



REAR WHEEL DRIVE BIKE OWNER'S MANUAL

INTRODUCTION

We take pride in designing and building the highest quality fitness equipment on the market. This means that you will enjoy years of low maintenance and minimal repair from every one of our products. Only the highest quality products have the Keiser name on them.

This manual will assist you with the assembly, maintenance and safe operation of the Keiser Rear Wheel Drive Bike. We strive to continuously improve our products, therefore, parts and machine designs are subject to change without notice. Please call our Service Department at (800) 888-7009 for the latest product information.

CAUTIONS, WARNINGS AND NOTES

Please read all instructions contained in this manual prior to assembling and using this product. Failure to follow these instructions will invalidate the product warranty and could lead to serious injury.

We use the term **Caution!** to document things that could cause bodily injury to persons on or around the equipment if the information contained herein is ignored.

The term **Warning!** is used to ensure the proper installation of components for maximum machine life and user safety.

Note! is used to document things that we recommend and things to be aware of before performing a particular instruction.

WARRANTY

The Keiser Rear Wheel Drive Bike is warranted to the original purchaser to be free from defects in materials and workmanship for the following period(s) starting from the date of receipt as evidenced by appropriate shipping documents:

6 months	All components (except where otherwise noted)
3 months	Friction Belt
1 year	Bottom Bracket Assembly
10 years	Frame (Failure due to corrosion is not covered unless it is the result of manufacturing defect.)

Not covered: Loss caused by accident, abuse, improper use, neglect, improper maintenance, improper assembly by the purchaser or purchaser's agent, and/or failure to follow the instructions provided in this manual.

Terms:

The foregoing warranties are in lieu of and exclude all other warranties not expressly set forth herein, whether express or implied by operation of law or otherwise, including but not limited to any implied warranties of merchantability or fitness. Keiser Corporation shall in no event be liable for incidental or consequential losses, damages or expenses in connection with exercise products. Keiser Corporation's liability hereunder is expressly limited to the replacement of parts not complying with this warranty or, at Keiser Corporation's election, to the repayment of an amount equal to the purchase price of the parts in question. Keiser Corporation is not responsible for labor charges incurred in replacement of defective

parts. The customer is responsible for all transportation costs on warranted items to and from the point of manufacture. Replacement products are warranted for the balance of the original warranty period.

Users, agents, or anyone directing the use of this equipment shall determine the suitability of the product for its intended use, and said parties are specifically put on notice that they shall assume all risk and liability in connection herewith.

Process:

Call the Keiser Service Department at (800) 888-7009, Monday through Friday between 7:00 a.m. and 5:00 p.m. PST. Provide the following information:

Customer number:

Serial number(s):

As parts are ordered, the service technician checks the original delivery date to the customer, to determine whether the part is a warranty replacement or not. The parts are sent to whoever is responsible for the repair. Keiser Corporation will not be responsible for improper repairs made to Keiser bikes. Keiser Corporation will not be responsible for non-authorized replacement parts used in repairs. Products or parts produced by another manufacturer and distributed by Keiser Corporation will be covered by the respective manufacturer's warranty.

Warning! Failure to follow the instructions as provided in this manual or any other instructions pertaining to the assembly and/or operation of this equipment will result in voiding the warranty and could lead to serious injury.

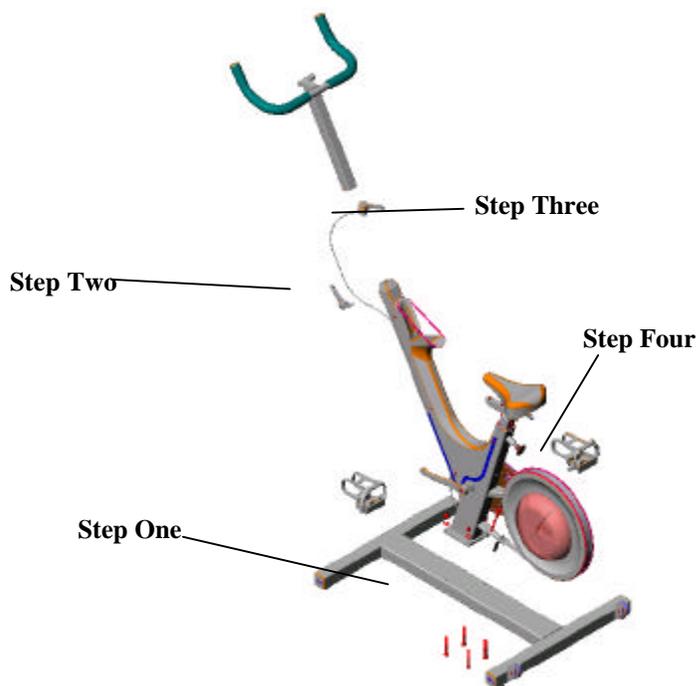
GETTING STARTED

Tools required: paste or spray wax and clean cloth.

Carefully remove the following items from the shipping carton: handle bar assembly, hubcap, base frame, main frame assembly and pedals. Locate and set aside the small parts bag containing: four screws, four acorn nuts, eight washers, handle stud assembly, Loctite 242®, one paper clip and two plastic pins.

Note! Prior to assembly, the base and main frames must be waxed to protect the powder-coated paint on the frames. Apply wax in accordance with manufacturer's instructions. We recommend a paste or spray on carnuba wax, such as Turtle Wax®.

ASSEMBLY INSTRUCTIONS



Tools required: Torque wrench, 5/8-inch socket, 5/8-inch open-end wrench, #2 Phillips screwdriver, and 15mm crowfoot.

Step One: Mount the Main Frame onto the Base Frame

Parts required: four (7/16) screws, four (7/16) acorn nuts, eight (7/16) washers and hub cap.

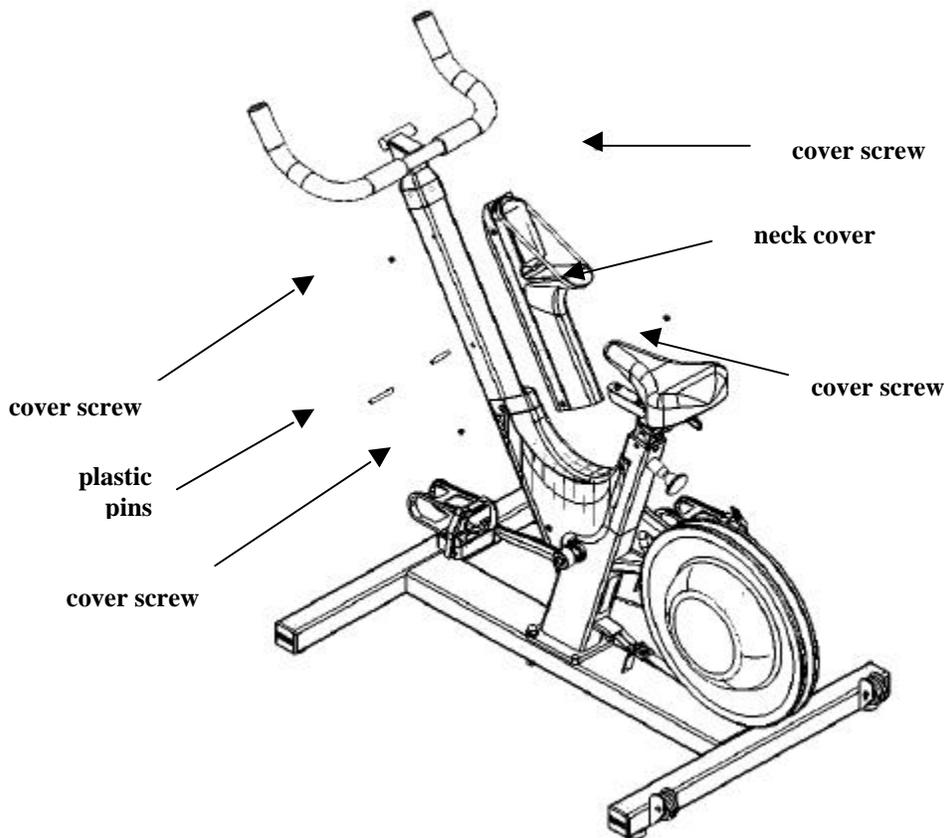
Note Stack cardboard between screws and floor to protect the floor and to prevent the screws from backing out during the assembly process.

Place four of the washers on the screws and insert the screws through the holes from the bottom of the base frame. Peel off the top layer of the adhesive strip on the base frame. Place the main frame assembly at the rear of the base frame (the side with the wheels). Use the flywheel to roll the main frame onto the base frame. The flywheel should be located between the wheels located at the rear of the base frame. Use the screws to guide the main frame into the correct position on the adhesive strip.

Install the remaining washers and the acorn nuts finger tight on the screws. Hold the screw head in place with the 5/8-inch open-end wrench. Tighten the acorn nuts to 35 ft-lbs. using a 5/8-inch socket on the torque wrench.

Attach the hubcap to the left side of the flywheel by rotating the hubcap in a clockwise direction until snug. Be careful not to cross thread or over-tighten.

Step Two: Install Handlebar and Handle Stud Assembly



Parts required: paper clip, two plastic pins (one longer than the other) and handle stud assembly.

Remove the plastic cover on the upper neck portion of the main frame assembly. Slide in the handlebar with the upright portion of the handlebar pointing away from the seat (see illustration). Straighten the paper clip and use it to support the plastic pins as you insert them into the frame by sliding the straight part of the paper clip into the hole at the end of the plastic pin. ***Warning! If the wrong length pin is used, the handlebar will not move.*** Line up the holes in the handlebar with the holes in the neck of the main frame. Take the shorter of the two plastic pins and insert the paper clip into the hole on the side of the pin. Use the paperclip to push the pin through the lined-up holes all the way into the handlebar so that it is centered in the mainframe. The pin should now be through both holes in the handlebar post as it rests in the neck of the mainframe. Gently slide handlebar up until paperclip makes contact with neck of the mainframe, then remove the paperclip. Screw the handle stud assembly into the threaded insert located in the front of the neck on the main frame. Raise the handlebar to its fully extended position and tighten the handlebar in place by screwing in the handle stud assembly until it firmly holds the handlebar in place. Once again, use the paperclip to insert the longer of the two pins into the holes in the neck of the main frame. Center the pin in the main frame, hold the pin in place with your fingers and remove the paper clip. Carefully snap the plastic cover back into place on the main frame being careful not to move the pin, then re-insert the screws. ***Warning! Do not over-tighten the screws, as this may cause the cover to crack.***

Step Three: Attach Resistance Shifter

Remove the screw taped to the resistance shifter. Raise the resistance shifter to the top of the handlebar. Slide the shifter onto the shaft located at the front of the handlebar assembly making sure the "H" or high RPM side of shifter is closest to the seat. Use a #2 Phillips screwdriver to fasten the shifter to the shaft. Do not over-tighten.

Step Four: Attach Pedals

Warning! Do not use Loctite 242® on any of the plastic parts on the bike. Loctite 242® is not normally recommended for use on plastics, particularly thermoplastic materials where stress cracking of the plastic could result.

Caution! Never leave the pedals loose on the crank arms as the pedals may pull out and cause serious bodily injury and damage to the bike.

Most pedals bear a stamp at the end of the threaded shaft to indicate the side on which they will be installed. Apply full resistance to the flywheel by moving the shifter to the maximum counter-clockwise position. When threading the pedals be careful not to cross-thread them on the crank arms. Apply two drops of Loctite 242® to the threads of the pedals (as illustrated below). Thread the right-side pedal (marked "R") into the right crank arm rotating clockwise until snug. Tighten the right pedal to 35 ft-lbs. using the 15mm crowfoot on the torque wrench (as illustrated below). Thread the left-side pedal (marked "L") into the left crank arm rotating counter-clockwise until snug. Torque the pedal to 35 ft-lbs. with the 15mm crowfoot on the torque wrench. ***Warning!*** Failing to install the pedals with Loctite 242®, crossing the threads, and/or failing to properly torque the pedals will void the warranty and could cause serious injury.



Apply Loctite 242®



Torque to 35 ft-lbs.

MANEUVERING THE BIKE

Release the resistance on the flywheel by moving the shifter to the maximum clockwise position. Stand behind the bike and grasp the nose of the seat, pulling back until the bike is resting on the flywheel. Maneuver the bike much like a wheelbarrow, using the handlebar to steer. The bike is stable when resting on three points- the two small wheels and flywheel, and can be left in this position (as illustrated).



USER ADJUSTMENTS

Seat Height Adjustment

Grasp seat, pull out the seat adjustment knob and set to preferred height using the stenciled letters on the seat post as a guide. Release knob and gently move seat up and down until the plunger locks into the seat post tube. Seat height should be positioned according to rider's hip while rider is standing next to bike.

Front to Rear Seat Adjustment

Grasp seat, pull out quick release lever, located under the right side of the seat, so that the lever is perpendicular to the seat, slide the seat to the desired position and return the quick release lever to the original position to secure the seat in place. ***Note! The quick release lever should be horizontal and facing back as shown in illustration at right. If the lever faces forward or out too much, it could interfere with the rider.***



Handlebar Adjustment

Turn the handle stud assembly counter-clockwise to loosen the handlebar. Adjust the handlebar to the desired position using the stenciled numbers on the tube as a guide. Re-tighten the handle stud assembly. To reposition the handle stud assembly so that it does not interfere with the use of the bike, depress the button on the shaft (indicated by the arrow in the illustration at right). Pull the handle back and place in the desired position.



Resistance Adjustment

The friction belt supplies the desired resistance and is adjusted by turning the shift lever located on the handlebar. Turn the lever clockwise to decrease resistance and counter-clockwise to increase resistance. To use the resistance shifter as an emergency brake, push the lever to the maximum counter-clockwise position.

Note! After every workout, wipe down the entire bike using a clean, dry cloth. Visually inspect the chain cover for any cracks or breaks and verify that it is securely fastened to the bike. Check pedals, crank arms and other components to verify that they are securely fastened in the correct position.

ROUTINE MONTHLY MAINTENANCE

Lubricate the Chain: Proper lubrication will extend the life of the chain.

Tools required: Torque wrench, 9/16-inch socket and "BEL RAY® Chain Lube with Molyphos Additive."

Caution! Extreme care must be taken when working around an uncovered chain. Keep fingers, clothing, hair, etc., away from moving chain. Failure to follow these instructions could result in serious injury, including the loss of a finger.

Release the resistance on the flywheel by moving the shifter to the maximum clockwise position. Remove the chain cover using a 9/16-inch socket to remove the rear screw on the chain cover. Take off the chain cover by pulling out on the tabs at the bottom of the chain cover. Maneuver the chain cover around the crank arm and pedal.

Place a rag below the chain to catch any excess lubricant and keep the floor clean. Affix the extension tube to the nozzle of the chain lube. Position yourself at the rear of the bike with your left hand on the flywheel and your right hand holding chain lube ready to apply to chain. Slowly rotate the flywheel with your left hand while spraying lubricant on the chain with your right hand. Move the flywheel through six full rotations to lubricate the entire chain.

Wipe any excess lubricant from the surface of the bike and replace the chain cover. You may need to rotate the pedal to maneuver the chain cover back into place. Insert and torque the screw to 35 ft.-lbs.

Note! If the chain has stretched or is broken, replace it.

Check Chain Tension: Proper chain tension will extend the life of the chain and drive components.

Caution! Extreme care must be taken to not draw your fingers into the chain and sprockets. This will cause serious injury, including finger loss.

It is not necessary to remove the chain cover to check the tension. Apply maximum resistance to the flywheel by moving the shift lever to the maximum counter-clockwise position. Gently move the crank arm back and forth being careful not to rotate the flywheel. The crank arm should not move more than 1/8 inch. If the movement is greater than this, the chain needs to be tensioned. See “Chain Tension Adjustment” instructions on page 8. If the chain is properly adjusted but makes noise, it may be worn and in need of replacement. See “Chain Replacement” instructions on page 9.

Check Friction Belt

Release the resistance on the flywheel by moving the shifter to the maximum clockwise position. Gently pull the friction belt sideways, away from the flywheel without unhooking the belt. Inspect both sides of the friction belt for excessive wear. If the belt is black, shiny, slick or thin it must be either reversed or replaced. See “Friction Belt Replacement” instructions on page 9.

Check Bottom Bracket and Crank Arms

Tools needed: Torque wrench and 14mm socket.

Re-torque the crank arm bolts to 35 ft.-lbs. Wiggle the crank arms back and forth to check for looseness. If the axle appears to move within the bottom bracket bearing, the bearing is worn and must be replaced. See “Bottom Bracket Replacement” instructions on page 10.

Check Shift Cable Assembly

Inspect the shift cable assembly for damage, excessive stretch or slipping. If the cable is damaged or worn, replace it. See “Shift Cable Assembly Replacement” instructions on page 9.

Lubricate Shift Lever

Tools required: LPS 2® and #2 Phillips screwdriver.

Using a Phillips screwdriver, loosen the shift lever tension screw until the thread is visible. Apply LPS 2® to the thread and to the top of the shift lever. Re-insert the screw, being careful not to over-tighten, as this will prevent the shift lever from moving.

Lubricate Handle Stud Assembly

Tools required: Hydrotex® MT-55 grease.

Unscrew the handle stud assembly and remove it from the threaded insert. Lightly apply MT-55 grease to the threads of the threaded insert. Re-insert the handle stud assembly into the threaded insert.

Clean Flywheel

Tools required: sanding sponge, LPS 2® and clean cloth.

Caution! Use extreme care when cleaning the flywheel. Position the sanding sponge in the flywheel groove, keeping hands, fingers, clothing, etc. away from the bike frame to avoid getting snagged or pinched. Failure to follow this instruction could result in serious injury.

Release the resistance to the flywheel by moving the shifter to the maximum clockwise position. Unhook the friction belt. Place a rag below the flywheel to catch any excess lubricant and debris. Slowly spin the flywheel while applying a light coat of LPS 2® to the entire flywheel groove. The LPS 2® loosens corrosion on the flywheel and this needs to be removed with a clean cloth.

Hold the sanding sponge in the groove of the flywheel with one hand while slowly rotating the flywheel by turning the pedal forward with the other hand. Use a clean dry cloth to remove the sanding sponge debris on the flywheel. Once the flywheel is free from debris, reinstall the friction belt.

Clean Bike

Tools required: Warm water, paste or spray wax and clean cloth.

Warning! Failure to apply a coat of wax at least once a month will decrease paint and frame life due to corrosion and will void the warranty.

Clean the bike using warm water and a clean, soft cloth. Dry thoroughly. Apply wax to the seat (this will help seal the surface), frame, seat post tube and handlebar tube in accordance with the wax manufacturer's instructions.

MAINTENANCE ADJUSTMENTS

Note! The following adjustments should only be performed by a maintenance professional.

Chain Tension Adjustment

Tools required: 9/16-inch socket and torque wrench

Caution! Extreme care must be taken to not allow your fingers, hair, clothing, etc. to be drawn into the chain and sprockets. Failure to follow these instructions could result in serious injury, including the loss of fingers.

Release the resistance to the flywheel by moving the shifter to the maximum clockwise position. Loosen the screws on the chain cover. From behind the bike, grasp the underside of the flywheel. Your hand should be between the friction belt and the bottom of the chain cover, but it should not be touching either. Pull the flywheel firmly toward your body. Make sure that the flywheel is aligned with the bike frame. Re-torque the screws on the chain cover to 35 ft-lbs. Check the adjustment by gently moving the crank arm back and forth being careful not to rotate the flywheel. The crank arm should not move more than 1/8".



Chain Replacement

Tools required: 9/16-inch socket and torque wrench

Release the resistance to the flywheel by moving the shifter to the maximum clockwise position. Remove the chain cover and slightly loosen the forward screw. From behind the bike, push the flywheel forward until the chain is loose enough to remove. Install the new chain by carefully threading it over the crank arm sprocket and flywheel cog. If the replacement chain is supplied by Keiser, it is lubricated before leaving the factory and requires no additional lube at this time. If the chain is not purchased from Keiser, then lubricate the chain as previously instructed. Replace the chain cover. Tension the chain as described in the “*Chain Tension Adjustment*” section on page 6. Re-torque the chain cover screws to 35 ft-lbs.

Friction Belt Adjustment

To adjust the friction belt, lift and release the lever on the friction belt buckle. To increase tension, pull the belt through the buckle toward the main frame. To decrease tension, pull the belt away from the main frame. Depress and lock the lever on the buckle.

Friction Belt Replacement

Note! *The friction belt is reversible. The friction belt should be reversed or replaced when it becomes black, shiny, slick or thin. Always clean the flywheel groove when reversing or replacing the friction belt.*

Release the resistance to the flywheel by moving the shifter to the maximum clockwise position. Remove the friction belt and use the reverse side, if possible, and exchange the ends. Place the end that was in the friction belt buckle on the tension spring. Wrap the belt around the flywheel being careful not to twist the belt. Insert the free end of the belt into the belt buckle and adjust the friction belt as previously instructed.

Shift Lever Tension Adjustment

Tools required: #2 Phillips screwdriver

If the shift lever moves during the workout, the tension screw should be tightened to prevent that movement. Use a Phillips screwdriver to rotate the shift lever tension screw clockwise to the desired tension.

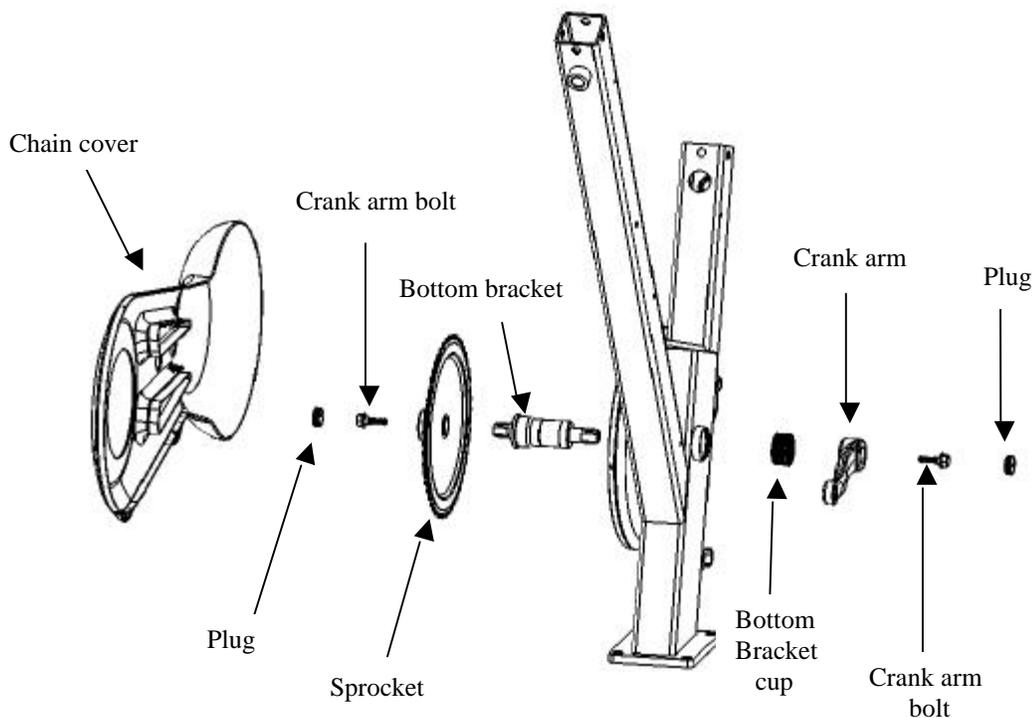
Shift Cable Assembly Replacement

Tools required: #2 Phillips screwdriver, 5/16-inch open-end wrench

Use a Phillips screwdriver to loosen the screw that is holding the shift lever in place on the handlebar. Remove the cable from the plastic anchors on the frame. Use a 5/16-inch open-end wrench to loosen the nut at the base of the tension spring. Continue to loosen the nut until you can easily slide the shift cable assembly off the main frame. Install the new assembly.

Bottom Bracket Replacement

Tools required: crank arm puller, bottom bracket socket, torque wrench, 9/16-inch socket, 14mm socket, Loctite 242®, paper clip and clean cloth.



Caution! Extreme care must be taken to not allow your fingers, hair, clothing, etc. to be drawn into the chain and sprockets. Failure to follow these instructions could result in serious injury, including the loss of fingers.

Apply full resistance to the flywheel by moving the shifter to the maximum counter-clockwise position. Remove the chain cover using a 9/16-inch socket to remove the rear screw on the chain cover. Take off the chain cover by pulling out on the tabs at the bottom of the chain cover. Maneuver the chain cover around the crank arm and pedal.

Insert a paper clip into one of the small holes on the black plug on each crank arm and pop out each plug. Remove the crank arm bolts with the 14mm socket and discard the bolts. Following the instructions supplied with your crank arm puller, remove the crank arms. Be careful not to strip the threads. Use the splined bottom bracket socket to remove the bottom bracket cup on the left side. Turn the socket counter-clockwise during removal. When removing the right side bottom bracket cartridge, turn the socket clockwise. Discard the cup and cartridge. ***Note! Be careful not to round out the teeth on the bottom bracket socket.***

Use a clean cloth to remove old Loctite 242® residue from the threads where the bottom bracket cup and cartridge were removed. Shake the Loctite 242® and apply three drops to the threads of the new bottom bracket assembly. ***Note! Do not drip Loctite 242® onto the bike frame, as it will damage the painted surface.***

Insert the new bottom bracket cartridge on the right side, turning in a counter-clockwise direction, and the new bottom bracket cup on the left side, turning in a clockwise direction. Using the splined bottom bracket socket on a torque wrench, torque both sides to 57 ft.-lbs. ***Warning! Failure to install the new bottom bracket with Loctite 242® will void the warranty and could lead to serious injury. Failure to torque the new bottom bracket assembly to 57 ft.-lbs. will void the warranty and could lead to serious injury.***

Place the left and right crank arms onto the bottom bracket axle facing in opposite directions. Apply one drop of Loctite 242® to the new crank arm bolt. Insert the bolt into the left side of the crank arm and torque to 35 ft.-lbs. Apply one drop of Loctite 242® to the other new crank arm bolt and insert it into the right side of the crank arm and torque to 35 ft.-lbs. Reinsert the crank arm plugs.

Re-install the chain by carefully threading it over the crank arm sprocket and flywheel cog. Replace the chain cover. Tension the chain as described in the “Chain Tension Adjustment” section on page 8. Re-torque the chain cover screws to 35 ft.-lbs. ***Note! Keiser recommends the bottom bracket be changed every 18 – 24 months.***

TROUBLESHOOTING

Vibration during use	Chain tension may not be adjusted properly. See “ <i>Chain Tension Adjustment</i> ” instructions on page 8.
Chain falls off	Chain has too much slack. See “ <i>Chain Tension Adjustment</i> ” instructions on page 8.
Excessive noise from chain	Chain is too tight. See “ <i>Chain Tension Adjustment</i> ” instructions on page 8. Check chain cover for rubbing. If chain is worn, replace it using the “ <i>Chain Replacement</i> ” instructions on page 9.
Full load not enough	Friction belt is too loose or may be worn. See “ <i>Friction Belt Adjustment</i> ” instructions on page 9. Check friction belt for worn spots. If worn, replace belt. See “ <i>Friction Belt Replacement</i> ” instructions on page 9.
Load is too high	Friction belt is too tight or the flywheel groove needs cleaning. See “ <i>Friction Belt Adjustment</i> ” instructions on page 9. See “ <i>Clean Flywheel</i> ” instructions on page 8.
Tension range has decreased	The friction belt, flywheel, and shift cable assembly affect the shift lever tension range. If these three items are not checked periodically your tension range will decrease, resulting in less load range between your maximum and minimum tension.

PREVENTIVE MAINTENANCE CHART

MAINTENANCE	DAILY	WEEKLY	MONTHLY	YEARLY
Clean bike	✓			
Check chain cover	✓			
Check chain tension		✓		
Check friction belt		✓		
Check bottom bracket and crank arms		✓		
Check shift cable assembly		✓		
Wax bike			✓	
Clean flywheel			✓	
Lubricate chain			✓	
Lubricate shift lever			✓	
Lubricate handle stud assembly			✓	
Replace friction belt				✓
Replace pedals				✓

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