Foreword: Assembling a bicycle is an important responsibility. Proper assembly not only gives the rider more enjoyment of the bicycle; it also offers an important measure of safety.

Getting Started
Open the carton from the top and remove the bicycle. Remove the straps and protective wrapping from the bicycle. Inspect the bicycle and all accessories and parts for possible shortages. It is recommended that the threads and all moving parts in the package be lubricated prior to installation.

Do not discard packing materials until assembly is complete to insure that no required parts are accidentally discarded. Assemble your bicycle following the steps that pertain to your model.

Note: Your bicycle may be equipped with different style components than the one illustrated.

Handlebars
Remove the protective cap from the stem wedge and loosen the stem bolt using the 6mm Allen key. Some models may use a 13mm hexagonal bolt. Place the handlebar stem into the head tube, observing the minimum insertion mark on the handlebar stem and ensuring that all cables are free of tangles. Check that the fork and the handlebar are facing forward, and that they are properly aligned with the front wheel. Tighten the stem bolt. Rotate the handlebar to the desired position and tighten the Stem Cap Binder Bolts securely using a 5mm Allen key.

The handlebar must be inserted so that the minimum insertion mark cannot be seen. Warning: Over-tightening the stem bolt or headset assembly may cause damage to the bicycle and/or injury to the rider.
Seat
Loosen nut on the seat clamp and add 3 or 4 drops of oil onto the threads of the bolt. Place the smaller end of the seat post into the seat clamp until it stops with the bolt to the rear of the seat post. Thread the nut on the seat clamp loosely. Insert the larger end of the seat post into the seat tube of the bicycle frame observing the minimum insertion mark on the seat post. Position the top surface of the seat parallel with the ground. The serrations on the seat clamp must mesh completely with the seat frame serration. Securely tighten the bolts on the seat post clamp. Turn the bicycle upside down and rest it on the seat and handlebars. If your bicycle is equipped with a quick release mechanism, please refer to page 29-30.

The seat pillar must be inserted so that the minimum insertion mark cannot be seen.

Pedals & Crank Set
Look for the letters “R” for right, and “L” for left, stamped on each pedal spindle. Start each pedal spindle by hand to avoid stripping the threads. Tighten with a 15mm narrow open-ended wrench. Note the right hand pedal attaches to the chainwheel side crank arm with a right-hand (clockwise) thread. The left pedal attaches to the other crank arm and has a left-hand (counter-clockwise) thread. It is very important that you check the crank set for correct adjustment and tightness before riding your bicycle. New cranks may become loose with initial use; refer to p. 82-85 for proper crank set adjustment and maintenance. Once the pedals have been attached, check that the crank arm rotates smoothly and that there is no lateral movement.

Attachment of an incorrect pedal into a crank arm will cause irreparable damage.
Front Wheel
1. Make sure the brakes are loose enough to allow the wheel to pass through the brake pads easily.
2. Place wheel into fork drop outs
3. Install retaining washers with raised lip pointed towards the fork, and insert into the small hole of the fork blade.
4. Install axle nut and tighten. Make sure the wheel is centered between the fork blades.
5. Spin the wheel to make sure that it is centered and clears the brake shoes. Tighten the brakes if necessary.
6. Turn the bicycle upright using the kickstand to support it.

It is very important to check the front wheel connection to the bicycle. Failure to properly tighten may cause the front wheel to dislodge.

Front Brake
Determine which type of brake your bike is equipped with and refer to the appropriate assembly instructions. For more information on brake adjustment and maintenance, refer to p. 30-36. A greater force is required to activate the rear brake due to longer cable length. It is advisable to mount the rear brake on the side of the stronger hand. It is important to become familiar with the use of hand brakes. When properly adjusted, hand brakes are an efficient brake system. Keep the rim and brake shoes clean and free from wax, lubricant and dirt at all times. Keep brakes properly adjusted and in good working condition at all times.

Open the brake lever and place the nipple end of the short brake cable into the lever, than close the lever. Secure the ferrule against the lever using the cable adjusting barrel.
U-Brake

1. Install the left brake arm onto pivot on the frame, assemble washer (C) and the inner hex fixing bolt (A) without fastening them tightly. Repeat the same procedure to assemble the right arm.

2. Position the brake pads and make sure they match well with the rim.

3. Turn 90 degrees clockwise to fasten the tension adjuster washer (B) with a 19mm wrench. Then fasten inner hex fixing bolt with a 5mm allen key.

4. Repeat steps 2 and 3 to fix the right arm.

5. Loosen the anchor bolt, then install the cable into the cable anchor nut and then slide the cable under the tabbed washer of anchor bolt.

6. Squeeze both brake arms together so the brake shoes hit the rim pull all slack out of the brake cable, and lighten the anchor bolt.

7. Adjust the brake shoes using a 10mm wrench so that they are parallel with the rim and are positioned 1-2mm away from the rim. Several adjustments may be necessary to achieve the correct brake position.

Warning: Cut off any unnecessary cable, attach an end cap, and hook it.

Note: Both arms are equipped with return spring. To obtain a normal return spring tension, adjust the tension adjuster washer (B) by rotating the washer (B) to the right or to the left.
Side Pull Brake

Loosen the cable anchor nut and thread the brake cable through it. Tighten the nut by hand until it holds the cable in place. Squeeze the brake arms together against the rim of the wheel. Loosen the nuts on the brake shoes and turn until they match the angle of the rim. Tighten the nuts securely. Pull down on the end of the brake cable with pliers, hold taut and securely tighten the cable anchor nut. Spin the wheel, the brake shoes should not contact the rim at any point and should be an equal distance from the rim on both sides. Make sure all nuts and bolts are securely tightened. Test the brake levers 20-25 times to take care of any initial cable stretch. Be sure to tightly secure the brake fixing nut behind the fork.

When assembling or adjusting the brakes, make sure the cable anchor is tight. Failure to securely tighten the nut could result in brake failure and personal injury.

Cantilever Brakes – Link Wire

If fitted with cantilever type brakes, insert the brakes cable into the link wire lead, and notch the cable end into the slot of the left brake arm. Loosen the anchor bolt on the right brake arm and slide the brake cable under the tabbed washer. Squeeze both brake arms together so the brake shoes hit the rim, pull all slack out the brake cable, and tighten the anchor bolt. With the cable fitted, the straddle holder should sit 10-20mm above the reflector bracket. Adjust the brake shoes using a 10mm wrench so that they are parallel with the rim and are positioned 1-2mm away from the rim. Several adjustments may be necessary to achieve the correct brake position.
3. Temporarily tighten the cable so that the link wire is at the position in the illustration.

4. Turn the spring tension adjustment screw so that the link wire comes to a position directly below the cable casing holder.

5. Secure one of the shoes at a time. The adjustment of the shoe clearance is not necessary at this time. Shoe fixing nut tightening torque: 7.84 - 8.82 Nm (70 - 78 in. lbs.)

6. If balance adjustment is necessary, adjust with the spring tension adjustment screw.

Cut off any unnecessary cable, attach an end cap, and hook it onto the notched part of the nut which secures the shoe.
V - Brake

1. If fitted with V-Brakes, insert the brake body into the center spring hole in the frame mounting boss, and then secure the brake body to the frame with the link fixing bolt.

2. While holding the shoe against the rim, adjust the amount of shoe protrusion by interchanging the position of the B washers (i.e. 6 mm and 3 mm) so that dimension A is kept at 39 mm or more.
3. While holding the shoe against the rim, tighten the shoe fixing nut.

![Diagram showing shoe fixing nut and 5 mm Allen key.]

4. Pass the inner cable through the inner cable lead. Set the cable with a clearance of 1mm between each brake pad and the rim, tighten the cable fixing bolt.

![Diagram showing inner cable passing through inner cable lead and 5 mm Allen key.]

5. Adjust the balance with the spring tension adjustment screws.

![Diagram showing spring tension adjustment screws and 1 mm adjustment.]

6. Depress the brake lever about 10 times as far as the grip to check that everything is operating correctly and that the shoe clearance is correct before using the brakes.
Cantilever Brakes – Straddle Cable

The length of the straddle cable, the height of the straddle hanger and the brake pad-to-caliper arm position all have an effect on braking power. Generally, the straddle cable bridge is set low and close to the tire for maximum braking force. The straddle cable should be high enough, however, to adequately clear the tire (and any debris that may stick to the tire) or to fit over the front reflector hanger. In the event of brake cable failure, the front reflector hanger would prevent the straddle cable from catching in the tire and locking up the front wheel. The straddle cable length (when adjustable) is set to transfer as much force to the brake pads as possible. For the most efficient transfer of force, the straddle cable and the line between the cantilever pivot and the cable anchor should form a right angle (90 degrees). If the force is not at a right angle, part of the force gets wasted in pulling on the brake post, which has no effect on braking.
**Check your Brakes**
Press each brake lever to make sure that there is no binding and that brake pads press hard enough on the rims to stop the bike. The brake pads should be adjusted so they are 1mm to 2mm away from the rim when the brakes are not applied. Brake pads should be centered on the rim and the rear portion of each brake pad should be about 0.5 – 1.0mm farther from the rim than the front portion of the brake pad.

Do not ride the bicycle until the brakes are functioning properly. To test, apply the brakes while trying to push the bike forward to make sure they will stop the bicycle.

**Training Wheels**
Attach the legs to the bicycle frame:

Put the alignment insert (1), a leg (2), and an axle nut (3) on each end of the rear wheel axles (4)

Make sure the tab of the alignment insert (5), is to the rear of the axle and in the slot (6) of the frame.

Make sure both training wheels are the same distance from the ground

Tighten the axle nuts securely.

**WARNING:** Before each ride, make sure both nuts are tight. Also make sure both training wheels are the same distance from the ground.

As your child’s ability and balance improve, you may raise or remove the training wheels.

To move the training wheels, loosen the nut, slide the leg to the correct position, and retighten the nut.

To remove the training wheels, remove the nut, leg, and alignment insert.
Rotors
Some freestyle BMX bicycles come equipped with a detangler system that will allow the handlebar to spin 360-degrees without binding the cables. It is very important that this system is adjusted correctly. Installation should only be done by a qualified bicycle mechanic with the correct tools.

Upper Cable
1. First connect the barrel end of the upper cable to the rear brake lever. Make sure the long cable casing is on top of the short cable casing; otherwise, the upper cable will have a twist in it.
2. Route the upper cable through the handlebars (below the crossbar) with the short cable casing on the same side as the rear brake lever.
3. Connect the upper cable to the upper plate by passing the football ends of the upper cable through the threaded holes in the upper plate and connecting them to the bearing.
4. Screw the adjusting barrels into the upper plate. Don’t tighten the locknut at this time.

Lower Cable
1. Slide the cable casing through the cable guide on the frame.
2. Connect the lower cable to the lower plate by passing the football ends of the lower cable through the threaded holes in the lower plate and connecting them to the bearing.
3. Screw the adjusting barrels into the lower plate. Don’t tighten the locknut at this time.
4. Connect the lower cable to the rear brake. Don’t adjust the rear brake at this time. Check to make sure all 11 cable casing ends on the upper and lower cables are seated correctly, and that the spring tension of the rear brake is pulling the bearing down.

Adjustment
1. Screw the cable adjusters on the rear brake lever and the upper cable splitter all the way in.
2. Screw the adjusting barrels in the upper plate in (or out) to set the bearing for maximum travel. The bearing should be as far down as it can go without resting on the lower plate or the adjusting barrels screwed into the lower plate.
3. Use the adjusting barrels that are screwed into the upper plate to make the bearing parallel to the upper plate. Use a 10mm wrench to tighten the locknut on the left adjusting barrel of the upper cable. Leave the right adjusting barrel loose.
4. Screw the lower cable-adjusting barrel into (or out of) the lower plate until they are as close to the bearing as they can get without touching it.
5. Screw the cable adjuster on the upper cable splitter out until all slack is removed from the upper cable. Then screw the cable adjuster out one more turn to raise the bearing an additional 1mm away from the lower cable adjusting barrels. CAUTION: Don’t screw the cable adjuster on the upper cable splitter out more than 8mm. Use the cable adjuster on the rear brake lever if more adjustment is needed.
6. Check for bearing flop by placing the handlebars in the normal riding position; then quickly rotate the handlebars back and forth. Perform the following steps to eliminate bearing flop. NOTE: The bearing should never be allowed to rest on the lower plate or lower cable adjusting barrels.
   a. Screw the lower cable adjusting barrels out of (or into) the lower plate until all of the bearing flop is eliminated.
   b. Tighten the locknut of the right adjusting barrel on the lower cable.
   c. Rotate the handlebars 180 degrees and recheck for bearing flop. If there is any bearing flop, use the “loose” adjusting barrels on the upper and lower cable to remove it.
   d. Repeat steps (6a) and (6c) until the handlebars can be rotated 360 degrees without any bearing flop.
7. Finish adjusting the rear brakes.
Failure to adjust correctly may result in loss of braking power and personal injury.
Final Check
Install any additional parts that are supplied with your bike.

**NOTE:** Your bicycle may be equipped with different style components than the ones illustrated.

**Reflectors:** Attach the white reflector to the front bracket and the red reflector to the rear bracket using a 8mm wrench or a Phillips head screwdriver. Attach the brackets to the bicycle using the hardware provided. For some models, the front reflector bracket will be mounted on the front brake assembly bolt that fits through the fork. It is important to make sure all connections are tightened securely and that the reflectors are properly angled.

**Pads:** If your bike is supplied with pads, wrap the foam inner cushion around the appropriate bar. Place the outer cover over the inner cushion and press the velcro together securely. Turn the pad so the velcro faces the ground.

**Chainguards:** If not already attached, attach the chainguard to the bicycle frame using the clamps provided. Secure in place making sure the guard does not bind or get caught on the chain.

**Tire Pressure:** Check tire pressure, inflate to the range recommended on the tire sidewalls.

Before riding, ensure all nuts, bolts and fittings on the bicycle have been correctly tightened.