

Cores of

THE COMPLETE BIKE OWNER'S MANUAL

T.IFER

HELMETS SAVE LIVES!



Correct Fitting - Make sure your helmet covers your forehead.

Always wear a properly fitted helmet that complies with CPSC or CE safety standards when you ride your bicycle.



Incorrect Fitting - Forehead is exposed and vulnerable to serious injury

A WARNING

As with all mechanical components, the bicycle is subjected to wear and high stresses. Different materials and components may react to wear or fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail possibly causing injuries to the rider. Any form of crack, scratch or change of colouring in highly stressed areas indicate that the life of the component has been reached and it should be replaced. Do not ride in an abusive manner.

A WARNING

In this manual, the CAUTION sign shows a hazardous situation which, if not avoided, could cause minor or moderate injury

A WARNING

In this manual, the WARNING sign shows a hazardous situation which, if not avoided, could cause death or serious injury

A WARNING

Great care should be taken when locking the quick release levers on the bicycle. If you do not fully understand how to operate the quick release levers, sak a bicycle dealer for assistance, or call Lucifer Bikes Customer Support Team at +1800-890-3035

DO NOT RIDE YOUR BICYCLE WITHOUT ALL QUICK RELEASES SECURELY LOCKED.

Owner's Bicycle Identification Record

NOTE: This information is only available on the bicycle itself. It is not available from Lucifer.

Each Lucifer bicycle has a Serial Number stamped into the frame. The Serial Number (1) can be found on the bottom of the crank housing as shown.

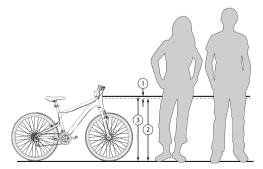
Write this number below to keep it for future reference.



If the bicycle is stolen, give this number and a description of the bicycle to the police. This will help them find the bicycle.

Model / Frame Number: Purchase Date: Model Name:

Fitting the Rider to the Bicycle



To determine the correct size of bicycle for the rider:

· Straddle the assembled bicycle with feet shoulder width apart and flat on the ground.

- . There must be at least 1 inch (2.5 cm) of clearance (1) between the highest part
- of the top tube (2) and the crotch of the rider with tires properly inflated.
- . The minimum leg-length for the rider is the highest part of the top tube plus one inch

Parts Assembly List

0 0.	Description Handlebar Stem Handlebar Front Wheel Assembly Fork Wheel Retainer (x2) Axle Nut (x4) Front Reflector Seat Post	No. 19 20 21 21 23 23 23 24 25 25 25 26 27	Description Grips (x2) Grips (x2) Crank & Spindle Set Crank Bearings Kitckstand Chain Chain Chain Chain Chain Bard Set Bearing Seat Post Hardware Brake Shoe
	Rear Reflector	28	Front Brake
	Guard Screws (x2)	29	Rear Brake
	Derailleur Guard	30	Front Derailleur
	Frame	31	Rear Derailleur
	Quick Release Lever & Nut	32	Brake Lever - Left (Front Wheel)
	Pedal (Left & Right Set)	33	Brake Lever - Right (Rear Wheel)
	Tire (x2)	34	Shift Mechanism, Front
	Tube (x2)	35	Shift Mechanism, Rear
	Rear Wheel Assembly	36	Bell ((f equipped)

Assembly Introduction

This Owner's Manual is made for several different bicycles:

- Some illustrations may vary slightly from the actual product.
- · Follow instructions completely.
- If the bicycle has any parts that are not described in this manual, look for separate "Special Instructions" that are supplied with the bicycle.
- Models may have different accessory items such as bags, baskets, reflectors, cup holders, racks, etc.
- All features, components and accessories are not included on all models.
- Use the Index page to locate specific sections of this manual.
- Please read through this entire manual before beginning assembly or maintenance.
- If you are not confident with assembling this unit, refer to your local bike shop.

WARNING: Keep small parts away from children during assembly.

NOTE: All of the directions (right, left, front, rear, etc.) in this manual are as seen by the rider while seated on the bicycle.

Do not dispose of the carton and packaging until you complete the assembly of the bicycle. This can prevent accidentally discarding parts of the bicycle.

Handlebar and Stem Installation

WARNING: To prevent steering system damage and possible loss of control, completely seat Stem (1) onto Fork Tube (E). Threadless Style Stem:

Note: This procedure applies to both the two-bolt Stem and four-bolt Stem (figs 01b and 01c):

1. Insert the Stem (1) onto the Fork Tube (E).

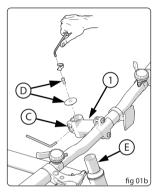
2. Point the Stem (1) towards the front of the bike and in line with the fork.

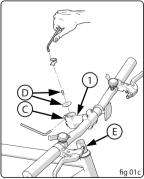
3. Tighten the stem bolts (C) securely.

 Place Cap into stem and tighten screw securely (D).

WARNING: Do not over tighten the stem bolts (C). Over tightening the stem bolts can damage the steering system and cause loss of control.

WARNING: The Front Brake (28) must be positioned in FRONT of the Fork (4) (fig 01a)





Setting Up the Handlebar

Note: This procedure is for one, two and

four bolt Handlebar Stems.

1. If necessary, loosen the Handlebar

Clamp Screw(s) (A) and rotate Handlebar (2) into a comfortable riding position.

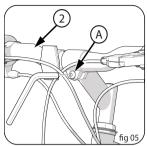
2. Tighten Handlebar Clamp Screw(s) (A)

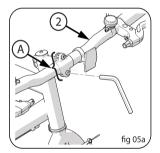
securely.

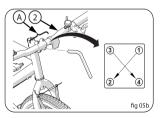
NOTE: Do not over tighten. Torque to 14-17 ft-lbs.

WARNING: If the handlebar clamp

in not tight enough, the handlebar can slip in the stem. This can cause damage to the handlebar or stem, and can cause loss of control.







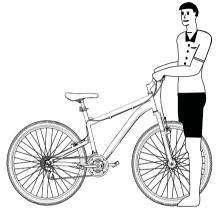
Testing Stem and Handlebar Tightness

To test the tightness of the stem:

Straddle the front wheel between your legs.

- Try to turn the front wheel by turning the handlebar.
- If the handlebar and stem turn without turning the front wheel, realign the stem
- with the wheel and tighten the stem bolt(s) tighter than before (about 1/2 revolution only at a time).

• Do this test again, until the handlebar and stem do not turn without turning the front wheel.



To test the tightness of the handlebar clamp:

 Hold the bicycle stationary and try to move the ends of the handlebar up and down.

CAUTION: Do not exceed 100 lbs downward force.

- If the handlebar moves, loosen the bolt(s) of the handlebar clamp.
- Put the handlebar in the correct position and tighten the bolt(s) of the handlebar clamp tighter than before.
- . If the handlebar clamp has more than one bolt, tighten the bolts equally.
- Do this test again, until the handlebar does not move in the handlebar clamp.

Pedal Installation

CAUTION: There is a right pedal marked "R" and a left pedal marked "L".

- The pedal marked "R" has right-hand threads. Tighten it in a clockwise direction.
- The pedal marked "L" has left-hand threads. Tighten it in a counterclockwise

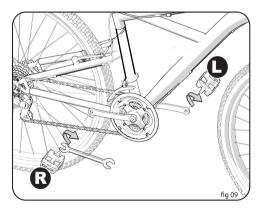
direction (anti-clockwise).

 \bullet Turn the right pedal marked "R" into the right side of the crank arm, and the left pedal marked "L" into the left side of the crank arm.

Tighten the pedals (fi g 09):

- · Make sure the threads of each pedal are fully into the crank arm.
- Make sure pedals are fully tightened with wrench.

NOTE: The recommended torque (tightness) for each pedal is 30 ft.-lbs.



Note: A Pedal Wrench is preferred for attaching Pedals. An open-end wrench can also be used as shown.

WARNING: Ensure pedals are secure in crank arms so they will not loosen. Periodically check tightness.

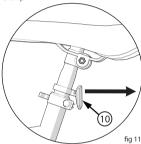
Reflector Brackets Installation

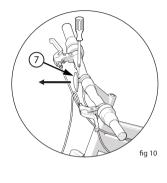
 Position FRONT Reflector (7) so it points straight forward (fi g 10).
 Tighten Clamp Screw.

NOTE: Do not over-tighten. This will damage the Clamp.

 Position REAR Reflector (10) so it points straight backward (fig 11).
 Tighten Clamp Screw.

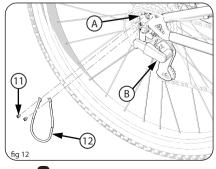
NOTE: Do not over-tighten. This will damage the Clamp.





Installing Derailleur Guard (on some models)

- 1. Remove Screws (11) from Frame Tabs (A).
- 2. Install Guard (12) using two Screws (11).
- 3. Make sure the Guard does not contact the Derailleur (B).
- 4. Tighten Screws (11) securely



Brake System - continued

Step 3. Stretching the cable (fig 13):

- 1. Hold both Brake Shoes against the rim.
- 2. Loosen the cable clamp Screw (C).
- 3. Pull the Cable (D) tight and tighten the Screw.

WARNING: Do not over tighten the cable clamp Screw. Over tightening the cable clamp Screw may cut the cable and cause injury to the rider or to others.

- 4. Squeeze each brake lever firmly 20 times.
- 5. Hold both Brake Shoes against the rim and loosen the cable clamp Screw.
- 6. Pull the Cable tight and tighten the cable clamp Screw.

Final Brake Adjustment Before Riding

The following sections describe final brake system adjustments required before riding. Determine which style you have and follow the instructions.

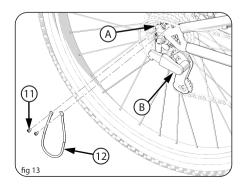
Check tightness of the cantilever mounting Bolt (A):

Make sure each cantilever mounting Bolt is tightened securely.

Center brake shoes on rim:

1. Turn the Adjustment Screw (B) on the cantilever arm to move the arm in or out so each Brake Shoe (C) is the same distance from the rim.

- 2. Squeeze the brake lever two times.
- 3. Do this step again, until both brake shoes are the same distance from the rim.

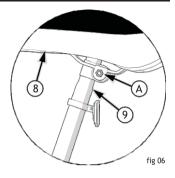


Seat Installation

Attach Seat to Seat Post:

(pre-assembled on some models)

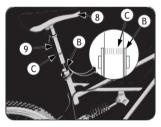
- Loosen nuts on seat clamp (A) and rotate Seat (8) into riding position.
- Put the seat post (9) fully through the seat clamp (A).
- Tighten the Seat Clamp so the seat stays on the seat post.
- If the Seat Clamp has a nut on each side, tighten both nuts equally.



CAUTION: If you accidentally drop the seat post into the seat tube, it may be difficult to remove it.

 Point the Seat (8) forward and put the Seat Post (9) into the Seat Tube (B) (figs 07, 08).

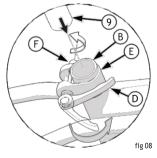
WARNING: To prevent the seat coming loose and possible loss of control, the "MIN-IN" (minimum insertion) mark (C) on the seat post must be below the top of the Seat Tube.



Tighten the quick release lever:

 Move the Quick Release Lever (D) to the "open" position so the word "open" is pointing away from the Seat Post Clamp (E).

NOTE: The words "open" and "close" are on opposite sides of the quick release lever.



Assembly

Seat Installation - continued

CAUTION: Operate the Quick Release Lever by hand only. Do not use a hammer or any other tool to tighten the quick release lever.

You must use strong force to move the quick release lever to the "close" position. If you can easily move the lever to the "close" position, the clamping force is too light.

WARNING: If the clamping force of the Quick Release Lever is too light, the seat post can loosen while riding. This can cause injury to the rider or to others.

Tighten the quick release lever:

- Open and close the Quick Release Lever with one hand while you turn the Adjusting Nut (F) with the other hand (fig 08).
- Tighten or loosen the Adjusting Nut (F) by hand, so that you first feel resistance to the quick release lever when it perpendicular to the bicycle frame.
- Push the Quick Release Lever to the "close" position (fig 08).
- When in the "close" position, make sure the Quick Release Lever lays against the Seat Post Clamp.
- The tightening torque of the Quick Release Lever should be tight enough so that the seat does not move during normal operation.

Testing Seat Clamp and Post Clamp Tightness

To test the tightness of the seat clamp and the post clamp:

WARNING: Every time the quick release mechanism is loosened, make sure the red reflector is correctly positioned (see page 16).

- Try to turn the seat side-to-side and to move the front of the seat up and down.
- If the seat moves in the Seat Clamp (A) (fig 06):
 - · Loosen the Seat Clamp.
 - Put the seat in the correct position and tighten the Seat Clamp tighter than before.
 - Do this test again, until the seat does not move in the Seat Clamp.
- If the Seat Post (9) moves in the Seat Tube (B):
 - Move the Quick Release Lever to the "open" position.
 - Put the seat in the correct position and tighten the Quick Release Lever tighter than before.
 - If necessary, loosen Quick Release Lever, tighten Adjusting Nut and re-tighten Quick Release Lever.
 - Do this test again, until the seat post does not move in the seat tube.

Pedal Installation

CAUTION: There is a right pedal marked "R" and a left pedal marked "L".

- The pedal marked "R" has right-hand threads. Tighten it in a clockwise direction.
- The pedal marked "L" has left-hand threads. Tighten it in a counterclockwise direction (anti-clockwise).
- Turn the right pedal marked "R" into the right side of the crank arm, and the left pedal marked "L" into the left side of the crank arm.

Tighten the pedals (fig 09):

- Make sure the threads of each pedal are fully into the crank arm.
- · Make sure pedals are fully tightened with wrench.

NOTE: The recommended torque (tightness) for each pedal is 30 ft.-lbs.



Note: A Pedal Wrench is preferred for attaching Pedals. An open-end wrench can also be used as shown.

WARNING: Ensure pedals are secure in crank arms so they will not loosen. Periodically check tightness.

Final Brake Adjustment - continued

WARNING: Do not over tighten the cable clamp. Over tightening the cable clamp may cut the cable and cause injury to the rider or to others.

8. Repeat these steps until the brake shoes are 1/16 inch from the rim and the Brake Lever (G) does not go all the way to the grip when squeezed .

WARNING: Do not move the brake shoes away from a wheel rim that is not true (straight). This can cause the caliper brake to be less effective and unsafe. To allow safe adjustment of the caliper brake, have a bicycle service shop true the wheel. **Test the tightness of the cable clamp**

1. Squeeze each Brake Levers (G) with firm pressure.

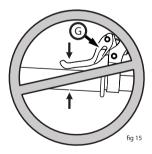
2. Make sure the cable does not move in the Cable Clamp (E).

3. If the cable moves in the cable clamp, adjust the brakes again but tighten the cable clamp tighter than before.

4. Do this test again, until the cable does not move in the cable clamp.

Test the travel of each brake lever:

 Squeeze each Brake Lever (G) with strong pressure
 If the brake lever touches the grip, adjust the brakes again.



WARNING: After you adjust the brakes again, if either brake lever touches the grip or does not work well, have a bicycle service shop repair or adjust the brakes.

Maintenance:

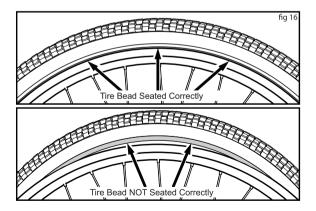
- Frequently check the tire inflation pressure because all tires lose air slowly over time. For extended storage, keep the weight of the bicycle off the tires.
- Do not use unregulated air hoses to inflate the tire/tubes. An unregulated hose
 can suddenly over inflate bicycle tires and cause them to burst.
- Replace worn tires.

WARNING: Do not ride or sit on the bicycle if a tire is under inflated. This can damage the tire, inner tube and rim.

Inflating the Tires:

- Use a hand or a foot pump to infl ate the tires.
- · Service station meter-regulated air hoses are also acceptable.
- The maximum inflation pressure is shown on the tire sidewall.
- If two inflation pressures are on the tire sidewall, use the higher pressure for onroad riding and the lower pressure for off-road riding.

The lower pressure will provide better tire traction and a more comfortable ride.
 Before adding air to any tire, make sure the edge of the tire (the bead) is the same distance from the rim, all around the rim, on both sides of the tire. If the tire does not appear to be seated correctly, release air from the inner tube until you can push the bead of the tire into the rim where necessary. Add air slowly and stop frequently to check the tire seating and the pressure, until you reach the correct inflation pressure.
 See fig 16.



Repair and Service

WARNING:

Inspect the bicycle frequently. Failure to inspect the bicycle and to make repairs
or adjustments, as necessary, can result in injury to the rider or to others. Make
sure all parts are correctly assembled and adjusted as written in this manual and
any "Special Instructions".

· Immediately replace any damaged, missing, or badly worn parts.

 Make sure all fasteners are correctly tightened as written in this manual and any "Special Instructions". Parts that are not tight enough can be lost or operate poorly. Over tightened parts can be damaged. Make sure any replacement fasteners are the correct size and type.

NOTE: Have a bicycle service shop make any repairs or adjustments for which you do not have the correct tools or if the instructions in this manual or any "Special Instructions" are not sufficient for you

Lubrication

WARNING:

- Do not over lubricate. If oil gets on the wheel rims or the brake shoes, it will reduce brake
 performance and a longer distance to stop the bicycle will be necessary. Injury to the rider
 or to others can occur.
- The chain can throw excess oil onto the wheel rim. Wipe excess oil off the chain.
- Keep all oil off the surfaces of the pedals where your feet rest.
- Using soap and hot water, wash all oil off the wheel rims, the brake shoes, the pedals, and the tires.
- · Rinse with clean water and dry completely before you ride the bicycle.
- Using a light machine oil (20W), lubricate the bicycle according to the following table:

Repair and Service (Recommended)

What	When	How
Pedals	Every six months	Put four drops of oil where the axles go into the pedals.
Chain	Every six months	Put one drop of oil on each roller of the chain. Wipe all excess oil off the chain.
Shift Levers	Never	Do not lubricate the shift levers.
Derailleurs	Every six months	Put one drop of oil on each pivot point of the derailleurs.
Brake Levers	Every six months	Put one drop of oil on the pivot point of each brake lever.
Cantilever Brakes	Every six months	Put one drop of oil on the pivot point of each cantilever brake.
Brake and cable	Every six months	Put four drops of oil into both ends of each cable. Allow oil to soak back along the cable wire.
Rear Sprocket Cluster	Every six months	Lay the bicycle on its left side. Slowly turn the rear wheel clockwise. Put four drops of oil in the crank between the rear sprockets (which are stationary) and the freewheel body (which is turning clockwise).
Shock Fork	Every six months	Lift up the rubber fork boot and dab a small amount of grease on the fork leg just above the plastic bushing.
Spring Shock	Never	Do not lubricate the spring shock.

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