



Falcon



Guide & User Manual



Standard Guarantee for MV Sports Ltd

Should any original component prove defective in terms of workmanship within its warranty period, we will replace it. Warranty period for our bicycles is as follows.

Rigid frames & forks – 1 year
Suspension frame & forks – 1 year
Carbon & all other components – 1 year

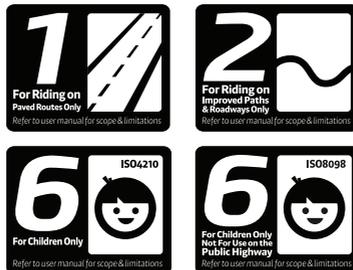
Exclusions: Tyres, Inner Tubes & Accessories

This warranty does not include labour and transportation charges. The company cannot accept any responsibility for consequential or special damage. This warranty applies only to the original retail purchaser who must produce proof of purchase in order to validate any claim. This warranty applies only in the case of defective components and does not cover the effects of normal wear, nor damage caused by accident, abuse, excessive loads, neglect, improper assembly, improper maintenance or the addition of any item inconsistent with the original intended use of the bicycle.

No bicycle is indestructible and no claims can be accepted for damage caused by improper use, competition use, stunt riding, ramp jumping or similar activities. Claims MUST be submitted through your retailer.

Your statutory rights are not affected.

All of our bicycles conform to one of the following standards:



Please refer to the bicycle frame for the relevant ISO standard.

The company reserves the right to change or amend any specification without notice.
All information is correct at time of printing.

Maximum Weight Limit

ISO 4210-1 / ISO 4210-2 = City, Trekking, Mountain & Road bicycles - Maximum permissible total weight limit of rider, bicycle and luggage = 135kg

ISO mark 4210-6 = Young Adult bicycles - Maximum permissible total weight limit of rider, bicycle and luggage = 90kg

ISO 8098 = Young children - Maximum permissible total weight limit of rider, bicycle and luggage = 60kg"

Your Bicycle - Owner's Responsibility

In this manual we describe and illustrate how to ride safely and keep your bicycle in a safe, trouble free operating condition.

Owner's Responsibility and Important Points

Your new Bicycle and this manual comply with the safety requirements laid down in the new **ISO 4210:2014** - Safety requirements for Bicycles and **ISO 8098** - Safety Standard for young Children's bicycles. The new standards bring together the older separate standards: (**EN 14781, 14766, 14765, 14764**).

It comprises of 9 parts covering: Terms & Definitions, Requirements, Common Test Methods, Braking Test Methods, Steering Test Methods, Frame & Fork Test Methods, Wheel & Rim Test Methods, Pedals & Crank Test Methods and Saddles & Seatpost Test Methods.

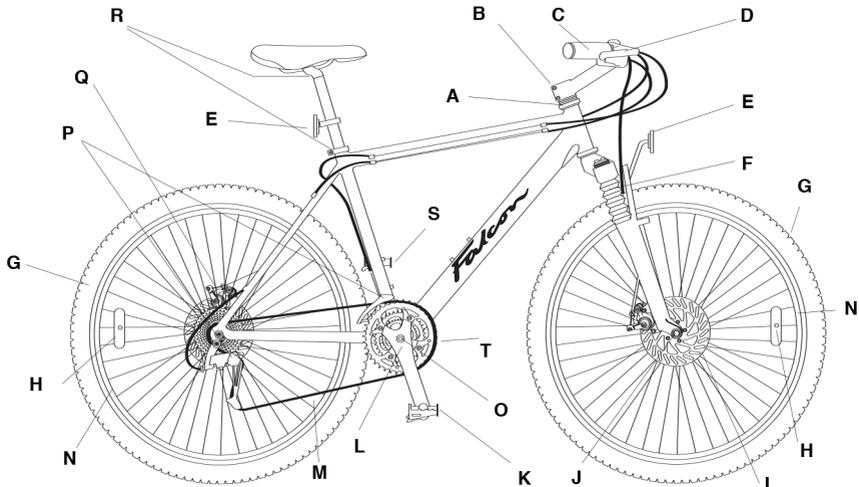
These 9 parts share a common test method to ensure the quality and safety of all cycles supplied, the test methods for each intended cycle use may be different such as the mass, height, load or cycle duration, **ISO 4210** applies to Road, Mountain, City & Trekking and young adult cycles, but does not apply to specialised types of cycles such as Tandems, Stunt or competition bikes.

The second part of the new standard is **ISO 8098**, this specifies the safety and performance requirements and test methods for the design, assembly and testing of sub-assemblies and fully assembled bicycles for young children - this standard is defined by saddle height. This standard is defined by bikes with a maximum saddle height of more than 435mm and less than 635mm so in relation to our MV Sports bikes this will apply to bikes of 12", 14", 16" and some 18" wheel bicycles, it is not applicable to special types of bicycles such as BMX bicycles. Your new bicycle will have the relevant standard where applicable visibly labeled either on the outer box or main frame of the cycle near the cranks.

Contents

Location of Parts with Routine Maintenance.....	5
Safe Cycling and Safety Tips.....	6
Setting Up Your Bike.....	7-15
Seat Adjustment.....	7-8
Handlebars and Stems.....	8-9
Cotterless Cranks Adjustment.....	9
Brakes.....	9-11
Derailleur Gears / Fixed-Hub Gears.....	12-13
Suspension.....	13
Tyre Care and Wheel Adjustments.....	14
Nutted /Quick Release Type Wheels.....	14-15
Rim Wear Line Limit Indicator.....	15
Fitment of Bell.....	15
Maintenance.....	16-17
Mechanical Safety Checklist.....	17
Cleaning and Lubrication.....	18
Table of Recommended Torque Values.....	19
Fitting Accessories.....	20

Location of Parts with Routine Maintenance



A - Headset

Remove, clean and regrease bearings yearly, checking if replacement is required.

B - Stem Nuts

Ensure stem nuts and bolts are tight.

C - Handlebars

Check handlebar/stem bolt's are tight. Check brake levers are securely mounted to bars and brakes stop smoothly and efficiently

D - Brakes

Lightly oil exposed cables monthly. Maintain adjustment and replace brake blocks when worn, brake cables when frayed.

E - Reflectors (front & rear)

Ensure reflectors are secure and undamaged. Replace if necessary.

F - Front Suspension unit

(Dealer adjustment only)

G - Tyres

Check for cuts and wear. Maintain pressure indicated on tyre wall for maximum efficiency.

H - Wheel Reflectors

Check reflectors are securely fixed, monthly.

I - Disc Brakes - Front

(Routine maintenance by your dealer recommended.)

J - Wheel Hubs

Grease bearings monthly. Adjust cones to avoid free play from side to side.

K - Pedals with Reflectors

Check all fittings are secure.

L - Cranks

Grease bearings monthly. Check that axle bolts or cotterpin bolts are tight. Check for free play in bottom bracket.

M - Chain

Keep lightly oiled weekly, clean and lubricate half yearly.

N - Wheels

Rims should be kept free from wax, oil, grease, glue and checked for rim damage or wear due to brake action. Check rim wear line.

O - Bottom Bracket

Clean, regrease yearly, checking for wear.

P - Gears

Front and Rear — Lightly oil moving parts. Maintain adjustments of front and rear derailleurs.

Q - Disc Brake - Rear

(Routine maintenance by your dealer recommended).

R - Seat and Stem Nuts

Be sure seat and stem nuts are tight. See page 6.

S - Pedals

Lightly oil bearings monthly.

T - Frame Number

Refer to table of recommended torque values - page 19.

Half Yearly - Remove and clean, lubricate chain, derailleurs gears and all cables. Check and replace as required.

Yearly - Remove, clean and regrease hub axles, bottom bracket set and headset.

NB - Wash cycle weekly with warm soapy water and polish dry with a soft cloth. Do not pressure wash.

Safe Cycling and Safety Tips

Before you ride your bicycle at any time make sure it is in a safe operating condition. Particularly check that your:

- Bicycle's nuts, bolts and parts are tight and not worn or damaged.
- Riding position is comfortable (refer to pages 7-8).
- Brakes are operating effectively.
- Steering is free with no excessive play.
- Wheels run true and hub bearings are correctly adjusted.
- Wheels are properly secured and locked to frame/fork.
- Tyres are in good condition and inflated to correct pressure.
- Pedals are securely tightened to pedal cranks.
- Gears are correctly adjusted.
- All reflectors are in position.

After you have made any adjustments to your bicycle, check that all nuts and bolts are securely tightened and cables are free from kinks and fixed securely to the bicycle frame.

Every six months (more frequently if high mileage or subject to heavy use) your bicycle should be professionally checked to ensure that it is in correct and safe working order.

To Ensure Your Safety

- Do not ride on same side of road as oncoming traffic.
- Do not ride two side by side.
- Do not carry a passenger unless cycle is equipped to do so.
- Do not swerve in and out of traffic.
- Do not hang items over the handlebars to impede steering or catch in the front wheel.
- Do not hold on to another vehicle.
- Do not ride too close behind another vehicle.
- Always wear a helmet

CAUTION: Wet Weather Riding. No brakes work as well under wet or icy conditions as they do under dry conditions. In wet weather special precautions must be taken to assure safe stopping. Ride slower than normal and apply your brakes well in advance of anticipated stops.

CAUTION: Night Riding. We recommend you minimise the time you ride after dark. If you should have to be out on your bicycle at night you must comply with the law, use a headlight (white) and a tail-light (red) on your bicycle in addition to the all-around reflectors that are fitted. For added safety wear light coloured clothing with reflective stripes. Check that the bicycle reflectors are firmly secured in their correct position, clean and not obscured. Damaged reflectors must be replaced immediately.

Riding Position

It is important that you and your bicycle are fitted to each other, not only for comfort and riding ease but for control and safety. Normally your Dealer will custom fit your bicycle to you but the following few pages should help you to find your most comfortable, safe and efficient position.

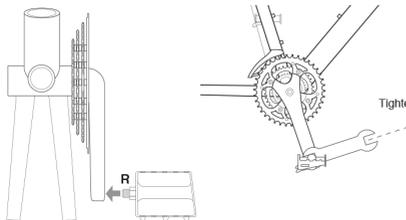
! WARNING
PEDAL IDENTIFICATION

Setting Up Your Bike



Check for the letters "L" or "R" on the ends of the pedals to show which side the pedal needs to be fitted to.

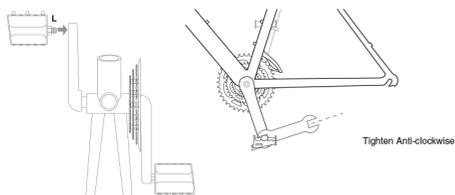
TO FIT RIGHTHAND PEDAL



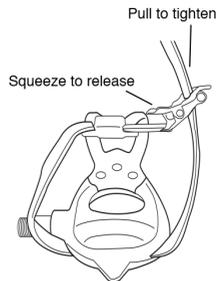
1. Fit to chainside of cycle.
2. The pedal tightens in a clockwise direction, towards the front of the bicycle.
3. Locate thread by hand, fit and tighten.
4. Use spanner to finish tightening (be careful)

If your bike is fitted with toeclips and straps to the pedals they should always be adjusted to ensure the straps are loose enough to remove your feet quickly in the event of an emergency.
Do not lock your feet into the pedals until you are fully familiar and confident with the release mechanism.

TO FIT LEFTHAND PEDAL



1. Fit to non chainside of cycle.
2. The pedal has a special thread to tighten in an anti-clockwise direction, towards the front of the bicycle.
3. Locate thread by hand, fit and tighten.
4. Use spanner to finish tightening (be careful)

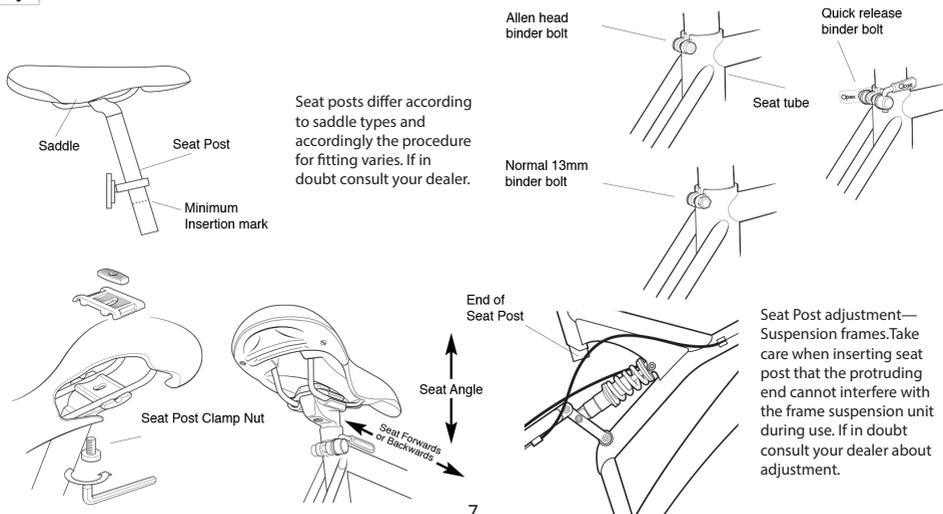


Seat Adjustment

Loosen the nut on the seat-post clamp enough to allow the saddle to move backwards or forwards. The seat can then be aligned and the angle can also be adjusted. It is recommended that the seat be parallel to the ground. To adjust the seat up and down, loosen the binder-bolt on the seat tube, position the seat and re-tighten the binder-bolt.

CAUTION: Insert the seat-post to a point above the insertion mark. The **MINIMUM INSERTION MARK** should not be visible. Securely tighten the seat-post binder bolt by using an Allen key or a 13 mm spanner. Test by grasping the seat and attempting to turn. Keep tightening until the seat will no longer turn. Refer to table of recommended torque values on page 19.

! WARNING: Bicycle should not be ridden if seat adjustments are not properly tightened.



Saddle Angle

The seat should be horizontal or parallel with the ground. Slight variation around the horizontal may suit individual comfort but if excessive angles are felt necessary check other aspects of your position.

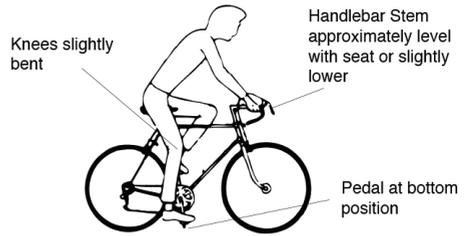
Saddle Height

The correct seat height is determined by sitting on the seat with your leg fully extended. Your heel (in flat shoes) should just touch the pedal when it is positioned at its lowest point. When riding normally with the ball of your foot on the pedal your knee should be slightly flexed at the bottom of the pedal stroke (see diagram following).

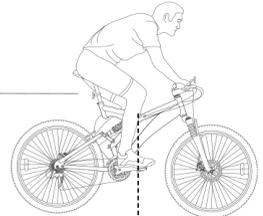
Saddle Forwards/Backwards Position

With the ball of one foot on the pedal and the cranks parallel to the ground the saddle should be adjusted backwards or forwards to a position whereby the pedal centre is directly below the knee joint.

Very small changes in saddle position can have a substantial effect on performance and comfort. Consequently, whenever you make a change to your saddle position, make only one directional change at a time and make the changes in small increments, until you have found the point at which you are most comfortable.



Loosen saddle from seat post to adjust forwards or backwards. Tighten when set correctly



The saddle should be moved forwards or backwards so that the knee is directly above the pedal when the crank is parallel to the ground.

Handlebars and Stems

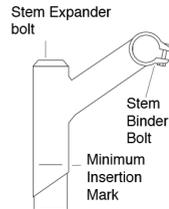
As your cycle may be fitted with a standard 'quill' stem or an A-Head stem, you must check that all the bolts are tight before cycling.

Standard Stem: Loosen expander bolt so that expander wedge is not tight in bottom of handlebar stem. Gently tap the top of the expander bolt to further loosen the wedge, if necessary. When the expander wedge is loose, move the handlebars up or down until you find the optimum height at which you can easily reach the brake levers and comfortably grasp the handlebars. Usually this height is level with, or slightly lower than, the top of the saddle. Be sure the stem is in line with the front wheel.

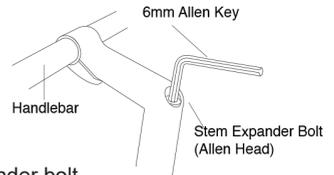
Caution: A minimum insertion ring is marked on the handlebar stem and this marking should remain in the head tube. Under no circumstances should the minimum height insertion mark be visible on the handlebar stem. It must be down in the head tube.

When desirable height has been achieved, align the handlebar with the front wheel and securely tighten expander bolt. It is extremely important to tighten the expander bolt sufficiently, so that when the wheel is held between your legs and the handlebars are twisted, the handlebars do not move. Do not over tighten, as it may increase risk of injury to the rider. Position grip portion of handlebars horizontally and securely tighten the binder bolt.

Standard Quill Stem



Recessed Type



Refer to table of recommended torque values on page 19.

Note: Whenever the handlebar stem is removed from the head tube then the expander bolt should be lightly greased.

Note: On some bikes, raising the stem requires brake cable adjustment.

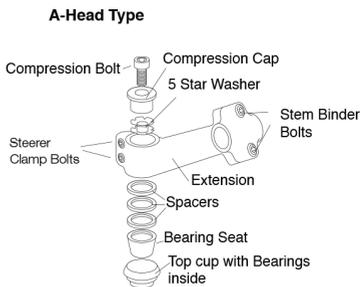
A-Head Stem: Has 2 steerer clamp bolts on the back of the stem, which clamp around the steerer tube. Loosen these bolts to align the stem with the front wheel. Re-tighten the steerer clamp bolts.

Caution: Do not adjust the top compression bolt, this should be pre-set to eliminate bearing play, overtightening will cause premature wear.

Contact your retailer for service.

Handlebar Position: The position of the handlebar should be set to allow a comfortable and easy reach of both gear control and brake levers. When riding, your weight should be so balanced that your hands rest lightly on the handlebars. This prevents strain on wrists and forearms when pedalling. If you alter the riding position, remember to tighten all nuts and bolts securely.

Refer to table of recommended torque values on page 19.



CAUTION:

NEVER EXTEND THE HANDLEBAR STEM OR SEAT POST ABOVE THE MINIMUM INSERTION MARK AS THIS IS DANGEROUS

Cotterless Cranks Adjustment

IMPORTANT

To ensure trouble free operation it is important that the nuts securing the lefthand and righthand chainwheel to the bottom bracket axle are tightened as securely as possible.

It is strongly recommended that the tightness of the nuts be checked after the first two weeks of use and a maximum of three monthly intervals thereafter.

Brakes

The Braking action of a bicycle is generated through friction between the brake pads and either the wheel rim or a wheel mounted braking disc. To make sure that you have maximum friction available, keep your wheel rims (or disc brake rotors) and brake blocks clean. Ensure they are free of dirt, lubricants, waxes and polish. Do not allow a build up of road or trail dirt on the rims as this can act as an abrasive and cause rims to wear to a point where the sidewall could fail.



WARNING

For safe riding it is important to completely understand the operation of your bicycle's brake system. Improper use of your bicycle's brake system may result in a loss of control or an accident, which could lead to severe injury.

Because each bicycle may handle differently, be sure to learn the proper braking technique (including brake lever pressure and bicycle control characteristics) and operation of your bicycle. This can be done by consulting your professional bicycle dealer and this owner's manual, and by practicing your riding and braking technique.

It is very important that parent's or carers ensure that their children are properly instructed in the use of this bicycle, paying particular attention to the safe use of the braking system. The bicycle is equipped with two independent brake mechanisms. One on the front wheel and the other on the rear wheel. The brakes are operated by hand levers fastened to the handlebars. The right lever controls the front brake and the left lever controls the rear brake.

To Stop with Safety:

1. Operate the rear brake (left lever) slightly before the front brake (right lever).
2. Apply firm pressure to both front and rear brake levers.

Caution: If the front brake is applied with too much pressure, the rider may be thrown off the bicycle.

3. Never apply the front brake on a turn. This is especially dangerous when cornering or riding on slippery or loose surface roads.

Caution: Brakes are less effective in wet weather. Ride slower and allow more distance for stopping.

Note: Do not ride your bicycle if the braking system is not working correctly. If you are in doubt, take your bicycle to your dealer for assessment or repair.

Brake Adjustment Procedure - Caliper Brakes

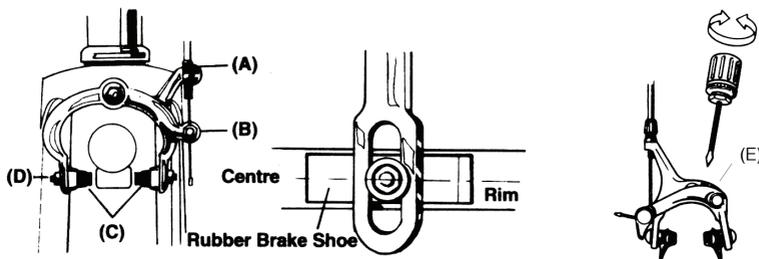
The brakes on your bicycle should have been adjusted correctly by your dealer. However, as cables do stretch, it is important to check the adjustment of your brakes after your first ride. Most brakes will need some adjustments after being used the first few times. Your brakes are correctly adjusted when there is a 1.5 mm gap between the brake blocks and the brake track of the wheel rim.

Do not adjust brakes to allow brake blocks to contact wheel rim when brake levers are in the off position. The fine adjustment of the brakes is made by the following procedure:

1. Turn adjuster (A) to set blocks (C) just clear of rim by 1.5 mm.
2. Ensure that the brake blocks meet the rim parallel and central to the rim brake tracks. Adjust by nuts (D) if necessary, then tighten securely.
3. When all fine adjustment is taken up on adjuster (A), it will be necessary to reset the cables as follows:
 - a. Turn adjuster (A) all the way down as far as it will go into its mounting.
 - b. Loosen cable clamp bolt (B). Press both brake shoes firmly against wheel rim.
 - c. Pull brake cable wire through its clamp bolt.
 - d. Tighten cable clamp bolt (B) securely.

Note: If one brake shoe is closer to the rim than the other first check that the wheel has been centred between the forks then adjust the brakes as necessary.

To adjust brakes that have central Caliper adjuster (E) simply turn screw as shown until brakes centralise.

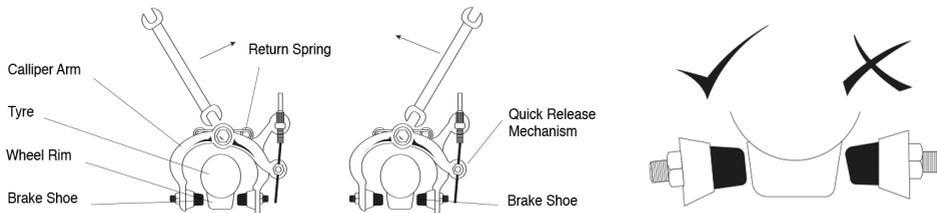


Brake Maintenance - Caliper brakes

To maintain cable brakes in efficient working order, regularly check the brake adjustment and lightly lubricate brake pivots and springs. Oil the exposed parts of the innerwire to prevent corrosion. Slow or inefficient braking often indicates that the brake cables themselves require lubrication or replacement. As this job requires the removal of the complete brake cable, we recommend strongly that this service is done professionally.

Note: To assure smooth braking, wheels must run true and be correctly adjusted, with the rim brake tracks free from dents and kinks. The brake blocks should be in correct alignment with the rim brake track. See your dealer if you are in any doubt regarding wheel and brake adjustment.

Protect yourself from frayed cable ends by maintaining the alloy end caps fitted over the inner wire ends. Brakes should function freely and release fully. If brakes bind, first check for cleanliness and proper lubrication. If brakes still bind, return your bicycle to your dealer for adjustment.



To centre side pull brakes first slacken the retaining nut and then centre the brake using a spanner on the front retaining nut.

CAUTION: Before riding, test your brakes. Make sure that the quick release mechanism is returned to its normal correct position, otherwise your brakes will not operate effectively.

“V” Brake System

Cable Quick Release

To release the brake inner cable from the V brake, squeeze the two brake arms together until the brake blocks contact the rim and remove the inner cable lead pipe from the cable end bracket.

To re-connect again squeeze the two brake arms together and relocate the inner cable pipe in the cable end bracket.

INNER CABLE ADJUSTMENT

1. Pass the inner cable through the inner cable lead, and after setting so that the total of the clearances between the left and right shoes and the rim is 2 mm, tighten the cable fixing bolt. (Fig 1)

2. Adjust the balance with the spring tension adjustment screws. (Fig 2)

3. Depress the brake lever about 10 times as in normal brake operation and check that everything is operating correctly and that the shoe clearance is correct before using the brakes. (Fig 3)

Fig 1

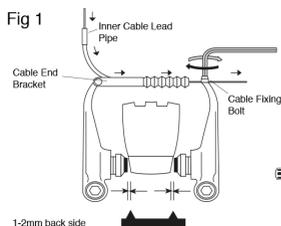


Fig 2

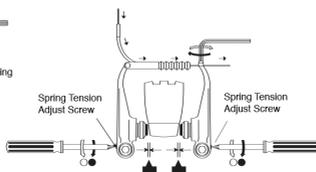
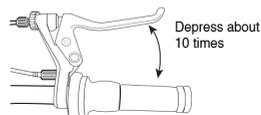
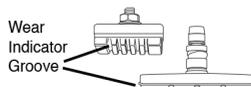


Fig 3



Brake Block Replacement- Caliper and V Brakes

All brake blocks are provided with grooves that indicate the wear on each block. When the grooves are worn down to a flat surface, replace the blocks (in pairs) immediately.



Brake Maintenance - Disc Brakes

Your cycle may arrive with factory fitted disc brakes - the latest technology in cycle braking!

If you have purchased your cycle from a professional cycle shop your brakes should have been set up correctly. You will only have to do routine maintenance as the brake pads wear. If you purchased your cycle from a mail-order source you may have to set up the brakes before you use your cycle. Please refer to the disc brake leaflet that accompanies the cycle. If you do not have such a leaflet please take your cycle to a professional cycle shop.

Derailleur Gears

There are many types of derailleur systems on the market. If your bike is fitted with derailleur gears refer to the specific component maker's leaflet supplied with your bicycle or check the technical documents from the component makers website before you make any adjustments. If in doubt visit your local retailer to obtain assistance.

Introduction

The derailleur gear is so named because it works on the derailing principle to move the chain from one sprocket to another. The number of gears is determined by multiplying the number of sprockets on the rear freewheel by the number of chainrings on the front crank set. By using different combinations of sprocket and chainwheel sizes, a wide range of gear ratios are available. The highest gear is when the large chainwheel is coupled with the small sprocket and the lowest gear is when the small chainwheel is combined with the largest rear sprocket. The wide range of gears allows you to attempt all prevailing conditions while pedalling at the constant and efficient rate of sixty revolutions per minute.

Derailleur Gear Maintenance

To help ensure that your derailleur gear works efficiently and to prolong its life, it must be kept clean and free from excess dirt build up and should be properly lubricated.

Gear Changing

The rider's left gear lever controls the front derailleur and chain wheels. The function of the front derailleur is to move the chain between the larger and smaller chain rings.

The rider's right gear lever controls the rear derailleur and sprockets.

The function of the rear derailleur is to move the drive chain from one gear sprocket to another. The large rear sprockets generate low gears for hill climbing. The small rear sprockets develop high gear ratios for speedwork and downhill riding.

The small front chainring produces low gear ratios while the larger front chainrings produce higher gear ratios.

To operate your derailleur gear system efficiently and reduce damage, wear and reduce noise to a minimum, avoid using the maximum crossover gear ratios of large chainring/large rear sprocket, small chainring/small rear sprocket.#

Caution: For positive gear selection, observe these four precautions:

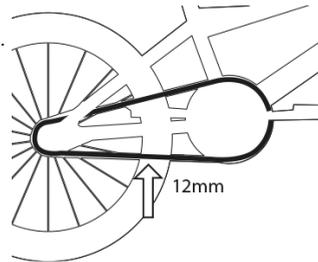
1. Change only when pedals and wheels are moving in a forward motion.
2. Reduce pedal pressure while changing gears.
3. Never back pedal when changing gear.
4. Never force the gear levers.

Gear selection should be made in anticipation of need since forward motion of the bicycle is required when changing gear. It is advisable to change to a low gear before stopping in order to be in the proper gear when you start up. On hills, change gear early while still maintaining forward pedalling speed.

Note. To understand the function and to carry out adjustments and maintenance of the unique gear system fitted on your bicycle please refer to the manufacturer's leaflets provided within your manual pack.

Fixed / Hub Gears

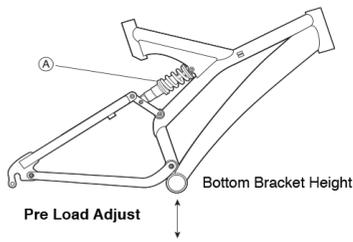
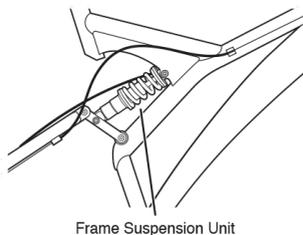
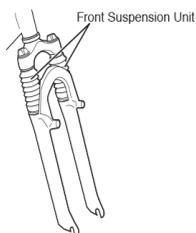
If your bike is fitted with a rear hub gear or single speed free wheel the chain tension should be checked monthly to prevent premature wear of the system. Lift the chain at it's mid point of the bottom chain run (as indicated in the diagram). Chain tension is ideal if you can lift the chain vertically by 12mm. If the chain moves in excess of the 12mm it needs to be re tensioned as follows.



Loosen both of the rear wheel nuts, slide the wheel backwards, make sure the wheel is central in the frame and tighten the wheel nuts to secure the wheel. Recheck the chain tension again and rotate the pedals backward to make sure there are no tight spots in the rotation. A tight spot indicates that the chain is too tight.

Suspension

Your cycle may be fitted with suspension units built into parts of the frame and forks. We recommend these are only serviced by your dealer as required. More details may be found in the suspension manufacturer's handbook.



Pre Load Adjustment

We recommend that for optimum safe riding Pre-Load should be set as follows.

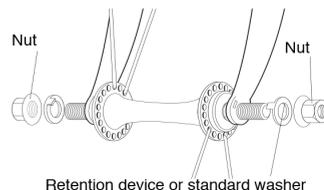
1. Pre-Load alters the amount of bottom bracket drop when seated on the saddle. We strongly recommend you set Pre-Load so as to experience no more than 1" (25mm) of sag. Measured as a decrease in bottom bracket height when the riders weight is applied to the bike. To adjust Pre-Load, grasp knurled adjuster (A) and spring, and either:
2. Increase Pre-Load by turning to compress the spring
3. Decrease Pre-Load by turning to allow spring extension.

Tyre Care and Wheel Adjustments

To obtain maximum life and full benefit from your tyres, it is essential to maintain the recommended pressure indicated on the tyre sidewall. Hard braking and skidding greatly reduces tyre life. Make sure your tyres do not come into contact with oil, petrol, paraffin or other rubber solvents. Make sure that your wheels run true and are in correct alignment to avoid chafing the tyre sidewall against the bicycle frame or fork tubes. Tyres should regularly be inspected for wear and cuts. Check that the tyre tread pattern is clearly showing all around the outside edge of the tyre. Check there are not any breaks, cuts or uneven wear in the tyre. Tyres should be replaced if damaged. Tyre punctures can be caused by careless riding over sharp stones, holes in the road, or by hitting curbstones. If you are storing your bicycle for a long period of time, it is advisable to store the bike with the tyres off the ground to prevent them from becoming distorted. To inflate tyres, a foot pump or normal bicycle inflator fitted with a suitable valve connector should be used along with an accurate tyre pressure gauge. Wheels should be checked regularly for spoke tension. Perform this check more frequently if the bicycle is used on rough roads.

Caution: Your front wheel comes with a retention device to keep the wheel axle from disengaging from the fork-ends if the wheel nuts or the quick-release are incorrectly assembled. These devices are of two types.

- 1: Small protrusions machined or formed on the outer face of the fork-ends.
- 2: Shaped washers that contain a small tab/prong that engages in a hole within the fork-end.

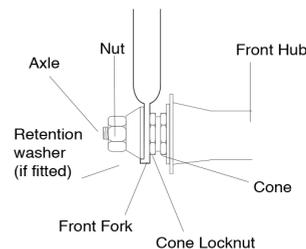


Nutted Type Wheels

Front Wheel

Disengage the brake quick release lever if your bicycle is so equipped. Loosen both axle nuts by turning in a counter clockwise direction. Remove axle nuts, washers, and axle retention device if fitted. Remove the front wheel. The axle cone bearing adjustment should permit smooth rotation of wheel with the cone locknut securely fastened against axle cone to prevent loosening.

Replace the front wheel between the fork blades ensuring that the projecting tab/prong of the retention device are securely fitted into the slot in the fork ends or with standard washers securely in position butting against the protrusions on the fork end. Securely tighten all wheel nuts ensuring that the wheel is central within the forks. Refer to page 19 for recommended torque settings.



Note. Reset brake quick release mechanism and check brake for proper operation.

The wheels fitted to this bicycle are not suitable for the fitting of Tubeless Tyres. Please consult your local dealer for this upgrade.

Rear Wheel

Move the chain onto the smallest rear sprocket. Disengage the brake quick release lever if your bicycle is so equipped. Loosen both axle nuts by turning in a counter clockwise direction. Pull the derailleur mechanism gear rearwards for additional clearance. Remove the rear wheel by sliding forward or down and out of the frame.

To install wheel, locate the top section of the chain on the small sprocket and replace the wheel into the frame by pushing back and centralising between the chainstays. While holding the wheel in this position, tighten the axle nuts in a clockwise direction securely ensuring that the wheel is central within the chainstays. Refer to page 17 for recommended torque settings.

The wheel should turn freely and have no side play.

Reset rear brake quick release mechanism and check brake for proper operation.

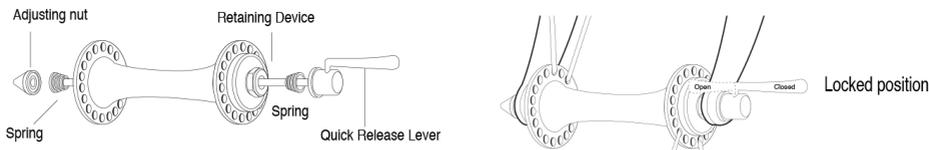


WARNING! Do not attempt to ride the cycle until you are absolutely sure that all quick release levers are fully closed and securely tightened.

Quick Release Type Wheels

Front Wheel

1. To remove the front wheel, first release the front wheel brake. Then open the quick release lever on the axle and pull the wheel from the forks.
 2. To install, fit wheel into forks with quick release lever on the left side. Close quick-release, and tighten adjuster until snug. Release quick-release lever and further tighten adjuster approximately 3/4 of a turn. Lock and check that the quick-release has engaged the fork ends. It may be necessary to tighten or loosen the adjuster slightly.
- Note.** Reset brake quick release mechanism and check brake for proper operation.
3. Wheel must be clear of frame and fork by at least 1-5mm.
 4. The wheel should turn freely and have very little side-play.
 5. Check quick release lever is in the correct and fully locked position before each ride.



Rear Wheel

1. Use same procedure as for standard rear wheel, with the exception of loosening axle nuts. Operate the quick release lever by pulling away from the wheel 180° to release the wheel from the frame.
2. When installing the rear wheel, position the wheel centrally in the frame, folding back the lever, then, when in position fold the lever into its closed position.
3. Check quick release lever is in the correct and fully locked position before each ride.
4. Reset rear brake quick release mechanism and check brake for proper operation.

Rim Wear Line Limit Indicator

If your bicycle is fitted with disc brakes to the front and rear, the following explanation is not applicable and can be ignored.

Invisible Safety Line

This type of safety line is manufactured into the aluminium extrusion of the rim. It is invisible until worn out. Under excessive wear the safety line will become visible so the rim no longer has a continuous braking surface. It will appear as if there were a hole or groove in the surface.

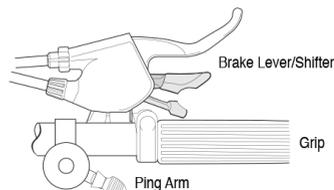
Visible Safety Line

This type of safety line is already machined and is visible in the aluminium braking surface. When the rim has been subjected to extended braking and the rim surface is sufficiently worn to warrant replacement, the safety line will disappear and the rims braking surface will be one continuous smooth surface.

THE RIM MUST BE REPLACED BY A PROFESSIONAL CYCLE MECHANIC BEFORE THE BIKE IS RIDDEN.

Fitment of Bell

1. Remove screw from bell clamp.
2. Position in a convenient spot near the left hand or right hand handlebar grip.
3. Replace screw & tighten securely.
4. Rotate the "Ping Arm" to a comfortable position.



Position Bell on left hand or right hand side of the handlebar as required.

Maintenance

We recommend your new bike is checked and serviced at regular intervals to ensure its performance, reliability and your safety.

Wherever possible we recommend that service, maintenance and repairs are undertaken by your local dealer. If this is not possible please review the following detail as a guide.

Service

Warning: Technological advances have made bicycles and bicycle components more complex, and the pace of innovation is increasing. It is impossible for this manual to provide all the information required to properly repair and/or maintain your bicycle. In order to help minimize the chances of an accident and possible injury, it is critical that you have any repair or maintenance that is not specifically described in this manual performed by your dealer. Equally important is that your individual maintenance requirements will be determined by everything from your riding style to geographical location. Consult your dealer for help in determining your maintenance requirements.

Warning: Many bicycle service and repair tasks require specialist knowledge and tools. Do not begin any adjustments or service on your bicycle until you have learned from your dealer how to properly complete them. Improper adjustment or service may result in damage to the bicycle or in an accident that can cause serious injury or death.

Service Intervals

Some service and maintenance can and should be performed by the owner, and requires no special tools or knowledge beyond what is presented in this manual.

The following are examples of the type of service you should perform yourself. All other service, maintenance and repair should be performed in a properly equipped facility by a qualified bicycle mechanic, using the correct tools and procedures specified by the manufacturer.

Break-in Period

Your bike will last longer and work better if you break it in before riding it hard. Control cables and wheel spokes may stretch or “seat” when a new bike is first used and may require readjustment by your dealer. Your Mechanical Safety Check will help you identify some things that need readjustment. But even if everything seems fine to you, it is best to take your bike back to the dealer for a check up. Dealers typically suggest you bring the bike in for a 30 day check up. Another way to judge when it is time for the first check up is to bring the bike in after 10 to 15 hours of on-road use. But if you think something is wrong with the bike, take it to your dealer before riding it again.

After Every Long or Hard Ride

If the bike has been exposed to water or grit, or at least every 100 miles, clean it by wiping it clean and lightly oil the chain with Teflon lubrication or a synthetic based chain lube. Then, very importantly, wipe off excess oil. For general cycle lubrication, we suggest using lightweight mineral based oil that is commonly available in most bike shops or hardware stores. If you have any further questions please talk to your dealer as an incorrect lubricant can damage the painted surfaces.

- Squeeze the front brake and rock the bike forward and back. If you feel a clunk with each forward and backward movement of the bike, you probably have a loose headset. Have your dealer check it.
- Lift the front wheel off the ground and turn the handlebar to the left and right. If you feel any binding or roughness in the steering you may have a tight headset, have your dealer check it.
- Grab one pedal and rock it towards and away from the centre line of the bike; then do the same with the other pedal. Anything feel loose? If so have your dealer check it.
- Take a look at the brake pads. Starting to look worn or not hitting the wheel rim squarely? Time to have the dealer adjust or replace them
- Carefully check the control cables and cable housings, any rust? Kinks? Fraying? If so have your dealer replace them.
- Squeeze each adjoining pair of spokes on either side of each wheel between your thumb and index finger. Do they feel about the same? If any feel loose, have your dealer check the wheel.
- Changing components on your bike with non-genuine parts may compromise the safety of your bicycle and void the warranty. Please check with your dealer before changing any safety-critical components on your bike.

- Check to make sure that all parts and accessories are still secure, and tighten any that are not. When replacement parts are necessary, be sure to use factory authorized replacement parts from your local authorized dealer.
- Check the frame, particularly in the area around all tube joints; the handlebars; the stem and the seat post for any deep scratches, cracks or discoloration. These are signs of stress-caused fatigue and indicate that a part is at the end of its useful life and needs to be replaced.

Warning: Like any mechanical device, a bicycle and its components are subject to wear and stress. Different materials and mechanisms wear or fatigue from stress at different rates and have different life cycles. If a component's life cycle is exceeded the component can suddenly and catastrophically fail, causing serious injury or death to the rider. Scratches, cracks, fraying and discoloration are signs of stress-caused fatigue and indicate that a part is at the end of its useful life and needs to be replaced. While the materials and workmanship of your bicycle or of individual components may be covered by a warranty for a specified period of time by the manufacturer, this is no guarantee that the product will last the term of the warranty. Product life is often related to the kind of riding you do and to the treatment to which you submit the bicycle. The bicycle's warranty is not meant to suggest that the bicycle cannot be broken or will last forever. It only means that the bicycle is covered subject to the terms of the warranty.

Mechanical Safety Checklist

Before each ride:

- Check both wheel axles are secure in the frame & forks
- Check tyres are not worn and are within the recommended pressure limits as indicated on the side wall. It is good practice to carry tyre levers and a puncture repair kit at all times
- Check handlebar assembly is tight and rotates freely
- Check the function of the braking system while stationary
- Check the gear shifters operate correctly
- Rotate each wheel ensuring it rotates freely. Pay special attention to mudguards and fittings if you have them. Ensure they are properly secure and do not foul the wheels
- Check the saddle and seat post are secure and adjusted
- Check the pedals are secure and the chainwheel crank arms are free of lateral movement
- Check lights, reflectors and bell are all in good working order
- During riding note any unusual noises, rattles, creaking or change in performance and immediately check nuts and bolts for tightness. Inspect for other possible damage and go through the check list above. If in any doubt do not ride the bicycle and take it to your dealer for a service.

Monthly and after long or hard rides, the following additional checks/maintenance should be completed:

- Clean, degrease and lubricate your bike
- Inspect tyres for wear, damage and punctures
- Check no spokes are loose, broken or missing

Annual service and inspection:

If you have any doubts about completing and following service and inspection you must seek the services of the professional cycle technician at your local dealer. It is good practice before commencing any service/inspection to thoroughly clean and degrease your bicycle.

Inspect and maintain:

- Frame, forks and suspension parts for damage, cracks, corrosion and deformation
- Wheels for damage, balancing, spoke tension and rim wear
- Brake levers, brake blocks/pads, brake control cables and inner wire
- Chain for corrosion, stiff links and stretch. (Failure to maintain the chain will considerably reduce the performance and life span of the whole gear system).
- Chainwheel cranks are securely fastened to the axle at the correct torque
- Front and rear gears for damage, wear and alignment
- Disassemble headset, clean, re-grease and reassemble making sure to inspect bearings for wear
- Remove seat post from frame, clean and re-grease before refitting.

Cleaning and Lubrication

Regular washing and lubrication not only keeps your bicycle looking in top condition but will actually assist in maintaining its original performance and prolongs the life expectancy of the mechanical components. The chain is the most important component to keep clean as it is the part that wears the teeth on the rear sprocket, the rear gear and the chainset. It is also the key part which transfers your effort into forward motion. If it is clean it is efficient and it is not damaging the gear system.

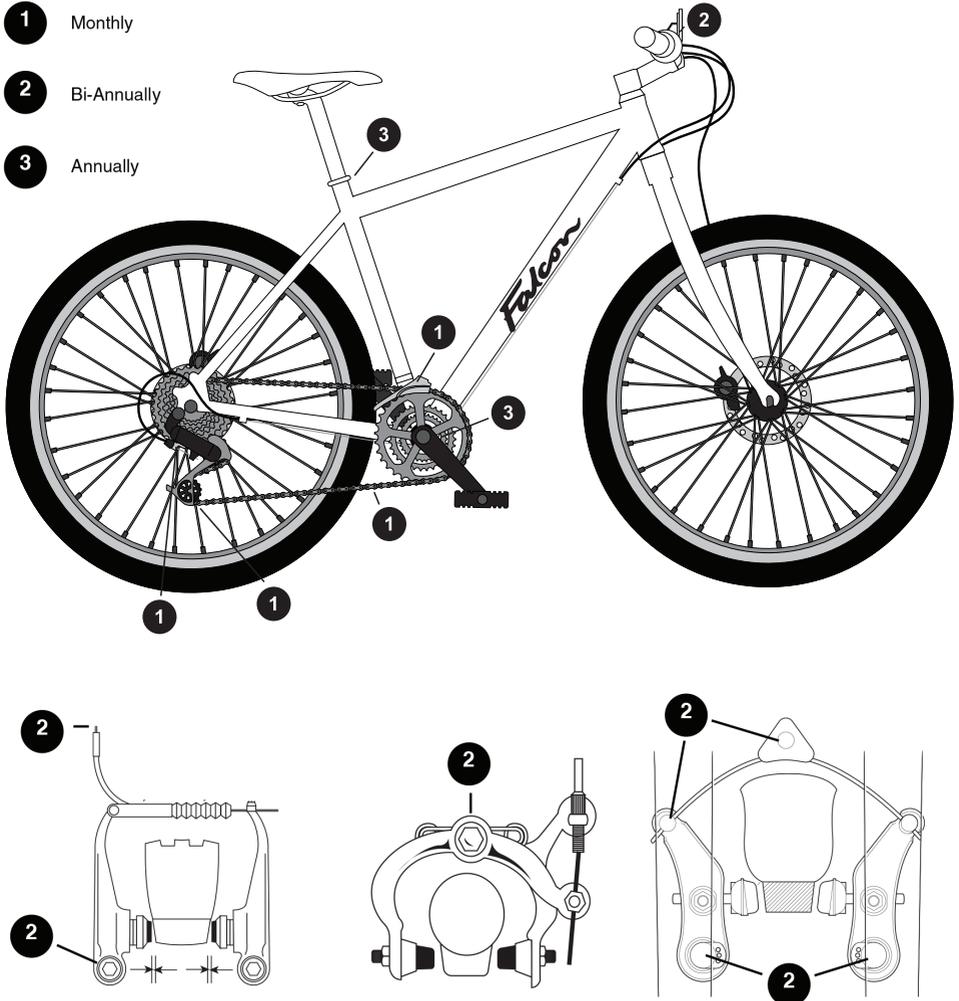
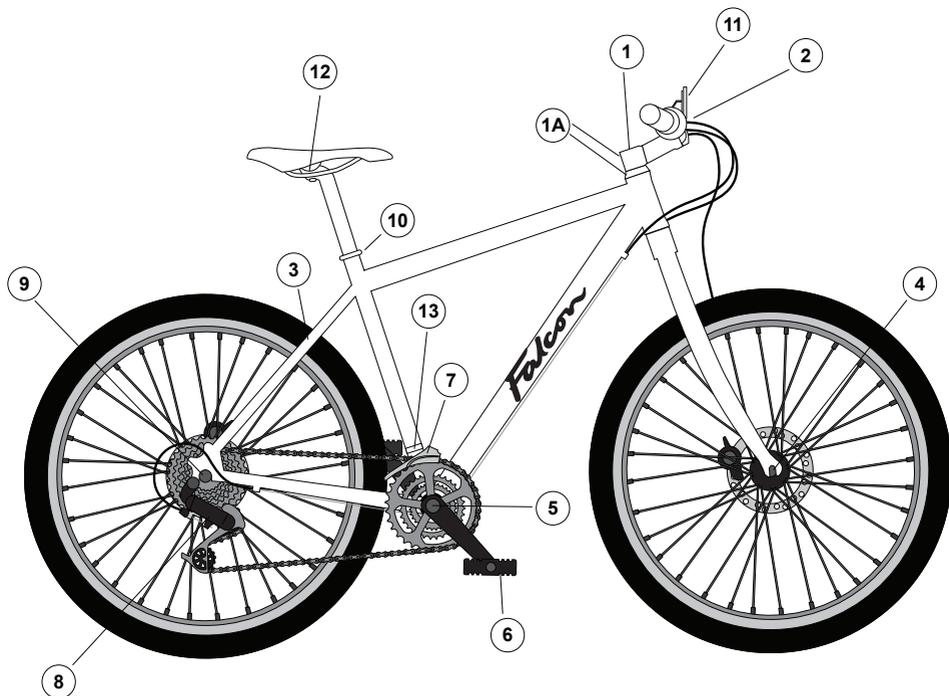


Table of Recommended Torque Values

Only refer to the table of recommended torque values when you have no specific component user manual supplied for that part or the details are reprinted on the component itself.



Important Note: These values are to be used only as a guide. Some components require different torque settings and are indicated on the component itself or in the specific component literature supplied with this bicycle or on the component manufacturer's website online.

DESCRIPTION	TORQUE	
1 Stem Expander Bolt (where fitted)	20Nm	15lb-ft
1A A-Head Steerer Clamp Bolts (where fitted)	10Nm	8lb-ft
2 Stem Binder Bolt	10Nm	8lb-ft
3 Brake Fixing Bolt (non disc) Applies to both front and rear brake	5Nm	4lb-ft
4 Front Axle Nut	30Nm	22lb-ft
5 Chain Wheel Securing Bolt	38Nm	28lb-ft
6 Pedal	40Nm	30lb-ft
7 F/Derailleur Cable Fixing Bolt	4Nm	3lb-ft
8 R/Derailleur Cable Fixing Bolt	4Nm	3lb-ft
9 Rear Axle Nut	30Nm	22lb-ft
10 Seat Pin (Hexagonal Head)	20Nm	15lb-ft
Seat Pin (Allen Head)	15Nm	11lb-ft
11 Front and Rear Reflector Mounting Nut	3Nm	2.5lb-ft
12 Saddle Clamp Bolt (Hexagonal Head)	20Nm	15lb-ft
Saddle Clamp Bolt (Allen Head)	10Nm	8lb-ft
13 F/Derailleur Clamp Bolt	5.5Nm	4lb-ft

Fitting Accessories

Can I fit a child seat to my new bicycle?

If your bicycle has a standard rigid frame then many aftermarket rear child seats will fit (these usually clamp to the seat-tube just above the front cranks/front derailleur). We suggest talking through the many options at your nearest specialist cycle retailer who will be able to advise you on the many features and benefits of the various brands, and price points.

Please note, in general it can be difficult due to the smaller size and tube shapes to fit rear carriers on ladies style frames as they generally have limited clearance for the brackets, or require the saddle to be raised too much for clearance. This can make the bike unsafe or uncomfortable to use. We therefore recommend fitting rear child carriers upon men's style frames.

If your bicycle is a full suspension bike (meaning it has a rear shock or suspension unit) these are not suitable for any type of front or rear cycle carrier that mounts to the cycles frame. The only exception is a child trailer or buggy that fits to the rear axle of the bike.



Can I fit a rear luggage carrier to my new bicycle?

Rear carriers can be fitted in general to all rigid or traditional diamond shaped frames across our range. Many of our frames (model dependant) will have specific mounting tabs on the frame to aid the fitting of a rear luggage rack.

Full suspension frames are not suitable for rear carriers. Traditional carriers cannot be fitted to full suspension bikes. One alternative to this could be to purchase a seatpost mounted rear carrier (such as the one pictured below), although bear in mind we do not recommend carrying more than 10 kg in this way. If further luggage carrying ability is required, a cycle trailer that bolts upon the rear axle is another good option.



National legal requirements when using your bicycle upon the road in the UK

Your new bicycle is required by law if being used upon the road to have white wheel reflectors, a front white reflector, a rear rear reflector, orange pedal reflectors and a bell – all our adult cycles are supplied with these as standard – please ensure they are fitted and clean/visible at all times to ensure your safety and that of other road users, for further up to date on road cycling information please take the time to read the highway code upon the gov.uk website – this has in-depth information upon the current rules and regulations for cycling in the uk

<https://www.gov.uk/guidance/the-highway-code/rules-for-cyclists-59-to-82>

You can email us at:
technical.support@mvsports.com



www.mvsports.co.uk

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