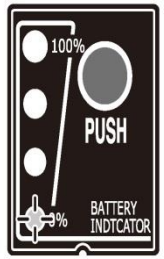
When the battery is on the bicycle.

① Check the battery's residual capacity by pressing on « PUSH » of the selfdiagnosing device placed on the battery.



Display of the battery selfdiagnosing device

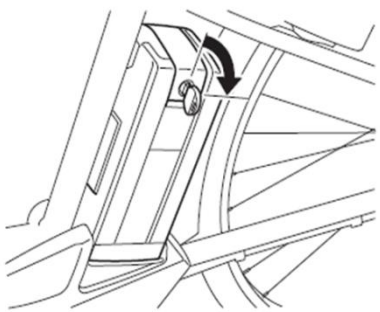
In the example, the displayed 0% flashes. It means that the battery's residual capacity is low : Recharge the battery as soon as possible.

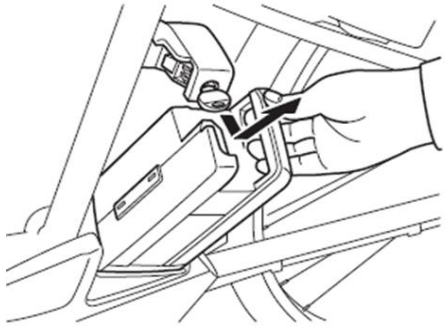


②/ Insert the key in the battery locking device placed on the Left side of the Axion.
Turn the key in « clockwise » direction « to release » it from its base. .

③/ Remove the Axion battery by :

- Holding the battery by its grip.
- Tilting the battery down.
- Removing the battery to take it away.



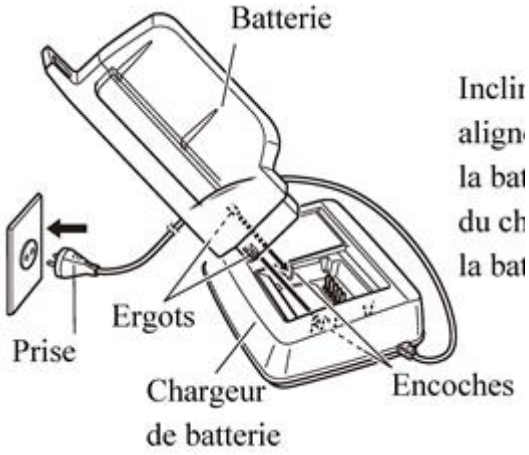


④ Connect the charger to a power supply socket 220V (⏦) 50Hz

WARNING :

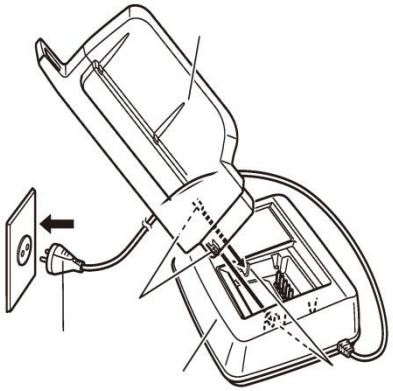
By connecting the battery charger to a different socket, tension or form can cause an electric chock or can damage the battery charger.

⑤ Take the battery to the charger, incline downwards the battery and align the positioned notches on the battery with their housings on the charger.



Incline the battery, align the battery fixing pins and the charger notches.
Finally, insert the battery in the charger.

⑥ Turn slightly the battery (see the arrow below) to lock the battery in the charger.
Immediately the recharging starts automatically.



Put the battery on the base of the charger by positioning the notches in their housings.

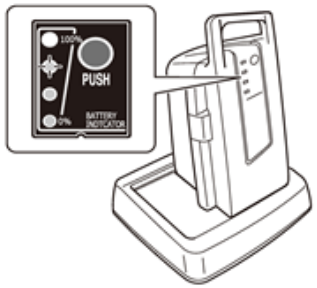
Turn the battery as shown on the picture on the left

⑦ Valid the status of the charger by checking the flash of the selfdiagnosing indicators of the battery.

Nota : When the battery is positioned on the charger, the lower indicator light flashes (interval of 0,2 second) and the initialising of the charge sequence starts. The process is starting and the battery recharging will start automatically.

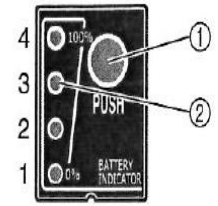
⑧ The indicators of the battery residual tension (selfdiagnosing) will be alighted one by one during the the battery recharging. The battery will be fully recharged when the 4 indicators will be alighted .
At th moment where the battery is fully recharged, the 4 indicators of selfdiagnosing will switch off.
Now you can remove the fully recharged battery, you can take it away from the charger.

NB : The cycle of the battery recharge is proportional with the discharging status of it. With a T° of 20°C, the average time will be about 4 hours for a complete recharging of the battery.



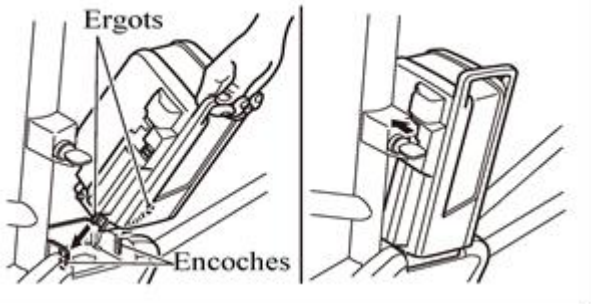
Press on the button « PUSH » ❶ of the battery selfdiagnosing device to know the residual capacity. When the 4 indicators are alighted, it means that the battery is fully recharged.

On



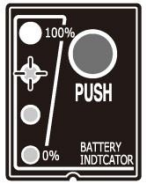
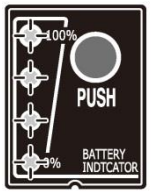
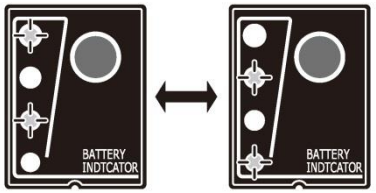
NB : When an interruption of the battery charge occurs during the process of charging, we recommend you to let the battery and the charger get cold.
So the temperature can be between 15° C and 25°C again. From now on, the recharging process will automaitically start again.
Moreover, the batterie recharging process will automatically be in « STANDBY » it the recharging environment T° is 0°C.

⑨ When the lock is unlocked, install the battery on the Axion. Make sure that no foreign matter are jammed between the receptacle and the electric switches positioned under the battery.
Align correctly the battery fixing pins with the housings of the « RECEPTACLE ». Push the battery in it until you can hear the click of the locking.



Nota : Be careful, do not caught your fingers during the repositioning of the battery.

20.4 Selfdiagnosing indicator lights during the recharging process

Selfdiagnosing indicator for the battery (battery's residual tension)	Status	Information
The alighted indicators indicate a reached recharging status. The indicator flashes when recharging.  E.g. : Battery charge between 50% and 75%	Recharging is ongoing	- During the recharging process, the battery capacity indicators are alighted one by one in accordance with the process. - When the recharging process is over, the 4 indicators are switched off. It means that the battery is fully recharged. - Disconnect the charger from the power supply. - Remove the battery from the charger when the battery is cold.
 The 4 indicators flash simultaneously	The battery mode is « standby »' (the recharging cycle is interrupted) This too high or too low.	The battery recharging will start automatically again when the T° has a correct value. **Nota :** We recommend you to process the battery recharging with a T° between 15°C and 25°C
 The indicators are alternately alighted	A malfunction is detected in the recharging process. A mlafunction of the charger or the battery interrupts the recharging. **Nota :** Did you start the battery recharging, just after you stopped ? If it is so, let the battery get cold and start the recharging again.	If the charger is too warm, we recommend you to disconnect it and let it getting cold in a cool and ventilated place. When everything is at the correct T° (0°C to 25°C), you can continue the cycle of recharging. If any doubt, contact your MBK retailer.

NOTA : If the T° inside the battery is too high, the charging cycle is automatically interrupted as a « protection of the battery ». While the charging process is interrupted , the 4 indicators flash alternatively. When the indicators stop flashing, check the battery's residual capacity and if necessary recharge the battery.

21/CHECK BEFORE USE

Before using your AXION, check imperatively the following points.

PARTS OF THE BICYCLE	OPERATION	CHAPTER
Front & Rear brakes	Check the functioning and the conditions of the components, the functioning sets, the condition and the cleanliness of the rims. Adjust and correct if needed.	CHAPTERS 8 & 23
Wheels & Tyres	Check the tightening of the wheels and their buckling. Check the pressure, the tyres wearing and condition.	CHAPTERS 7 & 8
Frame & Fork	Check the condition and the absence of shocks or damages.	-
Seatpost, Saddle, Stem & Handlebar	Check the torques of the seatpost, the saddle, the stem, the handlebar and their positions in accordance with the maximum heights.	CHAPTER 6 & 8
Lighting & Signalling (active and passive)	Check the cleanliness and the good functioning of the lighting. Check the presence and the cleanliness of the passive safety (pedal reflectors, Front & Rear reflectors). Check the battery charge to ensure the lighting according to the selected distance.	CHAPTER 11
Hubs, Fittings & Crankset	Check the absence of looseness, the tightening of the crankset arms and the pedals. If any failure, contact your MBK retailer.	CHAPTER 6
Gearshift system / Derailleur	Check the condition, the functioning and the wires.	CHAPTER 9
Connections & Fasteners	Check all the connections and fasteners.	-
Battery	Check the condition and the battery charge. Check if the battery charge is sufficient for the selected distance safely.	CHAPTER 18

NB : Perform the checks before using your bike. A complete check requires only few minutes, but it ensures a higher level for the user.

WARNING : If an element do not operate correctly during the check before use, let a MBK retailer check the bike.

22/TIGHTENING TORQUES TO RESPECT

During the checks, respect imperatively the correct torques.

DESIGNATION	Ø & SCREWS SPECIFICATIONS	TIGHTENING TORQUE IN NM
CRANKSET ARMS	M 8x125	40 Nm
PEDALS	9/16x20T	35 Nm
STEM ‘’Ahead’’ « Protector »	M6x100	7 Nm
POTENCE « Expander »’	M8x125	18 Nm
POTENCE « Protector »	M6x100	10 Nm
POTENCE « Protector »	M5x80	6 Nm
Fixing screws handlebar	M6x100	10 Nm
	M7x100	12 Nm
	M8x125	20 Nm
Fork (tightenings nut)	5/16x24T	28 Nm
Fastening screws of the seat post clamp and the saddle rails	M6x100	10 Nm
	M7x100	12 Nm
	M8x125	22 Nm
Kickstand fixing screws	M10x150	30 Nm
FRONTWHEEL AXLE With quick-release system	5/16x24T	35 Nm
	Set the nut and tigten	Tighten at 1,8 Nm and lock the quick-release
REARWHEEL AXLE With quick-release system	3/8x24T	35 Nm
	Set the nut and tighten	Tighten at 1,8 Nm and lock the quick-release
Front brake caliper on support	M6x100	10 Nm
Rear brake caliper on support	M6x100	10 Nm
Brake caliper support on the frame	M5x100 M6x100	6 Nm 10 Nm

Screw Ø (mm)	Standard tightening torque in Nm
Ø 4	**2Nm**
Ø 5	**4Nm**
Ø 6	**10Nm**
Ø 7	**12Nm**
Ø 8	**20Nm**
Ø 10	**30Nm**

23/MAINTENANCE & SMALL REPAIRS

CAUTION !

If you are not familiar with the maintenance and small repairs procedures, let them be carried out by your MBK retailer.

23.1 Check and lubrication of the wires

Check the condition and the functioning of all the wires before use.
I needed, perform the lubrication of the wires and their ends.
If a wire is damaged or the functioning of it is « not easy », let it be checked by your MBK retailer.

RECOMMENDED LUBRICANT : Multipurpose oil spray

WARNING :

A damaged wire housing compromises the optimal wire function creating corrosion and damages. In this case, let your MBK retailer replace the wire and the wire housing to avoid a critical driving situation.

23.2 Check and lubrication of the Front & Rear brake levers

Lubricate the moving parts of the brake levers (Front & Rear) in accordance with the specific periodical maintenance.

RECOMMENDED LUBRICANT : Multipurpose oil spray

23.3 Check and lubrication of the side kickstand

Check the good condition of the kickstand. Lubricate the moving part if needed and in accordance with the specific periodical maintenance.

RECOMMENDED LUBRICANT : Multipurpose grease with a lithium soap base

23.4 Lubrication of the transmission chain

You must clean and lubricate the transmission chain and the tension device in accordance with the specific peridical maintenance.
If you do not carry out this maintenance, the wearing of these parts will be rapid. .

CAUTION !
Do not clean the transmission chain with steam or high pressure jet. Only with appropriate detergents.
Lubricate the chain after a cleaning operation or after a driving in rain.

RECOMMENDED CLEANING DETERGENT : Chain detergent in spray RECOMMENDED LUBRICANT : Specific transmission chain's oil spray.

24/PERIODICAL MAINTENANCE

The enjoyment, the pleasure with your MBK bike and the longevity of it depend on the carried out maintenance level.
The MBK retailers have the appropriate knowledges, tools and updated technical documents, so they can perform the correct maintenance recommended by the manufacturer.

The specific maintenance periods do not mean that you must not check or contact your MBK retailer when needed from time to time.
NB : If any doubt, contact your MBK retailer. Your retailer will always give the answers to your questions concerning your Axion and the maintenance of it.

It is your responsibility to ensure that the maintenance operations are carried out according to the specific periodical maintenance operations and the correct registration of these.

WARNING :
Your AXION has been designed, manufactured and tested in accordance with strict rules assuring you a safely driving and use of your bike.
When replacing components / parts, we recommend you to use only the original parts especially for the safety components.

DESIGNATION			PERIODICITY												
				Distance at the odometer (x1000km)											
	PARTS & COMPONENTS	**CHECKS OR OPERATIONS TO CARRY OUT**	Before use	0,2	2	4	6	8	10	12	14	16	18	20	Annual control
BICYCLE PART	Frame & Fork	*Check the fasteners and components.Check the absence of shocks, crackings or damages	X	X	X	X	X	X	X	X	X	X	X	X	X
		*In case of a fork with suspension, ask your MBK retailer.		X	X	X	X	X	X	X	X	X	X	X	X
	All fasteners	Check the tightening.	X	X	X										X
	Stem & Handlebar	*Control of the condition, the functioning and the tightening.	X	X	X										
	Fittings	*Control the condition and tightening. Lubricate every year.		X	X										X
	Saddle, seatpost & clamp	Control the condition and tightening. Lubricate every year.	X	X	X	X	X	X	X	X					X
	Crankset arms, chainrings & pedals L/R	Cleaning, control the condition and tightening. Lubricate the pedal axles.	X												X
				Lubricate every month											
	Transmission chain	Cleaning, control the wearing condition, tension of the chain and tension device. Lubricate the chain.	X	X											
				Lubricate the chain every month											
		*Replace if needed.		**Replace every 2 years or 2000 km**											
	Sprockets & Crankset	Cleaning, control of the condition, weraing and lubrication.	X	X	X	X	X	X	X	X	X	X	X	X	X
				Check the wearing every 1000 km											
	Derailleur & gearshift system	*Check the functioning, the condition, clean and set.		X	X	X	X	X							X
		Lubricate the sets		**Lubricate every month**											
	Front & Rear wheels	*Control the condition, the absence of shocks. Check the tension of the spokes.	X	X	X	X									X
	Quick-release & wheels tightening	Control the condition, fasteners and the correct position.	X	X	X	X									
	All types of brakes FRONT & REAR	*Check the functioning, clean and set if required. Check the condition, the wearing of the brake pads and brake shoes.	X	X	X	X									X
		*Replace the pads or shoes if needed.	X	**Replace when the limit is reached**											
		*Check wires condition. Lubricate the wires.		X	X	X									X
				Lubricate every month											
		Replace the wires		**Replace every 2 years**											
	« Roller brakes »’	*Check the absence of any unusual noise. Lubricate every year	X	X	X	X									X
				X	X	X									X

	Hydraulic brakes	Check the condition and the functioning	X	X												X
		*Check the functioning of the brake grips. Lubricate every month	X	X												X
				Lubricate every month												
		*Check the condition of the hose seals, the leakages and eventual damages.	X	X												X
		Check the wearing of the brake pads and the disc.	X	**Replace when the limit is reached**												
		Control the level of the brake fluid.	X	X	X	X	X	X	X							X
		*Replace the brake fluid		**Replace every 2 years**												
	Brake hoses	Check the absence of damages and crackings	X	X												X
		*Replace the hoses		**Replace every 2 years or when damaged**												
	Fixing screws of the brake calipers (Front & Rear)	Control of the tightening	X	X	X	X										X
	Tyres & tube	Check condition, wearing and pressure	X													X
		Replace the tyre or the tube		**Replacer when the limit is reached or damaged**												
	Lighting	Check the functioning	X	X												X
	Retroreflecting devices	Control the condition	X													X
	Bicyle bell	Control the condition, the fastenings and the functioning	X	X												X
	Side kickstand	Control the fastenings, the functioning. Lubricate the moving parts	X													X
				Lubricate every month												
	Mudguard, chainguard, luggage rack	Control the condition, the fastenings, correct if needed	X													X
ELECTRIC ASSISTANCE SYSTEM	Controlbox	Check the fastenings and functioning	X		X											X
	Wiring harness	*Check the electric cabling and the fastenings. Check the connections		X	X											X
	Battery lock	Check the functioning. Lubricate if needed	X	X												X
	Battery	*Check the battery condition and the connections	X													X
	Assistance system	*Check the tightening and the fastenings	X	X												X
		*Checkfor unusual noise	X	X												X
		*Check the chain ring. Clean, check the wearing	X	X												X
		*Control the chain tension system. Lubricate.	X	X												X
																X

NB:

- ***The annual maintenance check is not necessary if the periodical checks are carried out in the course of the year***.

- The maintenance periodicities are only advisory under normal conditions of use. If any doubt, contact your MBK retailer.
- The maintenance of the elements marked with an asterisk can not be performed without the correct technical data, knowledges and correct tools, must be carried out by a MBK retailer.

 **CAUTION !** The tyres and the brakes must never be in contact with oil or grease.

25/CARE AND STORAGE OF THE AXION :

We recommend you to clean your AXION if needed and especially if you have been driving in wet weather or in other conditions requiring a cleaning of your bike.
A regular cleaning followed by a lubrication of the components will contribute to the maintenance of your AXION and a longer lifespan.

25.1 Cleaning

1/ Remove dirt with a soft cloth moistened with water and a neutral detergent.
2/ Rinse with a cloth moistened only with clear water.
3/ Dry with a soft and clean cloth.
4/ Use grease and lubrication on the sensitive surfaces.

NB : Never use agressive cleaning products or hard sponges otherwise there is a risk to scratch, discolor or damage the plastic and painted surfaces.

 **CAUTION !**

Never use a high pressure system for the cleaning / washing of your Axion . Otherwise there is a risk of water infiltrations which damage the assistance systems, the controlbox, the electrical components, the connections, the bearings seals of the wheels and the fittings.

25.2 Information concerning the use of the AXION in an agressive environment

When using your Axion on salted roads or nearby the seaside, the water with seasalt and the salt on the roads in winter increase the rate of corrosion.
After each use of your bike in this type of environment, we recommend you to :
1/ Follow the above mentioned cleaning procedure.
2/ Protect the bike / the vehicle from the corrosion on all the metal surfaces and the sensitive surfaces.
3/ Use grease for the wires and the moving parts.

25.3 After the cleaning

1/ Dry the AXION with an absorbent cloth.
2/ Use a wax protection product on the painted surfaces.
3/ Make sure that the bicycle is completely dry before you cover / store your Axion.

CAUTION !

- Spray moderately the oil / the wax and wipe off any excess.
- Never spray the plastic or rubber parts with oil.

WARNING :

Make sure that you have not sprayed oil or wax on the vrakes or the tyres.
- If needed, clean the rims, he discs and bake shoes with a specific cleaning product for brake systems.
- Clean the tyres with warm water and a solvent if needed.

Finally, carry out a driving test to control the braking efficiency and the behaviour of your bicycle.

25.4 Storage

When you do not use your bike, store your bicycle in a place without any contact with the snow, the rain, the sun, etc.... The snow and the rain can cause corrosion. The UV rays from the sun can discolour the paint or crack the plastic or rubber parts of your AXION.

CAUTION !

- If you store your AXION in a place with a bad ventilation or you cover it with a tarpaulin while the bike is wet, the rate of corrosion will increase. And then there is also a risk of damage for the electrical components and the connections**.**
- To limit the damages caused by the corrosion, we do not recommend you to store your Axion in some wet or closed places.

a/ Short period of storage

Store your Axion in a dry and ventilated place. According to the storage conditions (e.g. too much dust, etc...), you can cover your bicycle with a tarpaulin.

CAUTION !
Do not store your Axion while the battery is completely discharged.

b/ Long period of storage
With a long period of storage (60 days or more) of your AXION, you have to respect preventive measures to protect your bicycle
1/ Clean thoroughly the bicycle.
2/ Grease all the wires and the sensitive parts with a risk of corrosion.
3/ Recharge the battery only halfway (50%) of its capacity (see conditions concerning the battery storage)

CAUTION !

In the case of a 6 months storage, recharge the battery completely before using it again.
In the case of a 6months or more, contact your MBK retailer who will check your EAV.

26/RECYCLING

You have bought your AXION, because you are a user who respect the environment.
Once, the majority of the components and your AXION are recyclable.
Bring only your AXION to an approved recycling center, ensuring the correct recycling of your bicycle.

26.1 The battery

The Li-Ion are recyclable (EU Directive :2006/66/CE)
Do not throw away a used battery, do not burn it, bring it only to an approved reccyling center. If not possible, bring it back to a MBK retailer wo knows about the recycling of these batteries.

26.2 Recycling of the Axion's parts / components

Metal or plastic components :
Bring them to your local waste collection site or your MBK retailer.

26.3 Recycling of your Axion's electrical components

All electrical components :
Bring them to your local waste collection site or your MBK retailer.

27/GENERAL WARRANTY TERMS

27.1 Commercial warranty

a/ Warranty period :
Your AXION is under a contractual warranty :
- 2 years (24 months) from the purchase date of your bicycle.
- 5 years (60 months) for the frame from the purchase date of your bicycle.

b/ The MBK warranty covers what ?
During the warranty period, the manufacturer MBK guarantee the free replacement of all the Axion parts with a material failure or uncorrectly installed in accordance with the terms of the contractual warranty for this bicycle.

27.2 List of the components under warranty

PARTS	UNDER WARRANTY	OUT OF WARRANTY
SADDLE	Clear break of the seat post tube or rails Break of the saddle.	Tear of the surface. Consequences due to a non-respect of the manufacturer's recommendation concerning the maximum limit for the seat post tube.
STEM	All technical problems	Loss of the part. Consequences due to a non-respect of the manufacture's recommendations concerning the maximum limit for the stem.
FRAME	Brake supports , housings stops, saddle clamp, unsolded tubes (without shocks)	Deformations due to a shock or an abusive use.
FORK	Fork's tube or unsolded supports	Bent fork legs, deformations due to a shock. Fork steerer and threads damaged. Due to an abusive use.
WHEELS	Blocked hub or rim failure.	Wobbled rim, flat or shock on rim. Wheel axle bent
TYRES	Bead wire rupture, Crackings or unusual deformations of the tyre tread.	Tyre wearing or puncture
GEARSHIFT AND GEARSHIFT LEVERS	Fastenings clamp breakage	Loss of the nuts, strokes, shocks, broken or damaged wire, wire housing (lack of lubricant). Damages caused by shocks, crash or accident. Break of thederailleur hanger
FREE WHEEL	Manufacturer failure, too much clearance	Seized, rusty, usual wearing
CHAIN	Manufacturer failure	Wearing or wrong maintenance
BRAKE LEVER TRANSMISSION	Components failures not due to shock or a components break	Components seizing. Wearing of the pads, broken or damaged wire. Wire housing without lubricant. Damaged / broken hoses. Damages due to shocks, crash or accident.
CRANKSET	Clear break of a crankset arm	Bent crankset axle. Crankbox wearing, loss of the crankset arms caps, break of the axle due to a shock
PEDALS	Hub failure	Reversed installation (damaged thread or internal screwing on the crankset.
BATTERY	Malfunction	Damage due to a wrong use or caused by a crash or shock. Normal wearing
BATTERY CHARGER	Malfunction	Damage due a wrong use or due to a crash or shock.
CONTROL DISPLAY	Malfunction, display errors	Support break. Break / shock of the display.
LIGHTING SYSTEM	Malfunction	Break or damaged

Maintenance after :...................KM DATE :... RETAILER STAMP Model :............................. Frame Nr. :....................	Maintenance after :...................KM DATE :... RETAILER STAMP Model :............................. Frame Nr. :....................
Maintenance after :...................KM DATE :... RETAILER STAMP Model :............................. Frame Nr. :....................	Maintenance after :...................KM DATE :... RETAILER STAMP Model :............................. Frame Nr. :....................
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Maintenance after :……..KM DATE :……..	Maintenance after :……..KM DATE :……..
RETAILER STAMP	RETAILER STAMP
Model :…… Frame Nr. :……	Model :…… Frame Nr. :……

28/PRODUCT SPECIFICATIONS

GENERAL SPECIFICATIONS				
Dimensions	**OVERALL LENGTH**		2 ,00 M	
	OVERALL WIDTH		0,65 m,	
	SADDLE HEIGHT		0,90 m	
	WHEELBASE		1,10 m	
	TYRES DIMENSION		700x38c or 28' x2,00' depending on the model	
Weight	**EMPTY WEIGHT of the bicycle**		23 - 29kg depending on the model	
	AUTHORISED MAX WEIGHT of the luggages		15kg	
	AUTHORISED TOTAL WEIGHT (driver, luggages and accessories)		100kg	
	TOTAL LADEN WEIGHT (bicycle, driver, luggages and accessories)		130kg	
TECHNICAL SPECIFICATIONS				
Moteur	**Type**		DC Motor / Brushless Type	
	Nominal Output		36V 250w	
Performances	**Range of speeds while pedaling assistance with the « longest » speed ratio. '**	**Proportional assistance**	Between 0 - 15 km/h	
		Assistance in decrease	Between 15 - 25 km/h	
	Selected distance with a battery recharging		Between 20 KM - 90 KM depending on the selected distance, the assistance mode and the weight of the vehicle / bicycle (e.g. Cyclist weight 65kg with an outdoor temperature of 20°C).	
Battery	**TYPE**		PASB1	
	SPECIFICATIONS		LITHIUM-ION (LI-ION) 37V 9,5Ah 352Wh	
Mini / Maxi temperatures for the battery unit	**CONDITION**		MINIMUM TEMPERATURE (°C)	MAXIMUM TEMPRATURE (°C)
		CHARGE	15°C	25°C
		USE	10°C	25°C
		STORAGE	10°C	20°C
Charger	**TYPE**		AC 220-240V 50-60HZ / output 42VDC 2,0A	
	RECHARGING TIME		Minimum 4hours for a complete recharging at 20°C	
Gearshift			Depending on the model : NEXUS 7 speeds or external derailleur 9 speeds	
Transmission system			Chain system with automatic tension system	
Brake system		**FRONT**	Depending on the model Brake system : Classic brake shoes, roller brakes or disc brakes	
		REAR	Depending on the model Brake system : Classic brake shoes, roller brakes or disc brakes	
Tyres pressure – Front & Rear			350 - 400kpa or 3,5 - 4,0kg/cm2	
Lighting system – Front & Rear			LED system powered by the battery and the controlbox.	