



Mr. Yiwu Yang, the company founder, successfully registered the "SAVA" brand in Germany and established SAVA bicycle creative design team in 2005. Meantime, SAVA introduced the advanced carbon fiber materials and application technology of Titanium from Germany and European countries. Thereby, we built a bicycle park in Huizhou, China and set up sales branch respectively in overseas and Beijing. Our personnel commitment is to creating advanced, technologically as well as high-end bicycle popularization.

The SAVA brand obtained registration permission successfully in Germany. SAVA aspires to be the international first-class enterprise with the prospective international strategies, abundant scientific research strength, strict working attitudes and the good quality and service system of the pursuit of excellence. The designer puts his attitude towards fashionable life and the concept of striving for excellence into every bicycle which has been exposed to Germany, American, Belgium, Holland, Russia, Australia, Mexico, the Philippines and many other countries and regions. Meanwhile, SAVA tightly grasps the opportunity of the domestic market transformation and the internet development. In the economic downturn of the whole industry, SAVA develops against the trend and successfully seizes the high-end markets. And not only that, it wins the honor of top business title and the products are favored by millions of consumers. SAVA now has already been synonymous with the high-end bicycles, and SAVA aspires to become the leading brand of carbon fiber & titanium alloy bicycles.

To dear consumers:

You have already chosen an excellent bicycle which has been designed elaborately and tested comprehensively in order to ensure the highest security and comfort. The proper maintenance is necessary so as to make you enjoy the greater pleasure of bike riding. The instruction book is not a professional service manual, but it can explain and clarify how you can use bicycle well comfortably in assembly, safety up keep and maintenance. If there are something that you cannot completely understand in the specification, you can go to the nearest store for consolation.

Bike riding is an outdoor activity. Even though under the safe condition, it is an essential precondition for your own bike before riding in that it can increase safety factor. Meanwhile, this brochure introduces some knowledge about safety riding. Please read carefully to ensure your personal safety. Here I wish you to enjoy the pleasure of riding in your spare time and also gain the infinite happiness and achieve accessibility in bike riding.



The advantages of bicycles

1. Short-trip transport

Governments of developed countries begin to limit and advocate bicycles after the urban traffic congestion becomes the obstacles of influencing economic development. Even though the large-scale cities with further average trip distance do not entirely reject bicycles but regard them as a good supplementary means of public traffic system through rational planning, among which some well-known international cities achieve a lot, represented by Armstrong in Homeland, London in England, Paris in France, Tokyo in Japan. According to China's relevant experts' theoretical calculation about traffic rush hour: cars transport 500 persons per hour, motors transport 720 people per hour and bicycles transport 1000 people per hour.

2. Environmental protection

On April 22nd, 2007- World Earth Day, Chinese Cycling Association (CCA) assists some environmental protection organization in holding the activity named "measuring carbon dioxide emissions". The test result shows: As 15 km distance calculation, the emission of carbon dioxide of riding a bike is proximate zero (neglect cyclists consumptive resources and the consumption of resources in making bicycles). The emission of taking a bus (each bus can accommodate 30 people) is about 0.2 kilogram. However, the emission of driving a car (each car takes 4 people) is about 1.1 kg per person.

3. Good choices for leisure tourism

In recent years, a new kind of traveling rises. The bike trip is an outdoor aerobic exercise which sets leisure, entertainment, making friends and fashion in one and is suitable for men, women, old and young. Not only is it environmental but also it saves transportation costs. It is convenient, swift and non-polluted. Every weekend or holiday, you can invite some good friends and beloved bikes riders to out skirts to leisurely enjoy the infinite pleasure of taking bike trip, appreciate the beautiful scenery of nature, completely bathe in the sunshine, enjoy fresh air and pursue a way of life that is more beneficial to physical and psychological health and also delights people's mood.

4. Tools of exercise and fitness

Because of the particular requirements of cycling, the back of the hand and body work motionlessly while two legs work dynamically. When the blood is redistributed, lower limb has more volume of blood supply. The variation of heart rate differs depends on the speed of pedaling and the ups and downs of relief, and the internal organs are in badly need of adding some nourishment. Therefore, heart beats are once or twice quicker than ordinary times. Repetitious practices like this will make myocardium developed, heart big, myocardial contraction powerful and the elasticity of vascular wall enhanced. As a result, pulmonary ventilation volume is enlarged, lung's capacity increases and the lung's respiratory function improves. Therefore, there are some benefits in riding bikes very often, which are as follows:

1)It can prevent the aging of human brain.

2)It can improve cardiovascular-pulmonary function. Riding a bike is one of the best tools of getting rid of cardiovascular-pulmonary function diseases.

3)The effect of the endurance training of inner organs is the same as swimming and running in bike riding. This exercise not only benefits the lower limbs: hip, knee, ankle, elbow and 26 muscles, but also make the muscle joints and ligaments in neck, back, waist, ass, buttocks and groin keep corresponding exercises.

4)It can lose weight.

5)It can prolong life

Catalog

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Structure and name of bicycle

Road Bike



No.	Parts Name	No.	Parts Name	No.	Parts Name	No.	Parts Name	No.	Parts Name	No.	Parts Name
1	frame	2	fork	3	handlebar	4	Stem	5	Grips	6	crankset
7	headsets	8	BB Parts	9	pedal	10	chain	11	flywheel	12	Front derailleur

Know the bicycles.



Mountain Bike



No.	Parts Name	No.	Parts Name	No.	Parts Name	No.	Parts Name	No.	Parts Name	No.	Parts Name
13	Rear derailleur	14	Shift lever	15	Shift cables	16	brakes	17	Brake cables	18	Brake cable housing
19	Front hub	20	Rear hub	21	spoke	22	rim	23	Outer tube	24	Inner tube
25	Seat post	26	Seat clamp	27	saddle	28	Bottle cage bolts				



Choice of bicycle models



Mountain bike

Sturdy frame, the hardness and strength are relatively high and tire is larger, increased friction with the ground, good control performance and driving pleasure for athletics, goes for Cross-country Mountain, forest road and more extensive area.



Road bike

To pursue more brisk efficient tread, the bicycle is lighter from other models, tire is thin to reduce the friction on the ground, and reduce consumption of inertia when the bicycle is in driving, suitable for highway athletics, sports and leisure, etc.



Traveling bike

More targeted models, the perfect load system design, so that the baggage is no longer a trouble for riding, more durable parts, suitable for commuter family touring, long-distance travel.



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Folding bike

Small, lightweight, fashion are the features of the models, folded design way, greatly improve the portability of the bike and rich life fun. Suitable for city commuting, walking, play.



Frame size and height

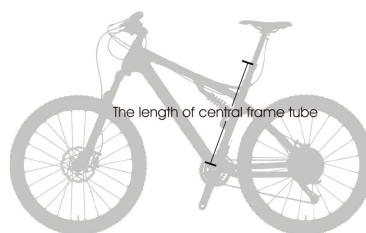
Bicycles are designed according to the function of human body; suitable size can not only reduce the sports injury, but also can enhance the comfort and pleasure of riding.

General measurement methods:

Across the frame, feet on the ground, legs and tube distance is about 2.5 centimeters, almighty bike is about 5 cm. The distance between upper tube and head tube combination is for the frame of female models is about 2.5 centimeters.

General frame marking method:

Tire diameter x frame middle tube length (from the center of bottom bracket to top of seat post). E.g.:26"x17" shows that 26 inch rims and 17 inch middle tube height.



know the bicycles



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Comparative table between frame size and height

Nowadays, there are a large number of bicycle brands in the market, each brand has its own way of measuring the size of the data, and the most commonly used way is the data expression pattern like 16、17、18、19 inch or 460mm、480mm、500mm、520mm, it means the distance from the center of bottom bracket and the upper end of the middle tube. We can often see that many entry-level riders is not familiar with the bicycle size when choosing a bicycle, leading to failure to select the most suitable for their own bike.

Comparative table between frame size and height(remark: below parameters just for your reference.)					
Mountain bike			Road bike		
Height	wheel size(inch)	stem size(inch)	Height	Wheel size	stem size(mm)
145-160cm	26	14.5 or 15.5	145-160cm	700c	465
155-170cm	26	16	160-170cm	700c	480
165-175cm	26	17	170-180cm	700c	500
170-180cm	26	18	180-190cm	700c	520
175-185cm	26	19	185cm up	700c	535
180-185cm up	26	20 or 21			



We offer above sheet for riders reference in order to help them to select the most suitable bikes.



Installation of bicycle

1)The installation of saddle

- 1.Put the seat post inserted into the middle frame, and the safety line should not be exposed after installation. (picture 1)
- 2.Installation angle is $90^{\circ} \pm 2^{\circ}$ between the saddle and the seat post, screw locking torque value is 150-180kgf/cm.
- 3.Quick release lever locking push pull is 13-15kgf/cm. (picture 2)
- 4.Screw type seat clamp locking torque is 35-40kgf/cm. (Limited road bikes)



2)Installation of handlebar and stem

- 1.The angle between handlebar and stem is parallel, and the angel of brake handlebar is 35-45 degrees.
- 2.Locking screw torque for each specifications, pls reference to the back screw torque meter.
3. Assembled stems is seen as a straight line with the upper tube of frame.(Visual)
- 4.If stem is the insert type, please note that the insert size cannot exceed the minimum insertion mark (safety line)



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3)Installation of pedal

- 1.The thread of the left pedal is reverse thread, and the direction of the lock is counter-clockwise direction, L stands for the left.
- 2.The thread of the right pedal is positive thread, and the direction of the lock is clockwise direction, R stands for the right.
- 3.The locking torque of the pedal: 20-30kgf/cm.



4)Installation of the front and rear wheelsets

- 1.Put the front or rear wheelsets of standard specification in the front fork and rear fork drop out, and set up the safety spacer, then lock retaining nuts (locking method is quick release type , please refer to the back installation method), torque refers to the torque meter at back.
- 2.Make sure that the standard of the distance between left and right front fork and left and right rear fork is A-B less than 2mm.(Figure 1)



Figure 1

Figure 2

Figure 3



3.The installation of the front and rear wheelsets quick release

① Whether to open or lock the quick release, you should tighten or relax it with quick release nut through manual adjustment. Please do not turn the handle to adjust it. It is easy to wear the front frame, the rear fork and the quick release nuts if do like this, meantime it is unable to achieve the purpose of locking the quick release.

② Screw the nut to fit the position first when you lock the quick release, to produce resistance when the quick release lever is pulled in the same straight line with axis, and then push the handle with the palm to quickly lock the quick release. When the quick release is in position, the power it needed will diminish relatively. If the power it needed will increase all the time, it shows that it is too tight; if it is easy to push, you should loosen the handle, and loosens or tightens the nut slightly, and locks tightly until it needs greater power to push the handle and can arrive at the locked position.



Lock wrong way



open the quick release

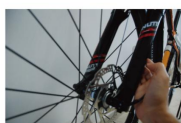


Lock right way:tighten the quick release directly to the nut



Push the handle to horizontal position then if you can feel the quick release with resistance, it shows that is close to locking strength

③ Before each start riding, or after stopped for a while in public, you should check whether the quick release is strong. First, observe whether the quick release is locked, if not, you should re-lock the quick release. After locking the quick release, you can lift the wheelset and beat the tire with your hands towards the floor (beat the rear tire towards the axis direction) until the wheelsets have no movement or drop.



use palm to lock quick release, if you feel a certain resistance then ok.



pat tires with down



it is easy to crash if lock out at this position with front quick release.



right lock position with front quick release.

④ The position of the quick release handle should be not easy to touch when riding. For the front wheelset, you should try your best to fix the handle to the front fork; for the rear wheelset, you should fix the handle between the rear upper fork and lower fork or in the parallel position of the back and rear fork. In addition, both the front wheelset and the rear wheelset can not allow the direction of the quick release handle being down.

⑤ The key point of routine maintenance is cam and thread lubrication, and add grease to the cam can reduce wear while add grease to the thread can prevent corrosion and thread bite. If the quick release handle is not easy to lock, you need add grease at cam.

4.The locking force of front and rear wheelset quick release is 13-15kgf/cm (attention: the direction of installing wheelset: the direction of front tread pattern and rear tread pattern are same.)



it is easy to crash if lock out at this position with rear quick release.



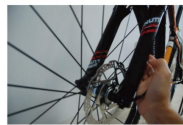
right lock position with rear quick release



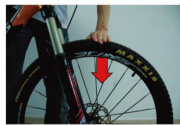
quick release lubrication



Note: 1. Can not tighten quick release with spinning the handle. 2.The quick release must be locked in place. 3.Check whether the quick release is locked before start riding.



use palm to lock quick release, if you feel a certain resistance then ok.



pat tires with down



it is easy to crash if lock out at this position with front quick release.



right lock position with front quick release.

④ The position of the quick release handle should be not easy to touch when riding. For the front wheelset, you should try your best to fix the handle to the front fork; for the rear wheelset, you should fix the handle between the rear upper fork and lower fork or in the parallel position of the back and rear fork. In addition, both the front wheelset and the rear wheelset can not allow the direction of the quick release handle being down.

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it is easy to crash if lock out at this position with rear quick release.



right lock position with rear quick release



quick release lubrication

⚠ Note: 1. Can not tighten quick release with spinning the handle. 2.The quick release must be locked in place. 3.Check whether the quick release is locked before start riding.

5) Installation and adjustment of brake system

⚠ The last security line of a bicycle is its brake system. If there is a problem with the brake system, it will lead to disastrous consequences, so the correct adjustment of the brake is essential.

- 1.V-type brake block must be kept parallel with the rim, keeping the 1-2mm gap after adjustment and cannot be skewed. (Fig. 2)
2. The brake line and the flat brake must be installed in place, and the end plug cannot be exposed. (Fig. 7)
3. The locking torque of the brake screw: 20-30kgf/cm (Fig. 1)
4. Adjust the elastic force of the brake, the two sides must be consistent and the elastic force must be uniform. (Fig. 3)
5. Do not to interfere the brake lining with the brake pad after installing brake. There should not be any friction sound. And left and right gap is 1mm. (Fig. 4)
6. The screw locking torque of the brake line is 20-30kht/cm.
7. The hydraulic brake line pipe can not be wrinkle and knotted to prevent from leaking out of oil. The way to adjust is to loosen clamp body first, then turn the wheelset, and then adjust screw after gripping the brake, finally release the brake handle. (Fig. 5)

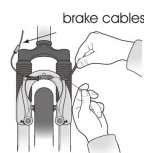


Fig.1

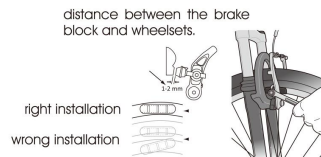


Fig.2

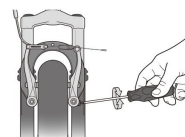


Fig.3



adjustment of disc brakes

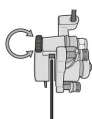


Fig.4



adjust the brake cables
Fig.5



adjust the gap of brake block
Fig.6

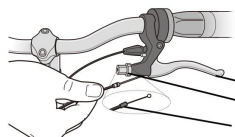


Fig.7

brake handlebar
micro adjust nuts
brake cables

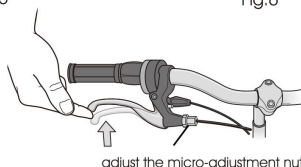
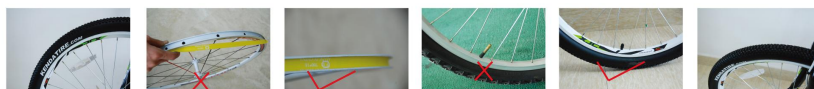


Fig.8

adjust the micro-adjustment nuts

6)The installation of the outer tube

- 1.Front and rear tires must be consistent (including tire, rim, spokes, hub, quick release).
- 2.Install tire in clockwise direction (note:There is an arrow on the tire.)
- 3.Check the rim lining and make sure that it totally covers copper head , and check if there is anything in the rim, if it has, remove it to protecting the tire.
- 4.Make sure that the left and right safety line evenly surfaced when inflating.
- 5.Gas pressure value is by reference to the standard requirements marked in the tire.
- 6.The tire valve can not be skew.
- 7.The installation of the folding bicycle same as up



7)Installation of reflectors

- 1.You just need a cross screwdriver to install the reflector. And the front reflector is white (Fig 1), while the rear reflector is red. (Fig 2)
- 2.When the positive reflector is installed, it must be 90 degrees to the ground.
- 3.Installation of wheel reflector.

Front reflector



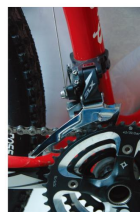
Rear reflector



8)Installation and adjustment of the front derailleur

The most important part of a derailleur bicycle is its transmission system. As the name suggests, the bicycles without the transmission systems can not be defined as the derailleur bicycle. Its main charm lies in skilled operating on the transmission system to make the bikes more light. So the adjustment of the derailleurs is different.

- 1.Make sure that the model of the front derailleur and the frame alignment mode is consistent. (includes pull up and pull down)
- 2.The distance between the external paddles of the front derailleur and the crankset should been kept in 1~3mm and parallel. The locking torque of the screw is by reference to screw locking torque meter at P35.



pull up front derailleur



pull down front derailleur



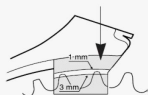
SAVA

Adjustment steps

1. Fix the clamping ring on the seat post

Adjust up and down position to make sure that the height of the front derailleur external paddles and the wheelset maximum tooth kept in 1~3mm, and the front derailleur external paddles and the wheelset should be parallel.

Designed calibration support



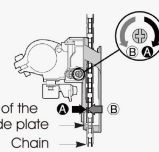
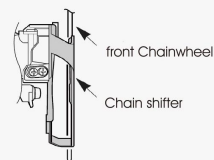
Designed calibration support



2. Adjust RD to low tooth position. (RD: rear derailleur FD: front derailleur)

① Keep the low level adjustment RD in low tooth position, and adjust FD low position limit screw L to make the gap between inner guide and chain is 0~0.05mm.

② Operate the left derailleur handle a few times, back in place, micro adjust, loosen the fixed shift cables for 1~2 circles after screwing the bolt to the end. (steel wire clipped in slot), pull hard steel wire for 2~3 times (pay attention to the position of the front derailleur, and prevent damaging the front derailleur).



Low side Chainwheel, adjust the bolt nut

The inside of the chain guide plate
Chain

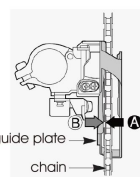


5mm angle wrench
Upper route

Locking torque
5-7 N/M (50-70 kg/cm)

Note: please pass through the inner cable as picture shows

③ High level adjustment: adjust FD and RD to high speed gear; adjust the high position limit screw (H) with screw driver to make the gap between external guide and chain is 0~0.05mm.

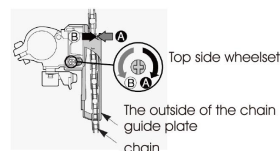


The inside of the chain guide plate

chain

④ Adjustment of middle chainwheel: adjust FD to middle chainwheel FC:M adjust RD to low tooth position CS:L adjust with trimming bolt to make the gap between internal guide and chain is 0~0.05mm.

⑤ To confirm the transmission is smooth and without chain-off phenomenon.



Top side wheelset

The outside of the chain guide plate
chain

! Attention: the reasons why FD is not smooth or why the chain drops out:

1. wrong height of FD .2. FD guide is not paralleled with chainwheel piece. 3. Wrong adjustment of high and low position screw 4. too close or too loose for the tension of the steel wire 5. wrong steel wire locking line 6. too large for Internal friction 7. wrong center line of chain. (too short or too long for BB)

Installation and adjustment of RD

1. RD includes parallel and straight types.

2. The straight RD should be parallel with the rear drop out when assembled.

3. The screw locking torque pls reference to P35.



straight RD



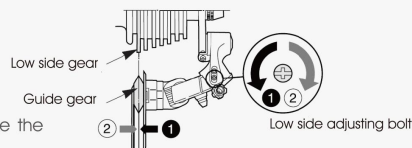
parallel RD



adjustment steps for RD:

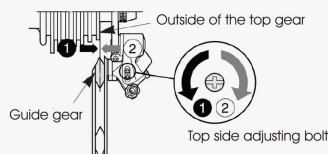
1)Low level adjustment

Adjust the low position limit screw (L) with cross screwdriver to make the guide wheel align with the maximum flywheel center.



2)High level adjustment

Adjust the high position limit screw (H) with screwdriver to make the guide wheel center align with the outer edge of the minimum flywheel piece.

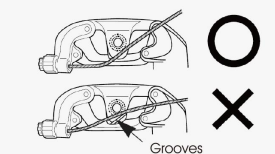


3)Return the derailleur handle back to the original position.

Micro-bolts, loosen the fixed shift cables for 1~2 circles after screwing the bolt to the end. (steel wire clipped in slot), pull hard steel wire for 2~3 times (pay attention to the position of the rear derailleur, and prevent damaging the rear derailleur).

4)Adjust FD& RD to low tooth position FC:L CS:L

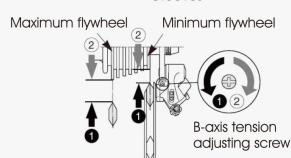
Adjust the tension screw to make the wheel as close as possible to the flywheel piece but cannot be touched; and then put chain at the minimum flywheel piece. And repeat the above steps to make sure that the guide wheel can not touch the flywheel piece.



5)make sure that there is no different tone or off- fear when the gear shifts

FC: T → L → T CS: T → L → T

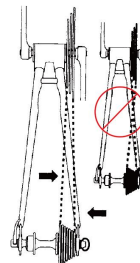
Adjust the steel wire with trimmer screw



! Attention: the reasons why RD shift is not smooth or why the chain drops out:

The tension of the steel wire is too close or too loose. 2.The steel wire locking line is wrong. 3.Internal friction is too large. 4. Chain stay drop out is out of shape. 5. The adjustment of high and low position screw is wrong.

(Pay attention to the use of derailleurs and sliding zone between the large flywheel and the small flywheel. When the chain is in the maximum tooth disc of the large flywheel, make the small flywheel do not get into the large tooth disc as far as possible; and when the large flywheel is in the small tooth disc, make the small flywheel do not get off the small tooth disc. We doing this to prevent chain from damaging or chain blocked.)



General use and maintenance instructions

1.Check the reliability and flexibility of the front brake and rear brake before riding. If found the brake failure, you should get off immediately to adjust to avoid accidents. When the brake shoe wear affect brake function, please replace the new brake in time.

2.The front and rear tire inflation should be appropriate. If inflate too much, it will bump violently when riding; If inflate too little, it will affect the speed when riding and make the tire wear and the inner tube break and leak.

3.After riding the new bicycle for a period of time, you should do a comprehensive testing and adjustment to make sure that each fastener is effectively locked and each rotating parts is flexible.

Pay attention to add lubricating oil to all rotating parts. In the case of loss of oil, you must not continue to use the bicycle.



5. After the plating parts affected with damp, you should pay attention to dry it in time. Paint parts should not be sealed with plastic sheeting to preventing from film falling off light, and the paint parts cannot insolate with the sun directly, or it will cause early aging.

6. Your bicycles should be placed in a dry and ventilated place to avoid contact with corrosive gases and liquids.

General trouble and simple repair common sense

1. Tire leakage

First tighten the valve nut, and check whether the rubber tube on the valve core is damaged or not. If damaged, update it. And if the tire leaked again which should be the tire breakdown, you should repair it immediately or change the inner tube.

2. Handlebar loose

Loosen the handle nut and then correct orientation, finally tighten the nut.

3. Front and rear axle adjustment

Too loose or too tight front and rear axle will affect the operation. Adjust the way and the loosen the nut, and adjust shaft gear to the minimum clearance with skeleton spanner, finally tighten the nut after straightening the wheel to the middle position of the fork.

4. Chain off

If the chain is too loose, loosen the rear wheel nut and pull back the rear wheel if it is not wear elongation. The tightness of the chain can be kept down to 10-15mm. Finally tighten the rear axle nut (for bicycles without transmission system).

5. Rim swing

If it is caused by broken spokes, you must update the spokes and make correction. If it is not caused by this, you need to adjust the spokes.

6. Abnormal sound

If there is a sound, inspect the sound source carefully, adjust and tighten the relevant fasteners one by one. If you found the creak sound of the chain, you should add oil to the chain to keep it lubricated. If there is a sound in the front and rear axis or pedals and other parts, you need to open the inspection shaft gear and check whether there is a crack or damage to the bowl and the steel ball, and immediately replace them (if part of the steel ball wears, you'd better update all).

7. Breakdown and maintenance

When there is a complex problem or you do not know how to repair, you should sent the bicycle to the store to repair.

8. General spare parts

Brake assembly, inner tube and outer tube can easily be damaged, so you can equip in advanced to meet the specifications, or purchase the spare parts in bicycle shop.

The installation methods of folding bicycle

Folding the portable bicycle that you bought is a simple matter, you only need to spend a little time to complete it. According to the correct operation way and steps to practice, you can fold the bike in 15 seconds, but it must be operated in accordance with the correct folding sequence and method.



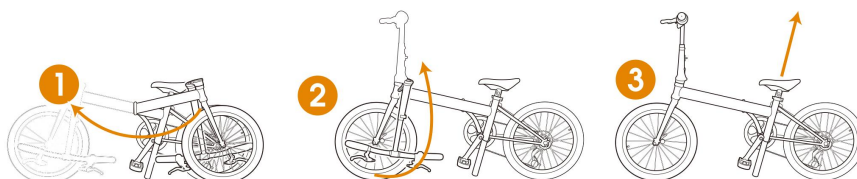
! Attention: You must ensure that your bicycle is carefully checked and adjustment by bicycle technician before your first riding, so that it can ensure your bicycle is in good condition; only correct operation according to the instructions, can you fully enjoy the simplicity of portable bicycle; bring convenience and fun to your life.

spreads

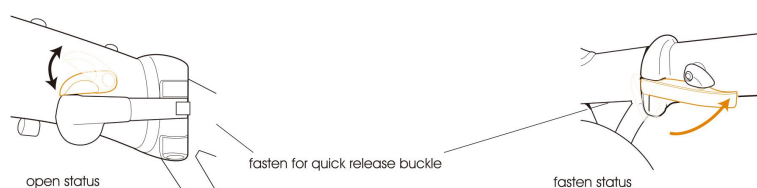
1.Put the bicycle according to the picture, and stand on the side of the crank-set to be ready for spreading your bicycle.

2.To ensure that the frame lock control lever is located in the open position. And to ensure that the frame lock control lever is twisted with the upper end of the hand (left turn).

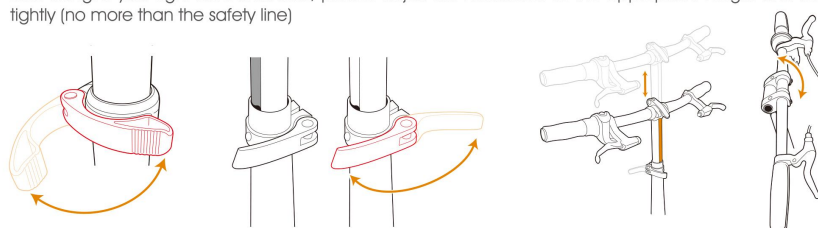
! Shelf load can not be greater than 25kg.



3. Expand the front and rear parts of the frame, and control the rod of the frame until it is turned to the locking position, and then press down the locking handle of the vehicle frame. And pay attention to close the frame quick release locking 15-20kgf.cm. Arrange the control rods on the top (frame to front controller syndrome with 8kg closure). The frame is automatically locked if you heard a clicking sound. Expand the front and rear parts of the frame, and spin the control rod of the frame to the locking position, and press down the locking handle of the vehicle frame. Pay attention to close the frame quick release locking 15-20kgf.cm.



4. Rotate the frame to the normal cycling state, and then use the locking frame method to lock the vertical tube, after that, close vertical tube quick release locking 15-20kgf.cm. Rotate the handlebar to the normal cycling state, and press the stem tube fast lock and then buckle the safety hook to ensure safe riding. If your tight tube is double, please adjust the handlebar to the appropriate height and lock tightly (no more than the safety line)



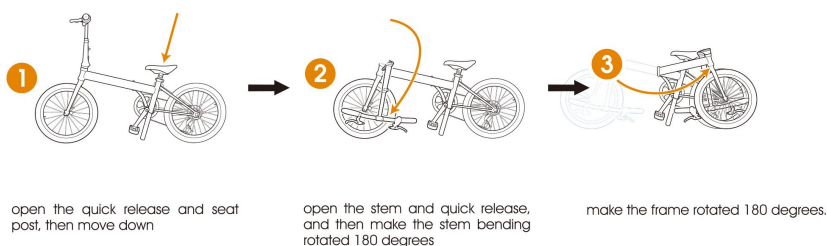
Adjust the position of the handlebar to the normal state of cycling, loosen controller with your hand clockwise, then tighten to ensure a safe ride.

! Note: before each ride, please ensure below terms:the frame lock and the stem tube lock if it is fastened; brake system if it is normal; the tire gas if it is sufficient.



Folding

Loosen the fast lock on the stem tube, and put it to the bottom and remove it. Off-handlebar if your bicycle is double stem tube, then loosen the quick release, and press down the handlebar to the appropriate position and lock it, rotate the safety clasp, open down the fast lock, split the handlebar off. Adjust the position to normal riding state, rotate the control rod clockwise, split the handlebar off, rotate the frame lock controller back to 180 degrees, and open the frame lock and place it in the top of the control rod, rotate back 180 degrees, open the frame lock to ensure the frame lock controller, rotate the frame lock controller back to 180 degrees and open it. Fold the bicycle from the middle of the frame until the two wheel seat tube quickly opened paralleled, then lower the tube and close the quick release. If you are using a demolition pedal, you can now control the rotation disc to simply take off the pedal; if you are using a folding pedal, you can quickly turn it to the folding position. Now you can easily transport and store the folding bicycle.



Adjust frame and stem tube

Although you already adjusted the quick release in advance, you still should adjust it at regular time to guarantee it in good condition, besides, the switch of fast-locked should be 15-20kgf. cm strength after appropriate adjustments.

Warning:

If you do not know any adjustment, please take your bicycle to the exclusive shop and ask professionals to adjust the quick release according to the following steps: use the outside hexagonal wrench to lock the nut in clockwise direction, and unlock the nut in contrarotate direction, every time debugging to 45 degree is preferred. Adjusting the bolt to 15-20kgf. cm strength can open or lock the frame lock. Switch back and forth several times to insure it has been suitable adjusted, and then add one drop of loc-tite glue in case of losing.

Warning:

If the frame or stem lock is adjusted too loose, cyclists may get hurt, and the folds can also be seriously damaged. If they are adjusted too tight, the fast-locked bolt will be damaged. Please check the frame and stem lock every time before cycling. Pay attention please: after you ride 30 miles for the first time, please check the crank nut to insure it is tightened and the cyclist is safe. Besides, check the brake, tyre, handlebar and lighting regularly, and increase the braking distance in the rain. The preparation and equipment method of the saddle before using: assemble seat post, lock slightly, then install the seat post and move it top-down on frame to a suitable position, the insertion depth of seat post should not lower than the safety line.



Adjust and check the new bicycle

1.The screws of new bicycle may loose easily, so after riding for a few days, the bicycle should get an overall check and lock all loosening screws. Especially for the pedal screws, if they are not checked and locked timely, the whole pedal will fall off and accidents may happen.

2.Pay attention when blowing up the front and rear tire: A) After blowing up a certain amount of gas, turn the rim and hit the tyre equally to make sure the tyre is closely attached to the rim.Keep blowing in case of tire burst due to bad attachment. B)To blow up appropriate amount of gas, excessive gas may result in tire burst or intensify vibration when cycling,and insufficient gas may lead to folding crack of the tyre wall and drag increment.

3.About the derailleur of bicycle, the shift gears should be changed during cycling. Do not stir the shift lever when the bicycle is in static condition, in case of making abnormal noises with chain and derailleur or flywheel.

4.When shifting during cycling, it is forbidden to shift in the location of the two extremes, namely,the chain to the position of small flywheel for small crankset or big flywheel for big crankset, to make sure the bicycle operates smoothly and avoid off-chain.

5. Adjust the derailleur and chain: If the derailleur has high-speed failure, please take following measures to solve it: stir the gear shift lever, if it does not work, loose the tight rope bolt of derailleur, then strain the steel sling and tighten the tight rope bolt. After stirring the gear shift lever and loose hand, if the gear shift lever resume to its original position, recheck if the chain has stiffness.If so, add some oil to lubricate, meanwhile swing the chain by hand forward and backward until it rotates flexibly.

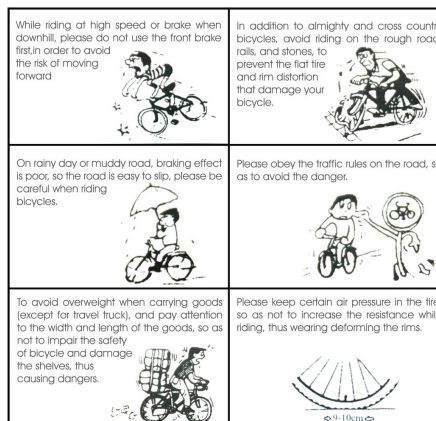
6. To lubricate: the moving parts of the bicycle should be lubricated every two months, for example, the chain, BB parts, and headsets can be lubricated by butter, but chain and brake components can use engine oil to lubricate effectively.

7. Check brake, tyre, handlebar, and lighting regularly: increase the braking distance in the rain.



Safety warnings and recommendations for safe riding

Bicycle is designed in accordance with a variety of functions and uses. Please purchase according to your requirements. Pls practice in the safe and flat place if you can not ride, then can riding on the road, but for your safety please pay attention to the following matters.



SAVA's guarantee and obligation

1. In the warranty period, if the Sava bicycle you bought has any problems on the following parts under normal status and use in accordance with the operating instructions, you can ask for free repair from the exclusive shop or mall with the customer warranty card.

Warranty products	Warranty period	Remarks
Frame	Three years from the date of purchase	Frame crack caused by non external force
fork	One years from the date of purchase	Abnormal fork under normal use
General parts	Six months from the date of purchase	For example, hub, crankset, handlebar, stem

Remarks: In addition to the above parts, other parts of consumables is not within the scope of the warranty (for example: outer tube, inner tube, brake block, brake line, shift cables...)

2. The breakdown caused by any of the following circumstance is not suitable for the warranty repairs, instead the exclusive shops can provide repair service, but they need to charge costs and repair costs deliberately.

(1) Failures caused by not using and maintaining in accordance with the instructions.

(2) Accidental collision or wrong use.



(3)After being repaired by non Sava special repair shop or replacement of non original parts of the company.

(4)Operating lease or not abnormal use.

(5)Due to the consumption of consumables, not maintain or replace timely, resulting in other parts having fault or being damaged.

(6)Stabbed by nails, glasses, cutting pieces, sharp stones and other objects, causing tyre leakage or burst.

(7)Causes of the irresistible natural disasters.

(8)This warranty card is limited to the provision of free repair services, and does not bear the burden of any legal liability

The Sava bike and goods purchased on the Internet are not within the scope of the warranty.

Inspection and Maintenance

When using bicycles, many parts will wear, the fastener like screws are also easy to loose. If you not pay attention to the occurrence of these phenomena, and parts are easy to fail,so dangers are likely to happen when riding. Therefore, you must make regular inspection and maintenance.

Maintenance

In order to ensure safety riding, you should be check all screws if loose at every month, action position is normal or not.And maintain such as brake,derailleur regularly in order to keep the normal function of various parts.

Regular Inspection and Maintenance Schedule

◆	Adjust	★	Check or Clean and Update	●	Change	▲	Tighten	▼	lubricate
Inspection Items				New Buy	60 days	180 days	360 days	540 days	720 days
If handlebar are matched with the height of saddle				◆	◆	◆	◆	◆	◆
If the driver rotation, turning parts are moving wear and tear				▲	★▼	★▼	★▼	★▼	★▼
If the handlebar rotation, turning parts are moving wear and tear				▲	★▼	★▼	★▼	★▼	★▼
If the pedal, main parts are moving and wear				◆	◆	★	★	★	★
If the front and rear hub axle is loose and wear				▲	★▼	★▼	★▼	★▼	★▼
If the chain is too loose				◆	▼	▼	▼	▼	▼
If the brake is flexible and good				◆	◆▲	◆▲	◆▲	◆▲	◆▲
If the brake block wear				◆	▲	★	★	★	★
If the position of brake lever is appropriate				◆	◆	◆	◆	◆	◆
If the crankset , crank deform				◆	▲	▲	▲	▲	▲
If the rim swing and deform				◆	◆	◆	◆	◆	◆
If the spoke is broken or loose				◆	◆▲	◆▲	◆▲	◆▲	◆▲
If the fender deform and damage				◆	◆	◆	◆	◆	◆
If the frame and fork are deformed or bruised					▲	▲	▲	▲	▲

Warranty records

[illegible]

- | | |
|---|--|
| 1. Headset top cover screw locking torque: 20-50kg/cm | 10. Crankset locking torque: (aluminum) 350-450kg/cm |
| 2. Stern/with toothless front fork/locking torque: 80-120kg/cm | 11. Integral type BB left and right bowls locking torque: (steel) 500-700kg/cm |
| 3. Stern/with toothless front fork/locking torque: locking torque: M5: 50-60kg/cm, M6: 60-80kg/cm | 12. Side bracket fixed screw locking torque: 80-120kg/cm |
| 4. Brake handlebar fixed screw locking torque: 50-70kg/cm | 13. Lock speed cable fixed screw locking torque: 50-60kg/cm |
| 5. Derailleur lever fixed screw locking torque: 40-60kg/cm | 14. Lock brake cable fixed screw locking torque: 60-80kg/cm |
| 6. Brake fixed screw locking torque: 60-80kg/cm | 15. Saddle clamp fixed screw locking torque: 160-200kg/cm |
| 7. Disc fixed screw locking torque: 20-40kg/cm | 16. Water bottle cage bolts fixed screw locking torque: 20-30kg/cm |
| 8. Front derailleur fixed screw locking torque: 50-70kg/cm | 17. Saddle quick release locking torque: 13-15kg/cm |
| 9. Vertical type rear derailleur fixed screw locking torque: 80-120kg/cm | |



NO	Name	Model	Tighten torque value	
1	1 #bowl locking torque		300-350kgf. cm	
2	Head parts top cover locking torque	M5	50-70kgf. cm	
3	Head parts top cover locking torque	M6	80-100kgf. cm	
4	The gap between the 1 #bowl and fork after assembling		1-2MM	
5	The front fork locking and rotating torque		1--5kgf	
6	Integrate type of BB locking torque around the bowl	Steel bowl	700-850kgf. cm	600-700kgf. cm
7	Integrate type of BB locking torque around the bowl	Plastic bowl	500-700kgf. cm	500-600kgf. cm
8	Split (semi split type) BB left headset tightening torque		250-300kgf. cm	150-200kgf. cm
9	Split (semi split type) BB left headset tightening torque		500-700kgf. cm	500-600kgf. cm
10	The bottom bracket left headset fixed tightening torque		300-450kgf. cm	400kgf. cm
11	One piece type crank locking nut tightening torque		40-60kgf. cm	
12	The deflection of horizontal crankset		Less than or equal to 1MM	
13	The deflection of portrait crankset		Less than or equal to 1MM	
14	Crankset bolts tightening torque	The inner /outer tooth(M14)	400-600kgf. cm	
15	Crankset bolts tightening torque	M8	350-550kgf. cm	
16	Front derailleur screw tightening torque	M5	40-60kgf. cm	
17	Front derailleur screw tightening torque	M6	60-80kgf. cm	
18	Rear derailleur screw tightening torque	Parallel type	40-60kgf. cm	

19	Rear derailleur screw tightening torque	Vertical type	60-100kgf. cm	
20	shift cables screw tightening torque	M5	40-60kgf. cm	
21	Shift cables screw tightening torque	M6	60-80kgf. cm	
22	Shift lever screw tightening torque	M4	40-60kgf. cm	
23	Shift lever screw tightening torque	M5	60-80kgf. cm	
24	Chain link and two ends shows length difference		≤ 0. 2MM	
25	Chain tightness of single speed vehicle		5--10kgf	
26	brakes screw tightening torque	M5	60-90kgf. cm	
27	brakes sewing screw tightening torque	M5	50-70kgf. cm	
28	brakes sewing screw tightening torque	M6	60-80kgf. cm	
29	Brake clamp/clip tightening torque	M5	50-70kgf. cm	
30	Brake clamp/clip tightening torque	M9	60-80kgf. cm	
31	Brake distance	Adult	89MM	
32	Brake distance	Children's bicycle	76MM	
33	After assembled the tires, the safety line appear evenly	Tire pressure	50%-75%	
34	The wheelset off-center		Less than or equal to 1MM	
35	Spoke tension of front and rear wheelsets		90-110kgf. cm	
36	Disc brake fixed screw tightening torque	M6	60-80kgf. cm	
37	Disc brakeB1.375*2 tightening torque		250-300kgf. cm	



38	Disc brake screw tightening torque		40-60kgf. cm	
39	Cassette flywheel tightening torque		300-350kgf. cm	
40	Rear wheelset tightening torque	3/8	300-350kgf. cm	
41	Quick release type mandrels pulling-out force		13kgf. cm	
42	Handlebar embossed length		36MM	
43	After embossed, handlebar and stem can not be over		1.5MM	
44	The length of handlebar is in accordance with the specification, but within		350-700kgf. cm	
45	Stem pull rod screw tightening torque	M6	160-170kgf. cm	
46	Stem pull rod screw tightening torque	M10(hollow)	180-200kgf. cm	
47	Handlebar fixed screw tightening torque	M6	150-165kgf. cm	
48	Handlebar fixed screw tightening torque	M8	180-190kgf. cm	
49	Handlebar seat post tightening torque		60-80kgf. cm	
50	Grip and end pulling-out force		9kgf. cm	
51	Brake lever operating force		4.5kgf. cm	
52	Tripod assembly angle		5-7degree	
53	Distance between Kickstand and wheelsets		180-200MM	
54	Mid kickstand screw tightening torque		180-230kgf. cm	
55	The position of seat post safety line is at least two times of its external diameter		Or 65MM	
56	Seat post screw tightening torque		150-165kgf. cm	



57	Seat clamp quick release pulling-out force		7kgf	
58	Carrier screw tightening torque	M5	50-70kgf. cm	
59	Carrier screw screw tightening torque	M6	60-80kgf. cm	
60	Taking pay screw tightening torque	M5	50-70kgf. cm	
61	Taking pay screw tightening torque	M6	60-80kgf. cm	
62	Shock absorber to locked screw tightening torque	M6	80-100kgf. cm	
63	Lock shaft to locked screw tightening torque	M8	160-180kgf. cm	
64	Lock shaft to locked screw tightening torque	M10	180-200kgf. cm	
65	Chain center line	1SP	43.5MM	
66	Chain center line	18SP	45.5MM	
67	Chain center line	21SP	47.5MM	
68	Chain center line	24SP	49.5MM	
69	Chain center line	27SP	47.5-49.5MM	
70	Chain center line	30SP	48.5-50MM	
71	Quick release tighten thrust		18kgf	
72	Saddle horizontal thrust		23kgf	
73	Saddle horizontal thrust		68kgf	
74	Reflector group angle		90+5	
75	Reflector bracket bearing capacity after tightening		90kgf	
76	Derailleur and brake cable to end cap pulling-out force		2kgf	



More professional services

Welcome to the local SAVA exclusive bicycle shop to consult

HuiZhou SAVA Bicycle Co.,LTD reserve the right to modify and change the specification, and there is no extra notice if the above specification is changed.



Customer retain

Sale store: _____

Number: _____

Address: _____

Models: _____

Body number: _____

Color: _____

Date of purchase: _____

Customer name: _____

Phone number: _____

Address: _____

Note: Please fill in the form in block letters words, and stamp it with the official seal of the sale store before it takes effect, if you do the warranty, please take the above card and invoice to the local distribution shop for maintenance.(If the distribution shop can not repair or has been relocated, please contact the manufacturer directly)

Client Information

Store retain

Sale store: _____

Number: _____

Address: _____

Models: _____

Body number: _____

Color: _____

Date of purchase: _____

Customer name: _____

Phone number: _____

Address: _____

Note: Please fill in the form in block letters words, and stamp it with the official seal of the sale store before it takes effect, if you do the warranty, please take the above card and invoice to the local distribution shop for maintenance.(If the distribution shop can not repair or has been relocated, please contact the manufacturer directly)