

# Challenge Spectre/Spirit 26in Front Suspension Bike Cross FXT300/FXT500 26in Front Suspension Bike

Assembly Manual

608/6224  
620/9300  
618/0254  
604/8097



**Important – Please read these instructions fully before starting assembly**

These instructions contain important information that will help you get the best from your bike, ensuring safe and correct assembly, use and maintenance.

The image in the manual is for instruction reference only.

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NEED ANY HELP?

**CUSTOMER  
CARE HELPLINE  
01702 208187  
support@bspokeleisure.co.uk**

WE CAN GIVE YOU GUIDANCE ON  
ASSEMBLY,PARTS & TECHNICAL ADVICE

# Safety Information

**Important – Please read these instructions fully before installation**



**WARNING!** This Bike has been designed assembled and tested in accordance with the EN ISO 4210 to ensure your safety. To make sure the bike remains safe, it should only be used for recreational use. Under no circumstances should it be used for competitive cycling, stunting, jumping or acrobatic manoeuvres. This may result in serious personal injury and damage to the bike.

**WARNING!** This bike is only suitable for use by riders (including any panniers and/or luggage) with a weight of less than 100 kg (220 lb).

**WARNING!** Under no circumstances should the bike be ridden with loose or torn clothing.

**WARNING!** Always take extra care when riding in wet, foggy, windy or icy conditions. The brakes may not be as effective and the braking distances may be increased.

**WARNING!** When riding in the dark, always make sure that the bike is fitted with suitable reflectors and front and rear lights.

**WARNING!** When assembling the handlebars and stem to the bike frame, make sure the suspension forks are facing in the correct direction. If the suspension forks are assembled correctly, the brakes should be facing forwards. Failure to observe this warning may prevent the correct operation and may lead to personal injury and damage to the bike.

**WARNING!** When assembling the handlebars and stem, make sure it is inserted beyond the minimum insert mark. Failure to observe this warning may lead to a potentially unstable bike and may result in serious personal injury.

**WARNING!** When assembling the seat post, make sure it is inserted beyond the minimum insert mark. Failure to observe this warning may lead to a potentially unstable seat post and may result in serious personal injury.

**WARNING!** The front and rear tyres of the bike must be fully inflated before attempting to ride the bike. Under no circumstances should the tyres be inflated above the maximum pressure stated on the side of the tyres.

**WARNING!** Only inflate the front and rear tyres of the bike using a bicycle pump. Do not attempt to use another type of pump to inflate the tyres.

**WARNING!** Always wear a cycle helmet when riding the bike.

**WARNING!** The saddle height and handlebars are secure, set to a comfortable riding position and do not exceed the minimum insertion mark. The rider when seated should be able to reach the floor with their tip toes and be able to reach the brakes and handlebars without over balancing.

**WARNING!** Please be aware of the specific risk of entrapment during normal use and maintenance on the front/rear wheel, chain and sprocket.

**WARNING!** This bike is not suitable to add bike trailer.

**WARNING!** The rider shall follow the national legal requirement when use on public roads. (e.g. Lighting and reflectors)

**WARNING!** Safety critical components should be replaced using genuine replacement parts. This bicycle is not suited for extreme use such as competitions, jumping, drop-offs or stunting. The rider must be aware that intensive use can result in damage to the frame, forks, wheels and other components of the bicycle that may affect its safety.



# Safety Information

Important – Please read these instructions fully before assembly



**CAUTION!** The safety and smooth running of the bike can only be preserved with regular maintenance. Always ensure the bike is maintained in accordance with the supplied maintenance manual.

**CAUTION!** Only use suitable tools to assemble the bike. The use of unsuitable tools may lead to personal injury and damage to the bike.

**CAUTION!** Always ensure all packaging is removed from the bike before assembly and use. Failure to remove the packaging may prevent the correct operation and may lead to personal injury and damage to the bike.

**CAUTION!** When assembling the bike frame, make sure all the cables are free to move and are not tangled. Failure to observe this caution may prevent correct operation and may lead to personal injury and damage to the bike.



**IMPORTANT!** Always take care when removing the packaging to prevent damage to the bike.

**IMPORTANT!** Before assembling the bike, check all the parts indicated in the manual are in the box. Inspect the parts for signs of damage. Do not assemble the bike if you observe any damaged components.



**NOTE!** The threads on the left and right pedals are different. To prevent damage to the threads, only tighten the pedals in the direction indicated on the stickers.

**NOTE!** Always recycle the packaging in accordance with local recycling schemes.

**NOTE!** The pedals and crank arms have colour coded stickers to indicate which pedal matches which Crank Arm.

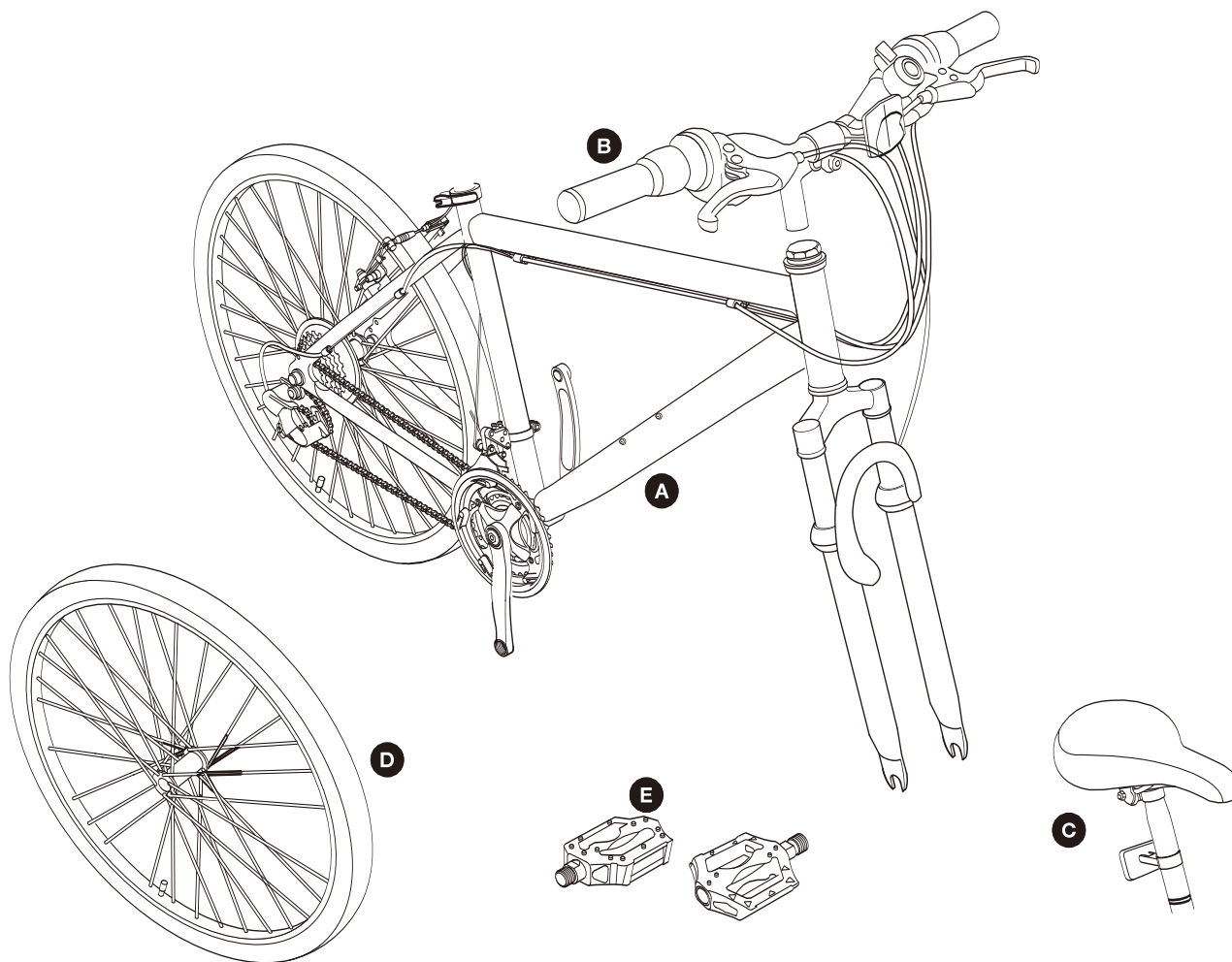
**NOTE!** Locate the 'direction of rotation' arrow embossed on the side of the tyre. When the front wheel is assembled, the arrow should be pointing in the direction that the wheel will rotate.

## Recommended tightening information:

Part	Torque (Nm)
Front Wheel Nuts	22-25 Nm
Rear Wheel Nuts	25-29 Nm
Handlebar Clamp Nuts	12-14 Nm
A-Head Clamp Bolt	10-14 Nm
Seat Clamp Bolt or Nuts	16-18 Nm
Seat Post Clamp Allen Bolt	8-10 Nm
Brake Cable Pinch Bolt	6-8 Nm
Crank Bolt or Nut	45 Nm
Pedals	40 Nm
Quick Release	Tight Enough to Secure(150-200N)
V-Brake Brake Blocks	8-10 Nm

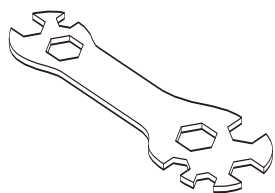
# In the Box

## Parts

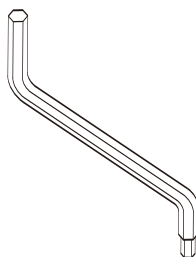


- A** Bike (supplied with rear wheel assembled)
- B** Handlebar and stem
- C** Seat post and saddle
- D** Front wheel
- E** Pedals (supplied in separate box)

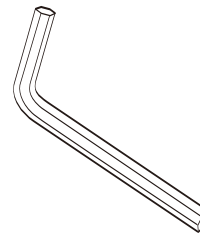
## Tools



Multi tool (supplied in separate box)



Hexagonal key (supplied in separate box)



M4 spanner (supplied in separate box)

# Assembly

## Step 1



**IMPORTANT!** Before assembling the bike, check all the parts indicated in the manual are in the box. Inspect the parts for signs of damage. Do not assemble the bike if you observe any damaged components.

**IMPORTANT!** Always take care when removing the packaging to prevent damage to the bike.

1. Remove the bike from the box and carefully remove all packaging. The following types of packaging are used to protect the bike during transit:
  - Cardboard Wrapping - This is used to protect the painted surfaces of the bike frame.
  - Cable Ties - These are used to secure loose parts to the partially assembled bike.
  - Stem Caps - These are placed in unprotected ends of the bike frame.

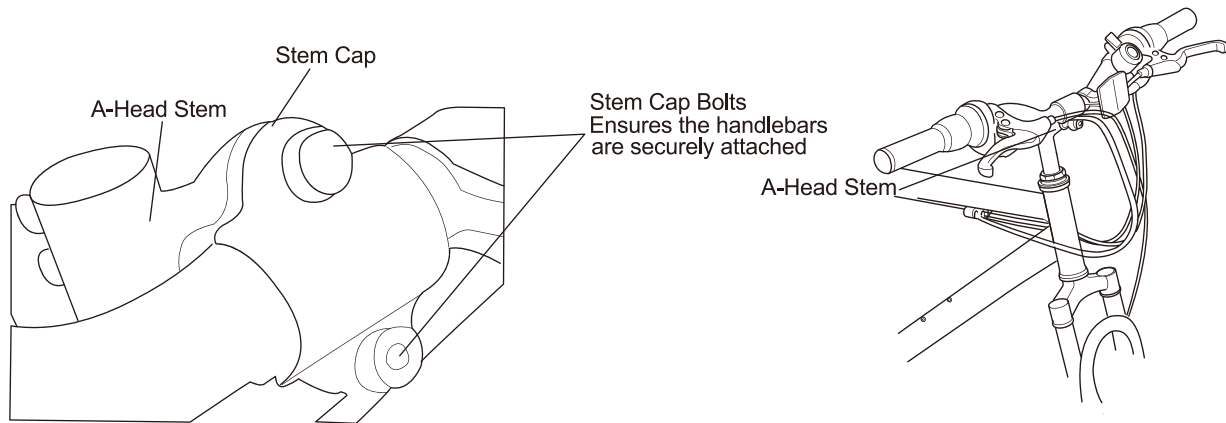


**NOTE!** Always recycle the packaging in accordance with local recycling schemes.

# Assembly

## Step 2

2a



### Attaching The Handlebars

Loosen the Stem Cap Bolts from the stem and remove the Stem Cap.

Place the centre of the Handlebar in the open Stem and hold the Stem Cap in position over the Handlebar.

Carefully replace the Stem Cap Bolts, taking care to tighten them evenly and firmly (16-18NM).



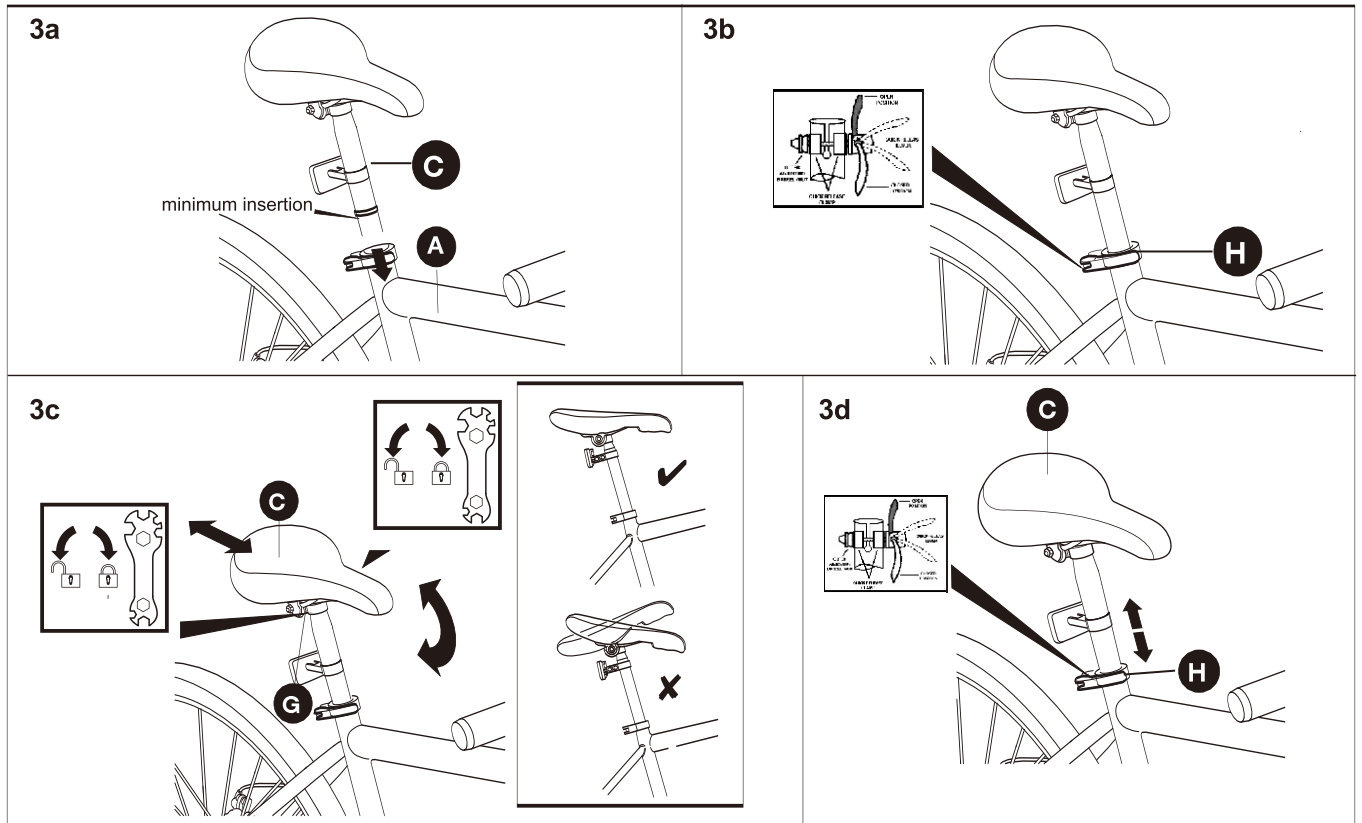
**WARNING!** Before riding, hold the front wheel still between your knees and try and turn the bars using moderate pressure. The bars should not turn. This ensures the stem join is secure. Try and rock the handlebars back and forth in the clamp, there should be no movement.



**NOTE:** Ensure the cables are not tangled or twisted, as this may affect brake & gear performance.

# Assembly

## Step 3



### 3a Insert the Seat Post and Saddle



**WARNING!** When assembling the seat post, make sure it is inserted beyond the minimum insert mark. Failure to observe this warning may lead to a potentially unstable seat post and may result in serious personal injury.

Insert the lower end of the seat post and saddle **C** into the seat tube of the bike **A**.

### 3b Securing the Seat Post

Using the Quick Release Screw **H** to tighten the seat post firmly.

### 3c Adjusting the Position of the Saddle

The angle of the saddle **C** should be adjusted so that it is horizontal to the floor. To adjust the tilt of the saddle, loosen the saddle clamp nuts **G** a quarter of a turn at a time using the multitool supplied until the saddle can be moved.

If required, the saddle **C** can be moved forwards or backwards on the seat post while the saddle clamp nuts **G** are loose.

Once the saddle **C** is positioned correctly, retighten the saddle clamp nuts **G**.

### 3d Adjusting the Height of the Saddle

The height of the saddle **C** should be adjusted so that the Rider can comfortably touch the ground with both feet. To adjust the height of the saddle **C**, loosen the quick release screw **H** until the seat post can move freely.

Once the saddle **C** is positioned correctly, tighten the quick release screw **H**.



# Assembly

## Step 3

### ATTENTION!! IF THIS BICYCLE USES A Q/R(QUIK RELESSE) SEAT POST CLAMP

PLEASE READ AND FOLLOW INSTRUCTIONS CAREFULLY

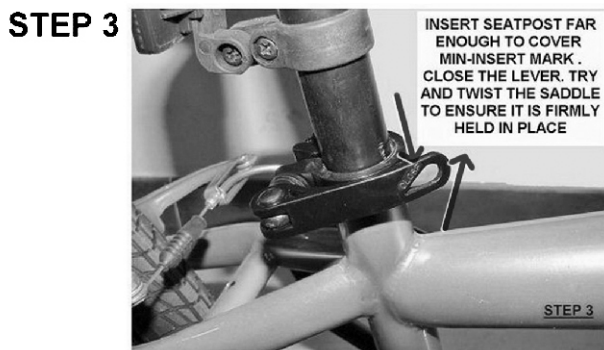
COLOR / STYLE OF Q/R MAY VARY PER MODEL AS REFERANCE PICTURES SHOWN



**YOUR BICYCLE WILL HAVE A QUICK RELEASE CLAMP INSTALLED FROM FACTORY**



**THE QUICK RELEASE CLAMP IS MARKED OPEN & CLOSED. WHEN IN OPEN POSITION, SEAT POST CAN BE INSERTED INTO THE FRAME TO THE DESIRED HEIGHT POSITION**



**AFTER SEATPOST IS INSERTED, YOU MUST FLIP THE LEVER TO THE CLOSED POSITION**

**PLEASE NOTE: THE LEVER WILL NOT FUNCTION PROPERLY, IF IT IS SCREWED SHUT, IT MUST BE FLIPPED OVER FROM OPEN TO CLOSE POSTION**

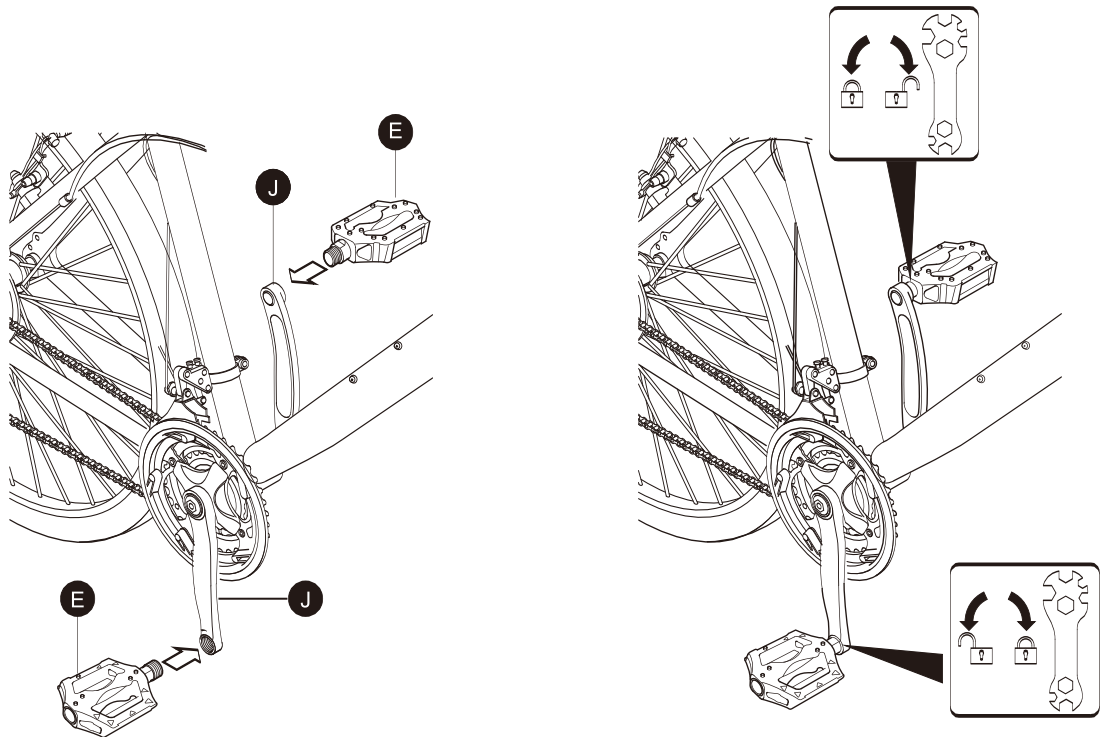


**IF THE SEATPOST / SADDLE IS NOT SECURE ENOUGH, FLIP LEVER TO OPEN POSITION AND SLIGHTLY TIGHTEN ADJUSTING NUT AND FLIP LEVER TO CLOSE POSTION AND CHECK. REPEAT UNTIL SEATPOST IS VERY SECURE. AS A GUIDE THIER SHOULD BE ENOUGH TENSION TO MAKE LEVER HARD TO FLIP CLOSED**

# Assembly

## Step 4

4a & 4b



**NOTE!** The pedals **E** and crank arms **J** have colour coded stickers to indicate which pedal **E** matches which crank arm **J**.

**NOTE!** The threads on the left and right pedals are different. To prevent damage to the threads, only tighten the pedals in the direction indicated on the stickers.

### 4a Fitting the Right Hand Pedal

Locate the right hand pedal **E**. This will have a blue sticker attached, note: turn clockwise to tighten.

Locate the right hand crank arm **J** on the bike **A**. This will also have a blue sticker attached.

Remove the sticker from the right hand pedal **E**.

Insert the threaded shaft of the right hand pedal **E** into the threaded hole of the right hand crank arm **J** and fully tighten in the direction indicated on the stickers using the multi tool supplied.

### 4b Fitting the Left Hand Pedal

Locate the left hand pedal **E**. This will have a red sticker attached, note: turn anti-clockwise to tighten.

Locate the left hand crank arm **J** on the bike **A**. This will also have a red sticker attached.

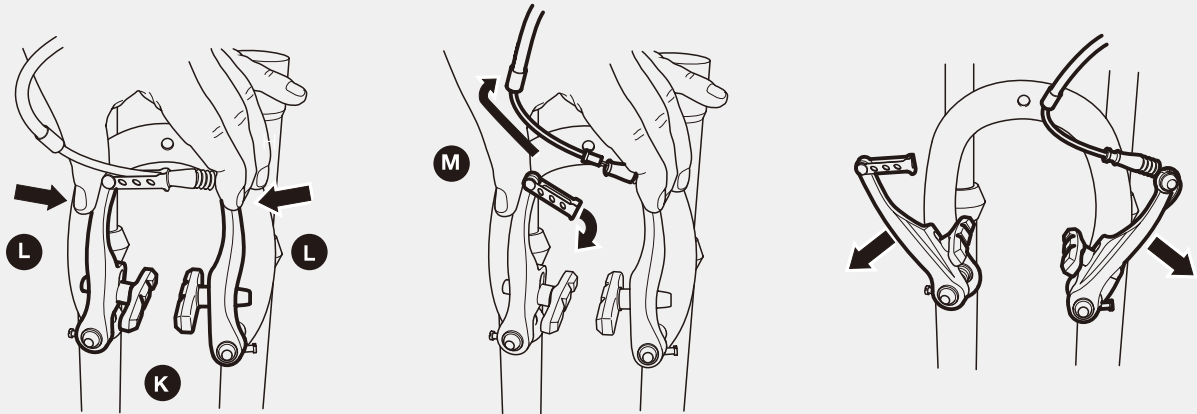
Remove the sticker from the left hand pedal **E**.

Insert the threaded shaft of the left hand pedal **E** into the threaded hole of the right hand crank arm **J** and fully tighten in the direction indicated on the stickers using the multi tool supplied.

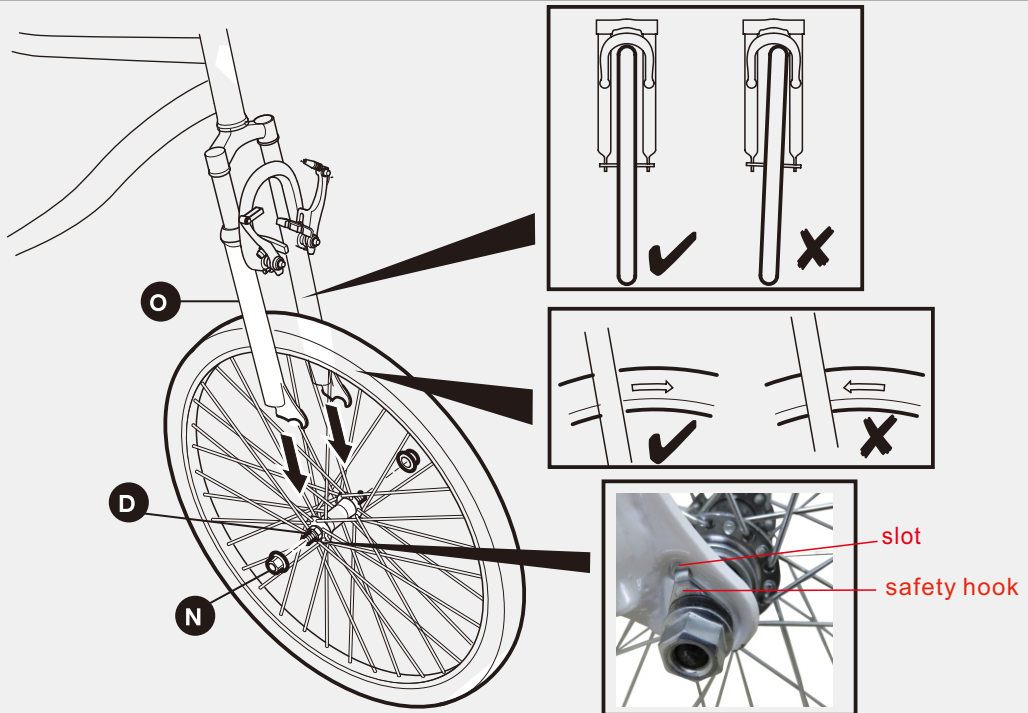
# Assembly

## Step 5

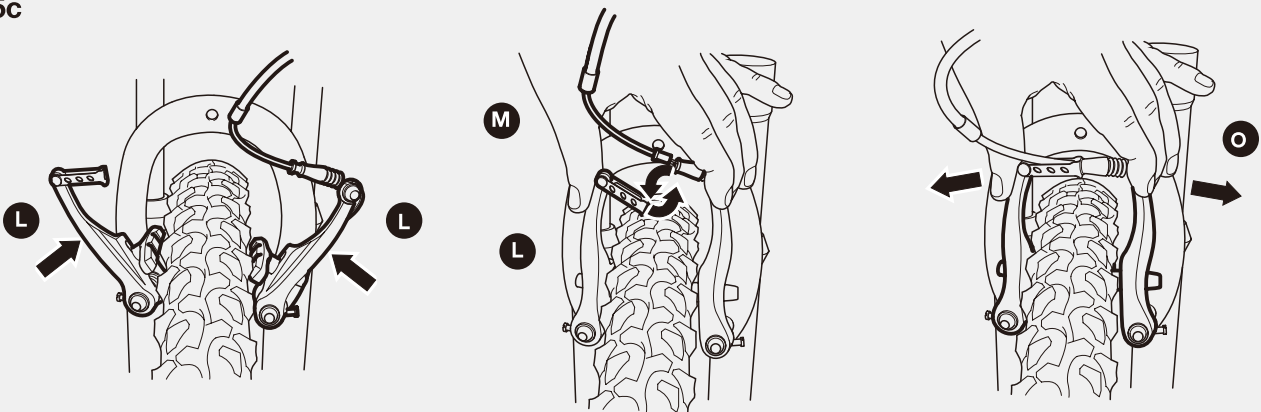
5a



5b



5c



# Assembly

## Step 5 (continued)

### 5a Disconnect the Front Brake

Before the front wheel **D** can be installed, the front brake **K** must be disconnected. This allows the front tyre to pass between the brake pads during assembly.

Squeeze the two arms **L** of the front brake **K** together with one hand.

Using your other hand, pull the guide pipe and cable **M** across and up to release it from the right hand arm.

### 5b Insert the Wheel

Loosen the wheel nuts **N** on both ends of the front wheel **D** axle.



**NOTE!** Align the rotor disc side of wheel with disc brake caliper located on left lower fork leg. Insure that rotor disc is properly inserted in-between brake caliper pads before alignment of front axle into fork ends.

Insert the axle of the front wheel **D** into the slots at the bottom of the suspension forks **O**.

Make sure the safety hook on the hub be put into the slot of the fork.

While ensuring the wheel is centralised in the forks **O**, fully tighten the wheel nuts **N** using the supplied multi tool.

### 5c Refit the Front Brake

Squeeze the two arms **L** of the front brake **K** together with one hand.

Using your other hand, locate the guide pipe and cable **M** into retaining plate slot of the right hand arm **L**.

Once the guide pipe and cable is fitted into slot/hole of retaining plate, release the pressure on the two arms **L**. Check that the front wheel **D** rotates freely. If it does not, the front wheel **D**

may not be located centrally between the suspension forks **O**. Alternatively, the front brakes may need adjusting. Please refer to the supplied Maintenance Manual.

The Left Gear Shifter operates the Front Gears which are attached to the cranks (pedal arms).

The Left Brake Lever operates the Rear Brake.

The Right Gear Shifter operates the Rear Gears.

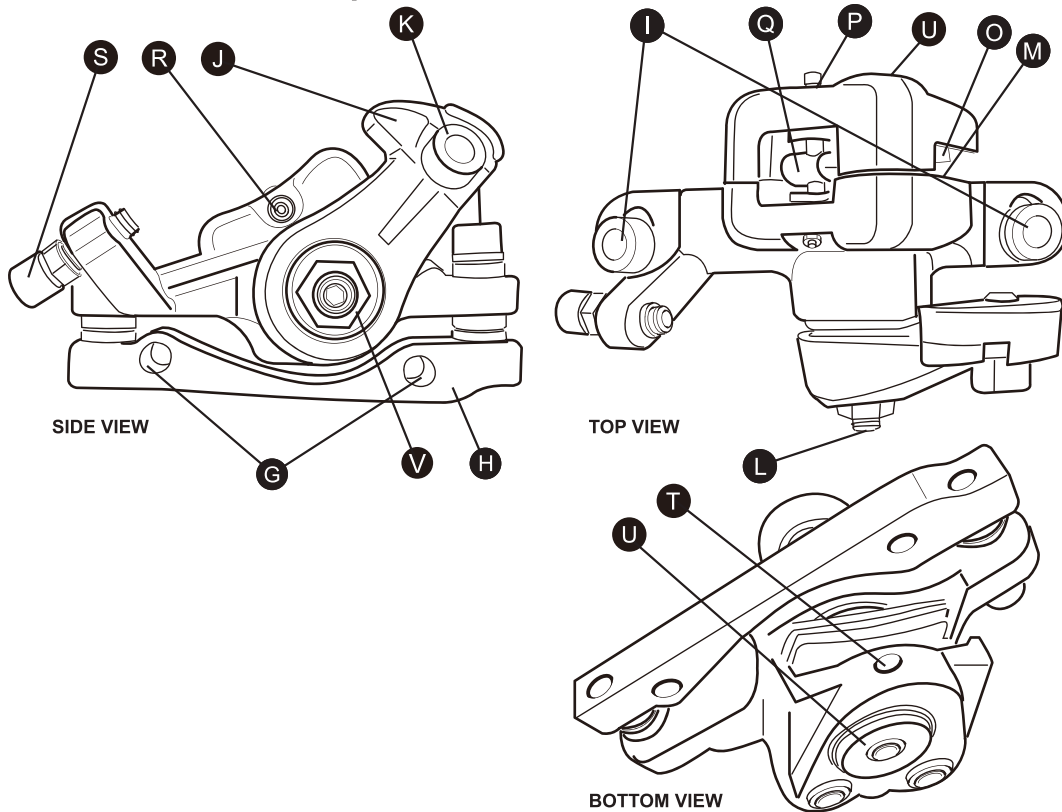
The Right Brake Lever operates the Front Brake.

# Assembly

## Adjusting Disc - Brake

1a

### JAK Disc Brake Set-up Guide



**G** Calliper mount bolt holes;

**H** Calliper mount bracket;

**I** Lateral adjustment bolts;

**J** Calliper arm;

**K** Cable pinch bolt;

**L** Outer pad adjuster bolt (3mm);

**M** Outer pad;

**O** Inner pad;

**P** 'E' clip;

**Q** Spring;

**R** Pin securing brake pads in position (2mm);

**S** Barrel Adjuster with lock nut;

**T** 2mm grub screw (below inner pad);

**U** Inner pad adjustment bolt (5mm);

**V** Lock nut;

# Assembly

## Adjusting Disc - Brake (continued)

### FINE TUNING JAK DISC BRAKE CALLIPERS

Bicycles are mechanical devices and require regular maintenance if they are to perform optimally. Follow these pointers to keep your disc brakes performing properly.

#### BRAKE PAD ALIGNMENT

This is essential for correct brake function. Ideally the brake pads should be positioned as close to the disc rotor as possible, while still allowing the wheel to rotate freely.

##### 1.Adjust The Calliper Position:

Adjust the calliper position by loosening the two adjuster bolts **I** and activating the brake so that the pads grip the disc rotor. The calliper will self align with the rotor. Carefully release the brake and retighten the bolts firmly (6-8Nm).

##### 2.Adjust The Inner Pad Position:

The inner pad **O** is static and does not move when the brake is used, however it's position can be adjusted. First release the grub screw **T** on the underneath of the caliper. Next, using a 5mm Allen key, wind bolt **U** inwards until the pad touches the rotor. Unwind the bolt enough for the wheel to turn freely. Finally lightly tighten the grub screw (2Nm).

##### 3.Adjust The Outer Pad Position:

The outer pad **M** moves towards the rotor when the brake is pulled. To adjust its position, release the 10mm lock nut **V**. Using the 3mm Allen key wind screw **6** inwards until the pad just touches the rotor. Unwind it until the wheel turns freely. Retighten the 10mm lock nut.

#### BRAKE CABLE TENSION

Another factor that will affect your braking performance is cable tension. Increasing the cable tension will sharpen the brakes while decreasing the tension will soften the brakes.

This can be adjusted by screwing the barrel-adjuster on the brake caliper **S** in to decrease tension, or out to increase tension. Once set remember to lock the barrel adjuster in position using the lock nut.

The cable tension can also be adjusted using the barrel adjuster and lock nut on the brake lever.

#### BRAKE PAD REPLACEMENT

When the pads are worn to less than 0.5mm thick they must be replaced to ensure that the brakes continue to function correctly. To do this;

- 1.Remove the wheel.
- 2.Remove the 'E' clip **P** from the pin **R**.
- 3.Using a 2mm Allen key, remove the pin **R**.
- 4.Both brake pads and the spring can be removed.
- 5.Replace the new pads, spring, pin and the 'E' clip.
- 6.Readjust the caliper position and brake pad positions.

#### RELEASE NOTE:

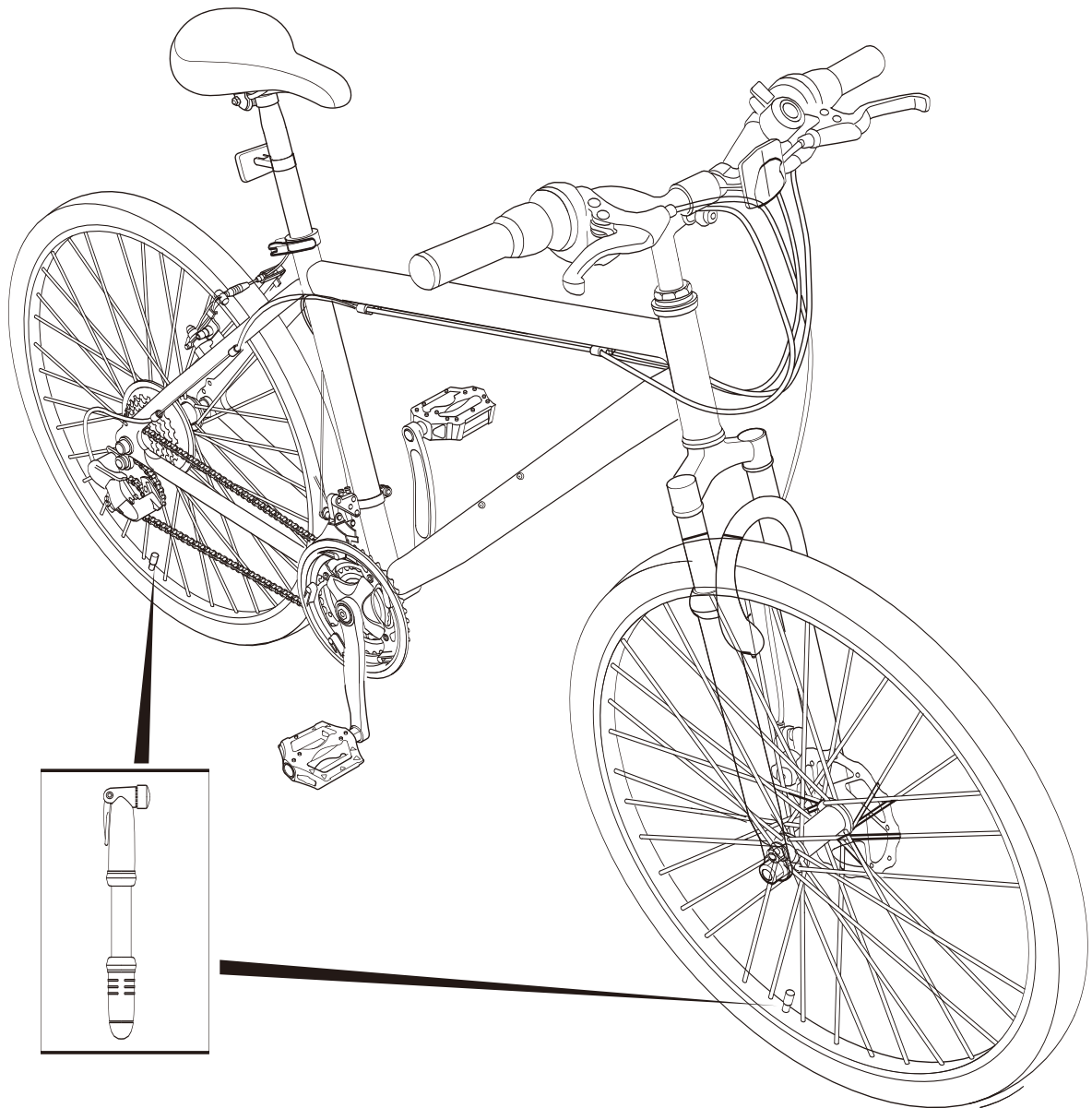
Disc brakes often require an initial 'bedding in' period when new. During this period it is normal to hear the brake pads lightly rubbing against the disc rotor. This sound will soon stop as the brakes are used and the pads wear.

**WARNING:** Check your brakes are functioning effectively before each bike ride. Please remember to regularly check the security of the caliper mount bolts and cable pinch bolt, and that the pads are not too worn, i. e. at least 0.5mm thick.

# Assembly

## Step 6

6



### 6 Inflate the Front and Rear Tyres



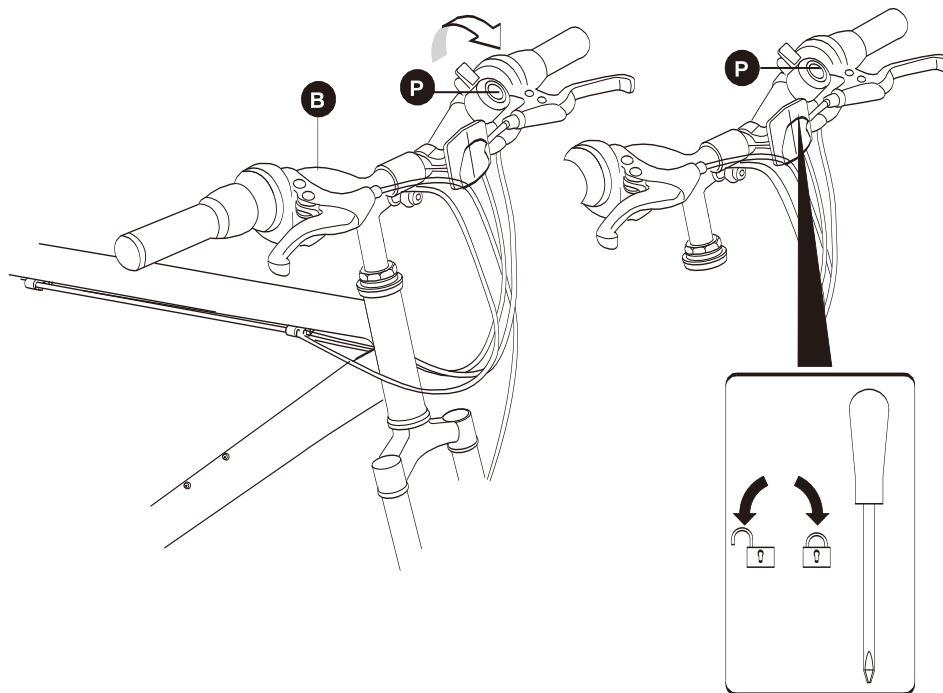
**WARNING!** The front and rear tyres of the bike must be fully inflated before attempting to ride the bike. Under no circumstances should the tyres be inflated above the maximum pressure stated on the side of the tyres.

**WARNING!** Only inflate the front and rear tyres of the bike using a bicycle pump. Do not attempt to use another type of pump to inflate the tyres.

Before riding the bike, the front and rear tyres must be fully inflated to the pressures indicated on the side of the tyre.

# Assembly

## Step 7



### 7 Position the Bell

Rotate the bell **P** so it is upright and position it along the length of the handlebars **B**. You must be able to operate the bell **P** without removing your hand from the handlebars.

Using a suitable screwdriver, tighten the retaining screw at the bottom of the bell **P**.

The Bike is now fully assembled and ready to ride.



# Riding Advice

## Before Riding

You should perform the following checks before riding your bike to ensure it is safe to use and operating correctly.

### **1. Is the Saddle Secure?**

While standing next to the bike, try and move the saddle from side to side. If the saddle moves you should retighten the seat post bolt or the saddle clamp bolts.

### **2. Are the Front and Rear Tyres Inflated Correctly?**

Squeeze the sides of the front and rear tyres. If they are soft they will need inflating. Re-inflate to the pressure indicated on the sides of the tyres using an approved bicycle pump.

### **3. Are the Pedals Tight?**

Using the supplied multitool, ensure both the left and right pedals are fully tight. Remember that the threaded shafts of the left and right pedals tighten in different directions.

### **4. Do the Brakes Work?**

Stand next to the bike and apply the front brake and push forwards. If the wheels move, the front brake may not be working correctly. If required, adjust the front brake as described in the Maintenance Manual.

Repeat the above check for the rear brake.

### **5. Do the Handlebars Move?**

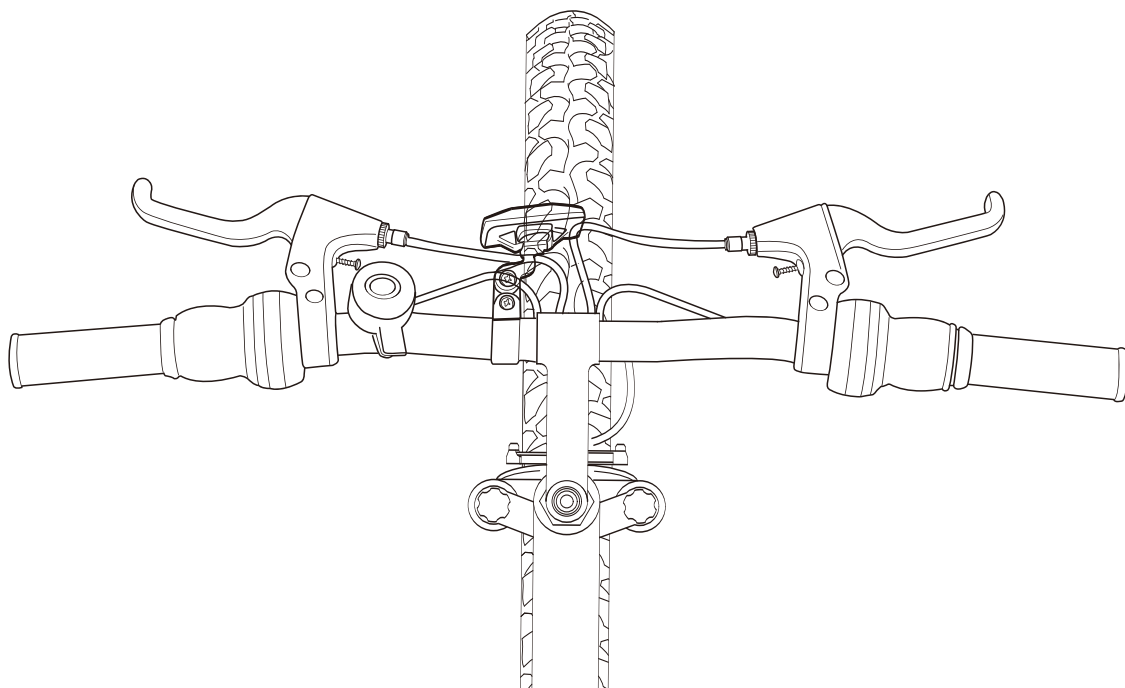
Hold the front wheel between your legs to see if handlebars move left to right! If the handlebars move, the stem bolt may have become loose. Retighten the stem bolt.

### **6. Is the Bike Clean?**

The bike should be cleaned and re-oiled regularly to ensure it operates correctly.

# Riding Advice

## Before Riding



The bike is fitted with 21 gears to allow you to ride efficiently on all types of surfaces and gradients.

The gears are operated using two trigger shifters mounted on the handlebars next to the brake levers. The left hand trigger shifter operates the three front gears and the right hand trigger shifter operates the seven rear gears. The currently selected gear number is shown on the gear indicator for each trigger shifter.

### **1. Operating the Front Gears**

To select a higher gear (larger), firmly push the thumb lever on the left hand trigger shifter.

To select a lower gear (smaller), firmly pull the finger lever on the left hand trigger shifter.

### **2. Operating the Rear Gears**

To select a lower gear (larger), firmly push the thumb lever on the right hand trigger shifter.

To select a higher gear (smaller), firmly pull the finger lever on the right hand trigger shifter.

### **3. Riding Up Hill**

When riding up hill, you should select a lower rear gear (for example number 1) and a lower front gear (for example number 1).

### **4. Riding Down Hill**

When riding down hill, you should select a higher rear gear (for example number 7) and a higher front gear (for example number 3).

# Riding Advice

## Riding in Bad Weather



**WARNING!** Always take extra care when riding in wet, foggy, windy or icy conditions. The brakes may not be as effective and the braking distances may be increased.

When riding in bad weather i.e. wet, foggy, windy or icy, always wear bright, reflective clothing which is warm and waterproof.

You should always give other road users clear signals in plenty of time particularly when approaching junctions. Always brake earlier than you would in the dry as the required braking distance will be increased.

Be aware that all types of surface become greasy or slippery in bad weather. Do not turn or brake suddenly.

## Riding in the Dark



**WARNING!** When riding in the dark, always make sure that the bike is fitted with suitable reflectors and front and rear lights.

It is essential that other road users can clearly see you when riding in the dark. Always wear bright, reflective clothing. Suitable reflectors should be fitted to the front and rear of the bike and if possible the wheels. A white light must be fitted to the front of the bike and a red light at the rear.

Before starting any journey in the dark or even twilight, ensure the lights are working correctly and are turned on.

Clean lights and reflectors regularly and make sure they can be seen from a distance.

## Riding Using Personal Music Players

It is recommended that personal music players are not used while riding a bike. These devices prevent you from hearing approaching vehicles and may prove to be a distraction and cause accident.

## Using Child Seats

If a child seat is fitted to the bike, make sure the child remains calm at all times. Take time to check that the child's arms, feet and clothing cannot be trapped in moving parts such as the wheels and gears.

The child seat must be installed in accordance with the manufacturer's information and should make sure any fitted accessories (like child seat) does not inhibit the functions of the bike (especially rear brakes) must verify all brakes and gears function properly.