

MATRIX



V Series Indoor Cycle

Manufactured by:
Matrix Fitness
Johnson Health Tech Co. Ltd.

No.26, Ching Chuan Rd.
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428 TAIWAN, R. O. C.

CAUTION !

Read all precautions and instructions in this manual before using this equipment. Keep this manual for future reference.

Improper assembly, maintenance or use can void the warranty terms.

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Technical specifications:

The Matrix V Series is according to EN 957 a Class S product for professional and / or commercial use. Such training equipment is intended for the use in training areas of organizations such as fitness clubs or sport associations, where access and control is specially regulated by the person who has the legal responsibility.

Foot print:	142 x 54 cm / 56 x 21.25 inch
Weight of bike:	49 kg / 108 lbs
Max saddle height:	115 cm / 45.3 inch
Max handlebar height:	115 cm / 45.3 inch
Max user weight:	130 kg / 287 lbs

The Bike is designed to accommodate most users from 150 to 205 cm / 59.1 to 81.7 inch body height.

IMPORTANT PRECAUTIONS

WARNING!

To reduce the risk of serious injury, read the following important precautions and information before operating the Matrix V Series.

1. It is the responsibility of the owner to ensure that all users of the indoor cycle are informed of all warnings and precautions.
2. Operate and maintain the indoor cycle only as described in this manual.
3. Do not operate the indoor cycle until it is properly assembled (see page 5-8).
4. Keep the bike indoors, away from moisture and dust. Do not place the indoor cycle in a garage or covered patio or near water.
5. Place the indoor cycle on a level surface. To protect the floor or carpet from damage, place a mat beneath the indoor cycle. Make sure that there is adequate room around the indoor cycle to mount, dismount, and operate it.
6. Regularly inspect and properly tighten all parts of the indoor cycle as recommended in this manual. Please replace defective parts immediately and do not use the bike until repair is performed. Only use original parts from the manufacturer.
7. Children under the age of 14 should only be allowed use of the indoor cycle with parental consent and guided by a specially trained instructor.
8. The indoor cycle should not be used by persons weighing more than 287 pounds (130 kg).
9. Always wear appropriate athletic clothes and shoes while operating the indoor cycle. Do not wear loose clothes that could become caught on the indoor cycle or shoes with loose laces.
10. Before using the indoor cycle, make sure that you are familiar with the operation of the indoor cycle (see pages 8-12).
11. The indoor cycle does not have an independently moving flywheel (wheel); the pedals will continue to move together with the flywheel until the flywheel stops.
12. Always regulate the flywheel resistance so that your pedaling motion is controlled (see page 12).
13. Keep your back straight while using the indoor cycle; do not arch your back.
14. If you feel pain or dizziness while exercising, stop immediately, rest and cool down.
15. If replacement parts are needed, use only manufacturer supplied parts.

WARNING:

Before beginning any exercise program, consult your physician. This is especially important for persons over the age of 35 or persons with pre-existing health problems. Read all instructions before using. Be aware that incorrect or extensive training may result in serious health injuries. The manufacturer assumes no responsibility for personal injury or property damage sustained by or through the use of this product.

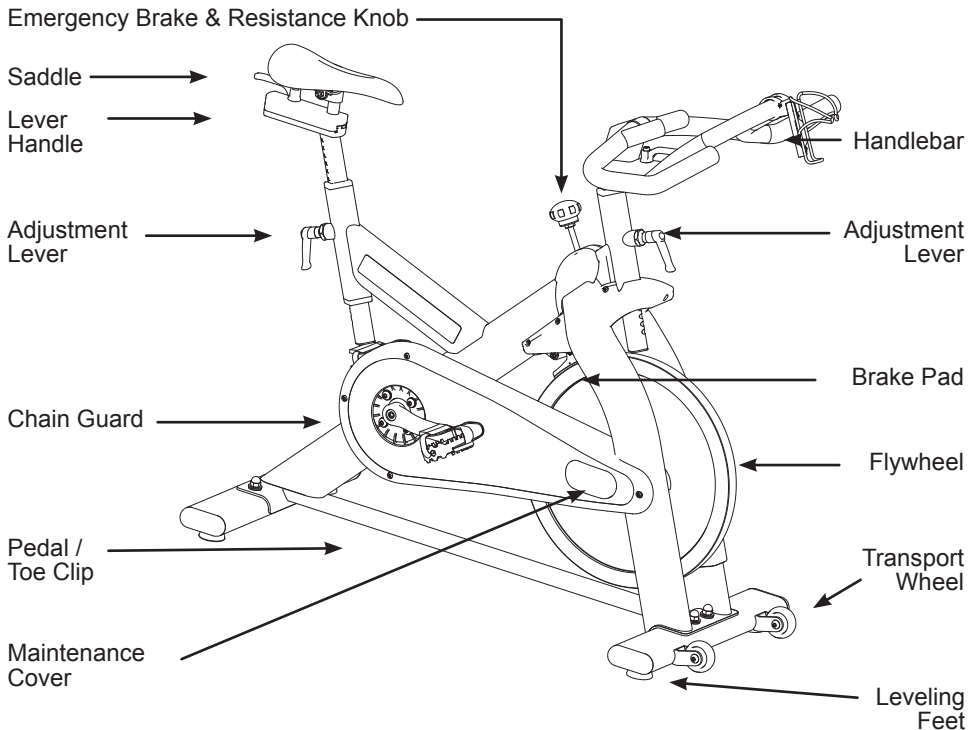
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BEFORE YOU BEGIN

Dear customer,
Congratulations for selecting the Matrix V Series. The Matrix indoor cycle offers an impressive array of features designed to enhance cardiovascular fitness, tone muscles, and develop endurance. Whether users are beginners or experienced athletes, the Matrix V Series offers workouts that will help users to reach their individual fitness goals.

IMPORTANT: Read this manual carefully before assembling or using the indoor cycle.

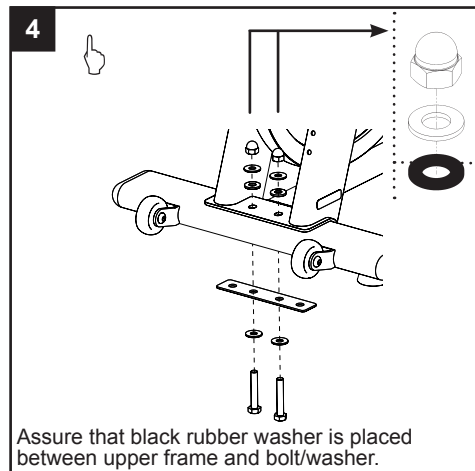
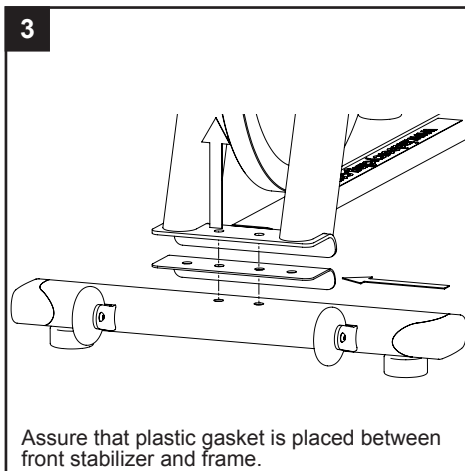
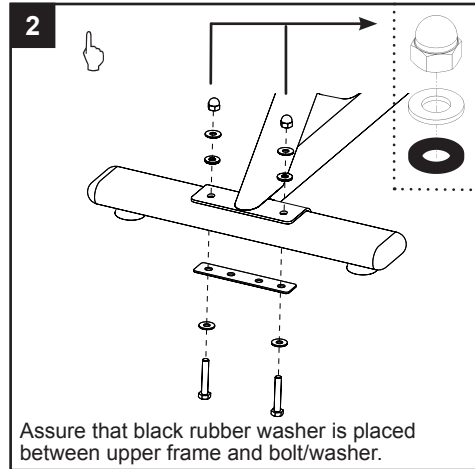
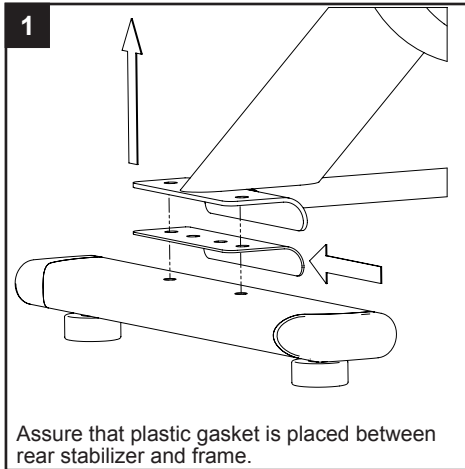
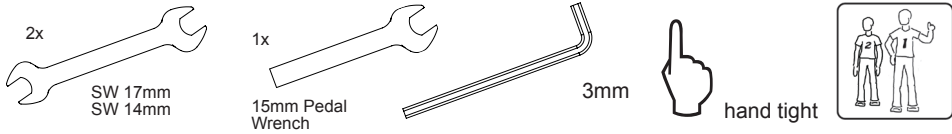
If you have questions after reading this manual, please contact your local distributor or refer to the website www.matrixfitness.com. Before reading further, please familiarize yourself with the parts that are labeled in the drawing below.



You will find the production code on the left side of the Matrix V Series within the lower range of the frame. Please record this number on your service & maintenance list for easy reference.

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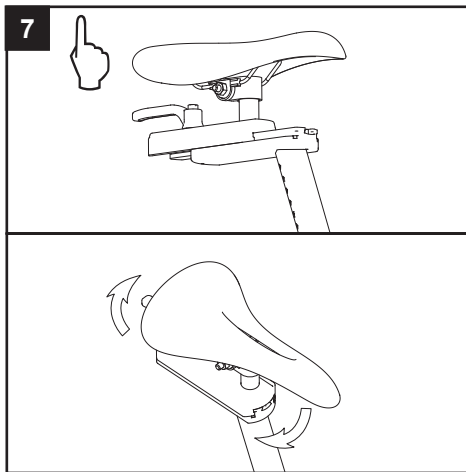
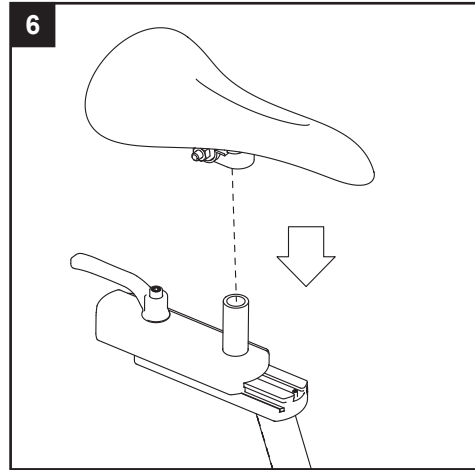
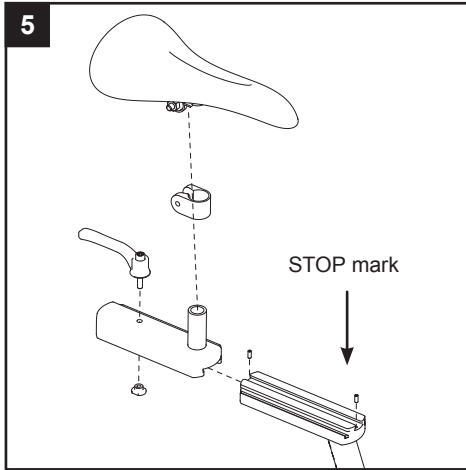
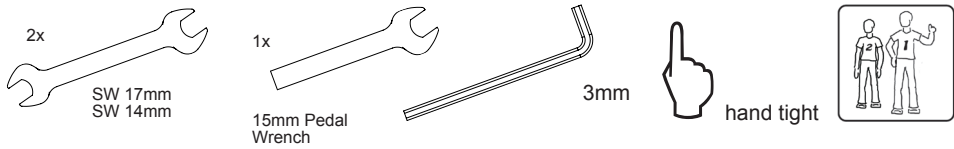
HOW TO ASSEMBLE Matrix V Series



Please assure that nuts are tightened with significant strength to minimize loosening during use.

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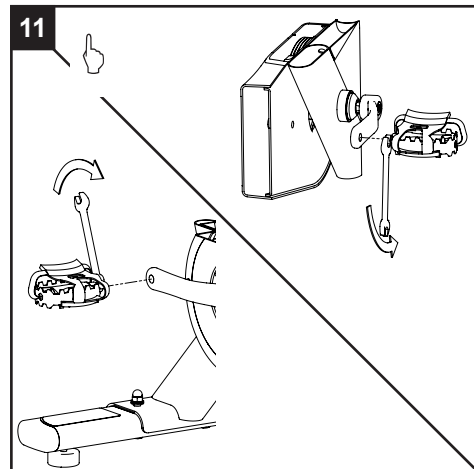
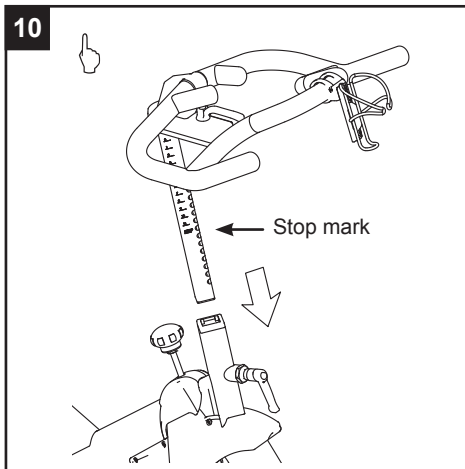
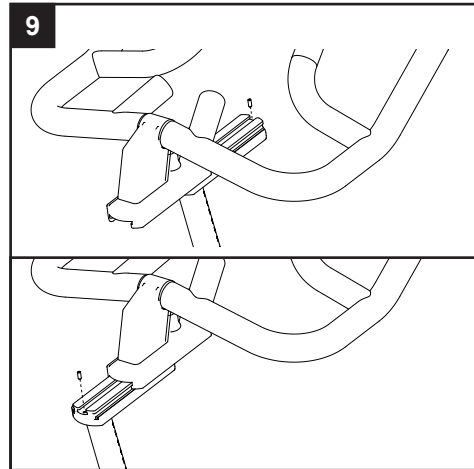
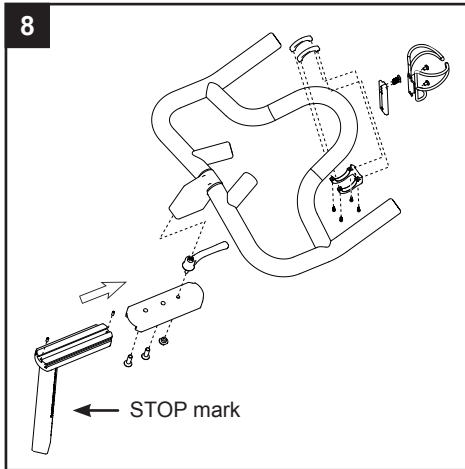
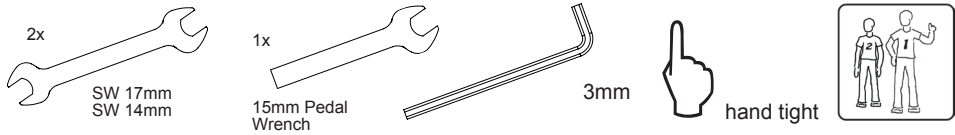
HOW TO ASSEMBLE Matrix V Series



Make sure the seat is fixed properly in a LEVEL HORIZONTAL position and securely tightened!

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HOW TO ASSEMBLE Matrix V Series



Pedal marked R installed on right crank (clockwise). Pedal marked L installed on left crank (counter-clockwise) Pedals must be fastened with significant strength to avoid loosening with use of the Matrix V Series.

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INITIAL INSTALL CHECKS

The cycle tune-up must be performed at initial installation of the indoor cycle for optimal performance and longevity. Please read and follow all instructions below. If the indoor cycle is not installed and tuned as described, components may wear excessively and the cycle may become damaged. If you have questions about the installation, please contact us by using the website www.matrixfitness.com.

Note: Some maintenance procedures require acid, silicone and solvent free spray lubricant (for example BRUNOX), and White Lithium grease.

1. Make sure that the Matrix V Series is level. If the Matrix V Series rocks on the floor, turn the leveling feet underneath the front and/or rear stabilizer until the rocking motion is eliminated.
2. Verify emergency brake function to assure that emergency brake functions correctly.
3. Brake pad calibration: turn resistance knob counterclockwise as far as possible (minimum braking effect), verify that there is a slight separation of the brake pad from flywheel. Brake pad should barely touch the flywheel when resistance knob is turned counter-clockwise as far as it can go.
4. Apply WD40 or Brunox spray lubricant to the brake pad using the lubrication holes on the plastic part or the brake pad and externally on the felt pad. Make sure brake pad is thoroughly soaked from end to end with lubricant spray. Then, wipe the excess off from the flywheel.

* Best Practice: Use a refillable spray bottle filled with non-aerosol acid, silicone and solvent free spray lubricant purchased by the gallon (3.7 L) at the local hardware store.
5. Apply lithium grease to the threads on the lower end of the brake rod. First, turn the resistance knob clockwise until it stops. Apply a small amount of white lithium grease to the threads on the brake rod above the two lock nuts. Then, turn the resistance knob counter-clockwise until it stops.
6. Apply lithium grease on the metal threads of all the adjustment levers.
7. Verify four (4) Allen nuts on RS pulley for tightness. If loose, apply Loctite Threadlocker Blue-242 and retighten.
8. Verify R and L crank arm Allen bolts for tightness. If loose, apply Loctite Threadlocker Blue-242 and retighten.
9. Verify belt tension. Check if belt drive is firmly tightened and does not slip while riding under resisted load. In case the belt slips, proceed using the adjustment technique as described on page (17). Please note that a belt drive gear never shows slack. In case of adjustment do not apply too much tension.
10. Wipe down bike frame with rag moistened with solvent free spray lubricant.
11. Some parts of the cycle may become loose during shipment. Check crank arms, check all exposed screws, bolts, and nuts, and make sure that they are properly tightened.

Customer Service

1. Provide basic maintenance instructions to client and direct them to the detailed maintenance instructions (page 18).
2. Sign-off sheet provided to client to confirm explanation of maintenance procedures/manual and verification of condition of bikes.

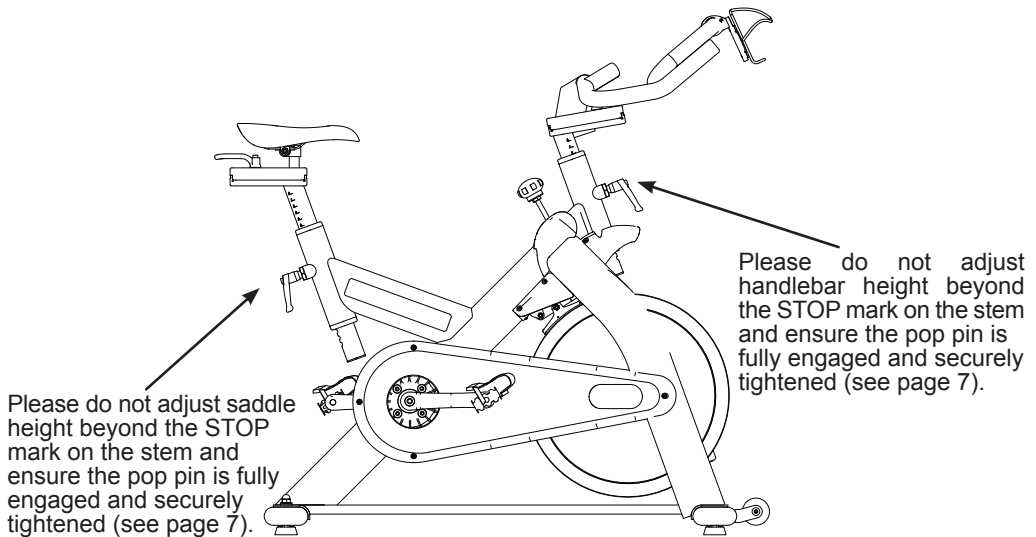
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HOW TO ADJUST THE INDOOR CYCLE

The cycle can be adjusted for maximum comfort and exercise effectiveness. The instructions below describe one approach to adjusting the cycle to ensure optimal user comfort and ideal body positioning; you may choose to adjust the cycle differently.

Pedal strap adjustment:

Sit on the saddle and position your feet on the pedals, with the balls of your feet directly above the spindles of the pedals (see the drawing below). Adjust the pedal straps so the toe clips (cages) are snug but not too tight. Note: In the case of a Bike being fitted with Combi-pedals, the pedals feature toe clips on one surface and SPD cleats on the opposite surface. If desired, use the shoe cleats with cycling shoes instead of the toe clips.



Please avoid overtightening the pop pin adjustment knob as this may cause damage to the vertical aluminum stems.

Saddle height adjustment:

Sit on the saddle and slowly pedal until the right pedal is in the lowest position. Your knees should be slightly bent without a dropping of the hips.

To avoid hyper extending your knees, make sure that your legs are not completely straight.

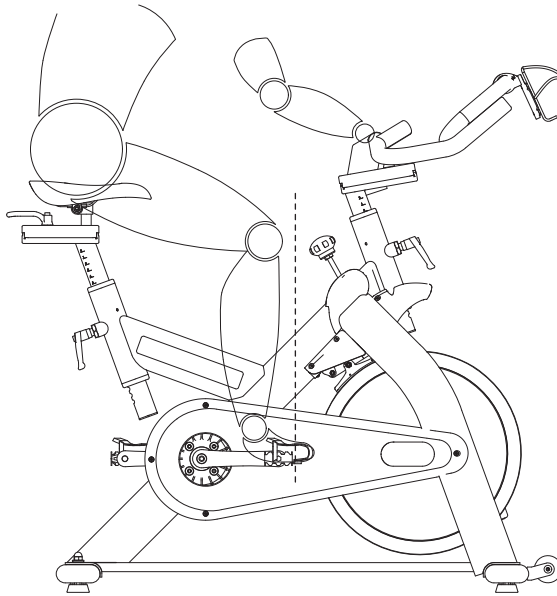
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HOW TO ADJUST THE CYCLE

Saddle horizontal adjustment:

Proper horizontal adjustment of the saddle is very important in avoiding injury to the knees. Sit on the saddle and move the pedals until the crank arms are in horizontal position.

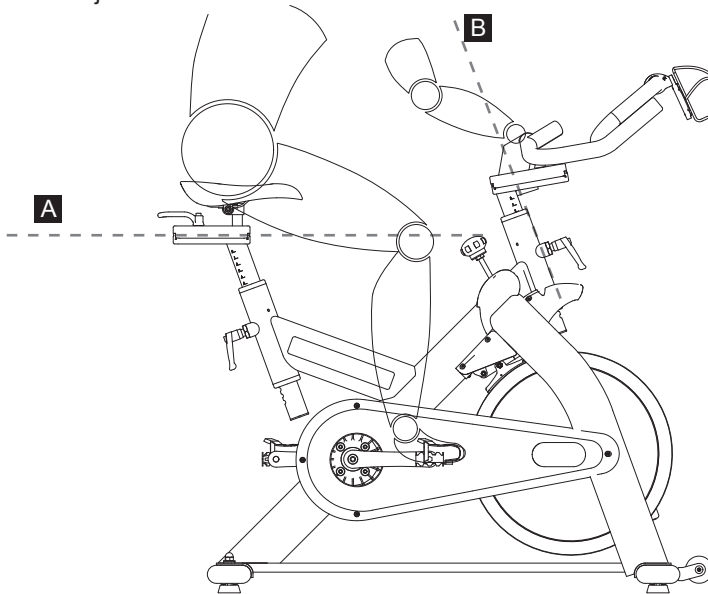
Using your forward most leg as a marker, your kneecap should be directly above the center of the pedal so that a straight line is created between knee and center of the pedal (**see the dotted line in image below**). To adjust the horizontal position of the saddle, first dismount the cycle. Next, loosen the rear adjustment knob, slide the saddle forward or backward as required, and then retighten the knob.



HOW TO ADJUST THE CYCLE

Handlebar adjustment:

Begin with the top of the handlebar at relatively the same height or just slightly higher than the top of the saddle (**dotted horizontal line A in the drawing above**) and at a neutral fore/aft position (**see dotted vertical line B in drawing above**). If your knees touch the handlebars or if you experience back discomfort while pedaling for extended periods of time, the height of the handlebars can be adjusted. First, dismount the cycle. Next, turn the front adjustment knob counter clockwise, slide the handlebar post up or down, and then retighten the adjustment knob.



If the handlebar is too close to the saddle, your breathing may feel restricted; if the handlebar is too far from the saddle, you may experience back discomfort. To adjust the horizontal position to the handlebar, first dismount the cycle. Check for proper handlebar position by positioning your elbow so that it is touching the front tip of the saddle at a 90 degree angle and checking that the fingertip of your middle finger is touching the handlebar at the mid-point. If it is not as described, then loosen the fore-aft lever and slide the saddle slightly forward or backward until your middle finger is touching the handlebar at the mid-point, and then retighten the handle. Changing your hand position can change the angle of your back, neck, and arms. To minimize the stress on your muscles during your workouts, change your hand position frequently.

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HOW TO OPERATE THE CYCLE

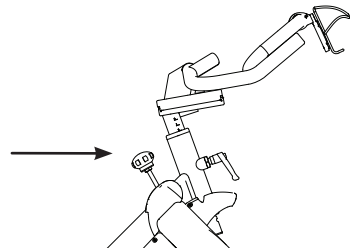
Resistance adjustment:

The preferred level of difficulty in pedaling (resistance) can be regulated in fine increments by use of the resistance knob. To increase the resistance, turn the resistance knob clockwise. To decrease the resistance, turn the knob counter clockwise.

IMPORTANT: To stop the flywheel (wheel) while pedaling, push down on the red brake knob. The flywheel should quickly come to a complete stop. Please make sure your shoes are fixed into the toe clip or in case cycling shoes are used your shoe cleat is connected to the pedal binding while riding.

! The cycle does not have a free moving flywheel (wheel); the pedals will continue to move together with the flywheel until the flywheel stops. Reducing speed in a controlled manner is required. To stop the flywheel immediately, push down the red brake. Always pedal in a controlled manner and adjust your desired cadence according to your own abilities. Push the red knob down = emergency stop !

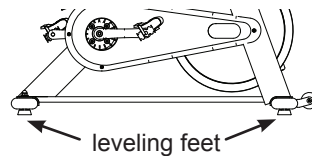
Red Resistance knob (turn)
Emergency brake (push)



How to move the cycle:

Due to the weight of the cycle, it is recommended that two people move it. While one person lifts the back of the cycle, the second person firmly holds the handlebar and tips the cycle forward until it rolls on the wheels. Carefully move the indoor cycle to the desired location and then lower it. **CAUTION: To reduce the risk of injury, use extreme caution while moving the indoor cycle. Do not attempt to move it over uneven surfaces and make sure a safety space of min 20 inches to the nearest equipment is achieved.**

If the cycle rocks on the floor after being set down, turn the leveling feet (see diagram) underneath the front or rear stabilizer until the rocking motion is eliminated. **Important:** Please do not unscrew the leveling feet more than 1/2 inch!



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PREVENTATIVE MAINTENANCE

Regular maintenance must be performed on the cycle for optimal performance and longevity. Please read and follow all instructions below. If the cycle is not maintained as described, components may wear excessively and the cycle may become damaged. Improper maintenance will void the warranty terms. If you have questions about maintenance, contact your local distributor or refer to www.matrixfitness.com.com.

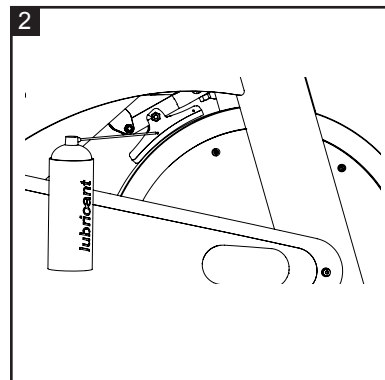
Note: Many maintenance procedures require lubricant spray. Manufacturer recommends Brunox or a similar solvent and acid free lubricant.

Daily maintenance:

1. Make sure that the cycle is level. If the cycle rocks on your floor, turn the leveling feet underneath the front or rear stabilizer until the rocking motion is eliminated (see HOW TO MOVE THE CYCLE on page 12).
2. After each user finishes exercising, the Matrix V Series should be disinfected and cleaned to maintain a hygienic environment. First, apply a disinfectant spray to the handlebars and the saddle. Using a lint-free cloth, dry the handlebars and the saddle. Next, apply a small amount of disinfectant to a lint-free cloth and clean the adjustment knobs and the adjustment handles. Avoid using strong detergents on the Matrix V Series frame.

Weekly maintenance:

1. Apply a small amount of the lubrication spray to a lint-free cloth, and thoroughly clean the frame, the handlebar slider and seat sliders, the flywheel and the plastic parts of the cycles.
2. For optimal performance of the resistance system, and to minimize wear on the brake pad, the **acid, silicone and solvent free spray lubricant** should be applied to the brake pad using the lubrication holes on the plastic part of the brake pad. If fuzz or lint appears on the brake pad, the brake pad has become too dry—lubricant spray should be applied more frequently. Make sure brake pad is thoroughly soaked from end to end with lubricant spray. Then, wipe off the excess.

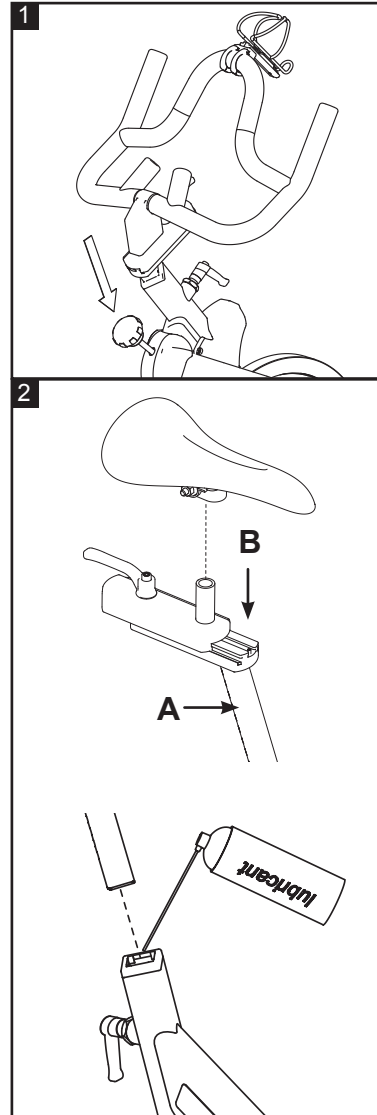


Bi-weekly maintenance:

1. The cycle should not be used if the emergency brake system is not working properly. While sitting on the saddle and pedaling, test the brake by pushing down the brake knob. The flywheel should come to a quick and complete stop.

2. To maintain the easy adjustability of the saddle post, the saddle post should be cleaned and lubricated. Turn the rear adjustment knob counter clockwise and slide the saddle post out of the frame. Apply a small amount of lubricant spray to a lint-free cloth, and clean the saddle post (**A**). Next, apply a small amount of lubricant spray inside of the rear frame sleeve. Then, reinsert the saddle post into the frame and adjust it to the desired height.

Next, loosen the rear lock handle and slide the saddle carriage as far backward as possible. Apply a small amount of lubricant spray to a lint-free cloth, and clean the top of the saddle slide (**B**). Then, slide the saddle carriage as far forward as possible and clean the top of the saddle slide. Finally, adjust the saddle to the desired position.

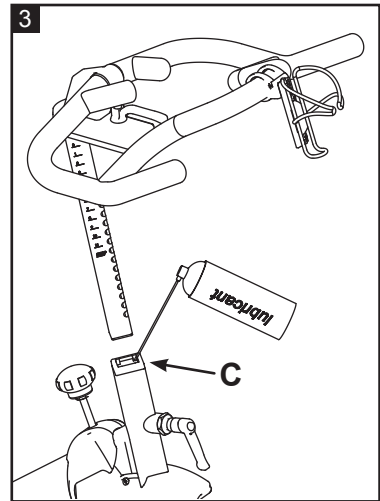


PREVENTATIVE MAINTENANCE

3. To maintain the easy adjustability of the handlebar post, the handlebar post should be cleaned and lubricated. First, turn the front adjustment knob counter clockwise and slide the handlebar post out of the frame. Apply a small amount of lubricant spray to a lint-free cloth, and clean the handlebar post (**C**). Next, apply a small amount of lubricant spray inside of the front frame sleeve.

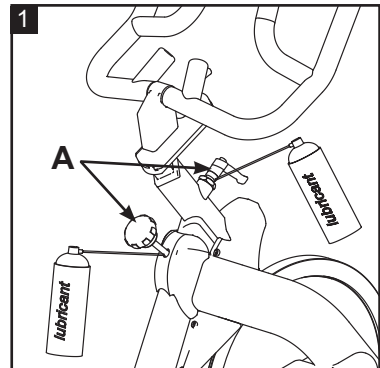
Then, reinsert the handlebar post into the frame and adjust it to the desired height.

Next, loosen the front lock handle and slide the handlebar carriage as far backward as possible. Apply a small amount of lubricant spray to a lint-free cloth and clean the surface of the handlebar slide. Then slide the handlebar carriage as far forward as possible and clean the top of the handlebar slide. Finally, adjust the handlebar to the desired position.



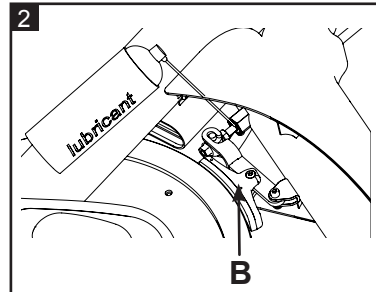
Monthly maintenance:

1. To maintain the smooth function of the adjustment levers controlling the handlebar and saddle, the metal threads on the adjustment levers (**A**) must be lubricated. Use of a white lithium grease is recommended.

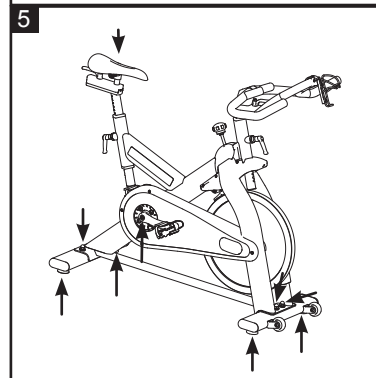


PREVENTATIVE MAINTENANCE

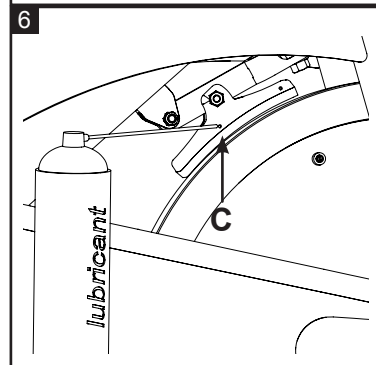
2. To maintain the easy adjustability of the resistance system, the screw threads on the lower end of the brake rod should be lubricated. First, turn the resistance knob clockwise until it stops. Next, look under the right or left side of the frame and locate the brake rod (**B**). Apply a small amount of synthetic grease (white lithium grease) to the thread on the brake rod. Then, turn the resistance knob counter-clockwise until it stops.



3. Some parts of the cycle may become loose as a result of repeated use. Check pedals, toe clips, and pedal straps, and make sure that they are properly tightened. Next, check all exposed screws, bolts, and nuts, and make sure that they are properly tightened. Finally, check the saddle to make sure that it is not loose or damaged.



4. The brake pad will become worn as a result of repeated use. The cycle should not be used if the emergency braking system is not working properly (see page 12)! Should you feel that the resistance system's functions are deficient, it is essential to fine-tune the resistance system before the bike is used again. Please check the setting of the brake system as follows: first turn the resistance knob on the brake system as far as it will go to the left (minimum braking effect). If the setting is correct, the brake pads should be flush with the flywheel and barely touching so that it's possible to cycle with a hardly noticeable amount of resistance. The brake pad can be adjusted using a 10 mm wrench. Next, check the brake pad for signs of wear. If the brake pad does show signs of excessive wear, thoroughly soak the brake pad with lubricant spray using the 2 lubrication holes (**C**), and then wipe off the excess.



5. Belt drive

Important: A loose belt as well as an overtightened belt may cause injury of the rider or damage to the drive system. **Checking belt tension:** to check for a loose belt, sit on the saddle, place your feet on the pedals, move the pedals until the crank arms are horizontal. Next, push down the emergency brake lever and hold it. Then, stand on the pedals and rock forward and backward. There should be **no** play or slip in the drive train. If there is slip or play in the drive train, this indicates that the belt is too loose.

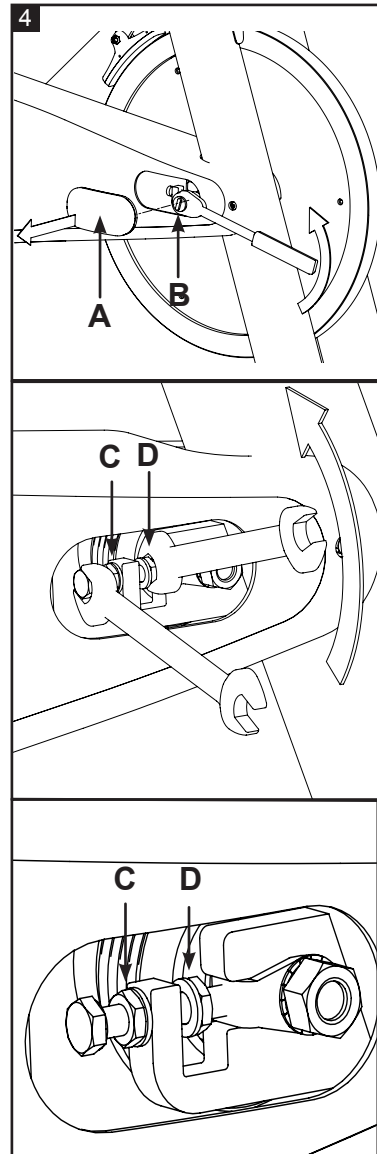
Correct a slipping belt drive train: to adjust the belt, pull off the right and the left maintenance covers (A). Loosen the axle nut (B) on both ends of the flywheel axle by two full turns. Loosen the inner adjustment nut (D) facing the flywheel axle on each side of the flywheel. Next, loosen the lock nut (C).

Then, turn both (right and left sides) of the inner adjustment nuts (D) on the inside of the flywheel bracket $\frac{1}{4}$ of a turn at a time (upward on the R side and downward on L side) until the belt is properly adjusted. Make sure to turn both adjustment nuts exactly the same amount to avoid misalignment of the flywheel. Re-check if the amount of play or slip in the drive train has disappeared.

Finally, retighten the two outer lock nuts (C) to secure the new adjustment and retighten the two axle nuts (B). At last reattach the maintenance covers (A).

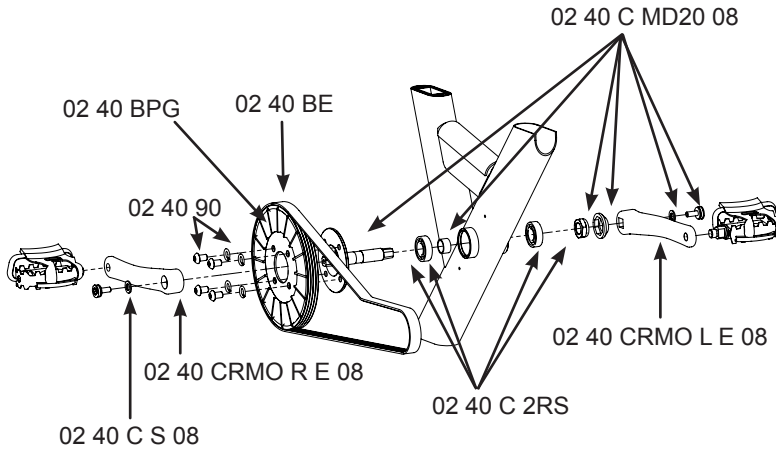
Check if **belt drive** is firmly tighten and does not slip while riding under resisted load. In case the belt slips, proceed using the same technique as described above. Please note that a belt drive gear never shows slack. In case of adjustment do not apply too much tension.

The manufacturer recommends using an ultrasonic voltage meter adhering to a natural frequency of the belt of $3200 \text{ Hz} \pm 150\text{Hz}$. Ball bearing damage due to incorrect belt tension is excluded from warranty.

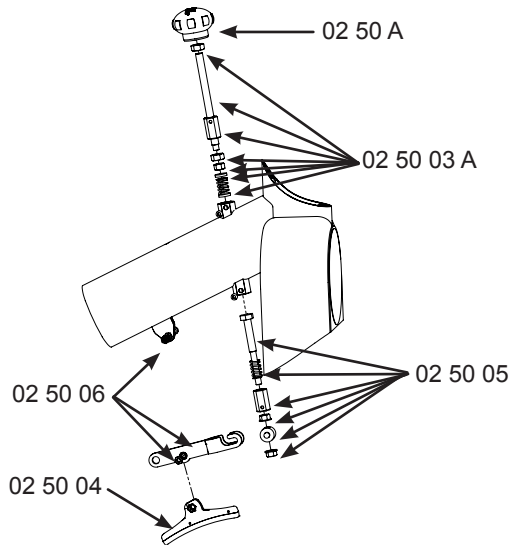


Graphics are the right side of the Bike (riding position)

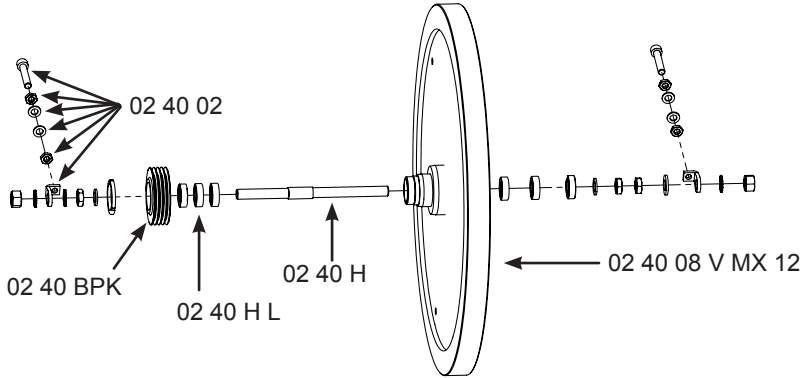
Drive Gear Parts



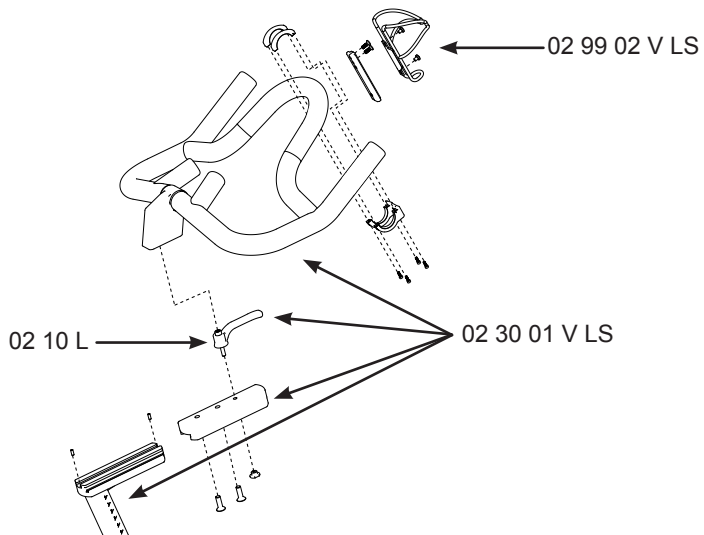
Brake Parts

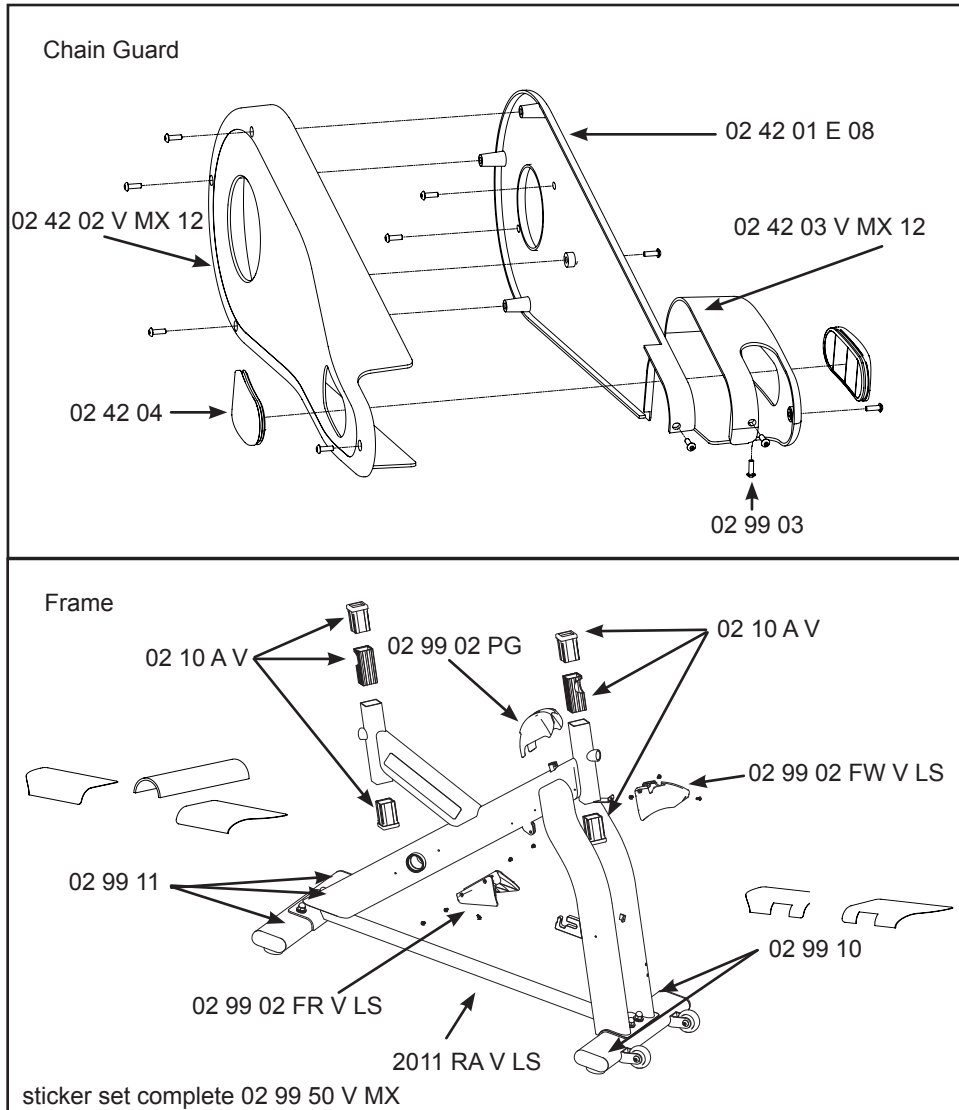


Flywheel



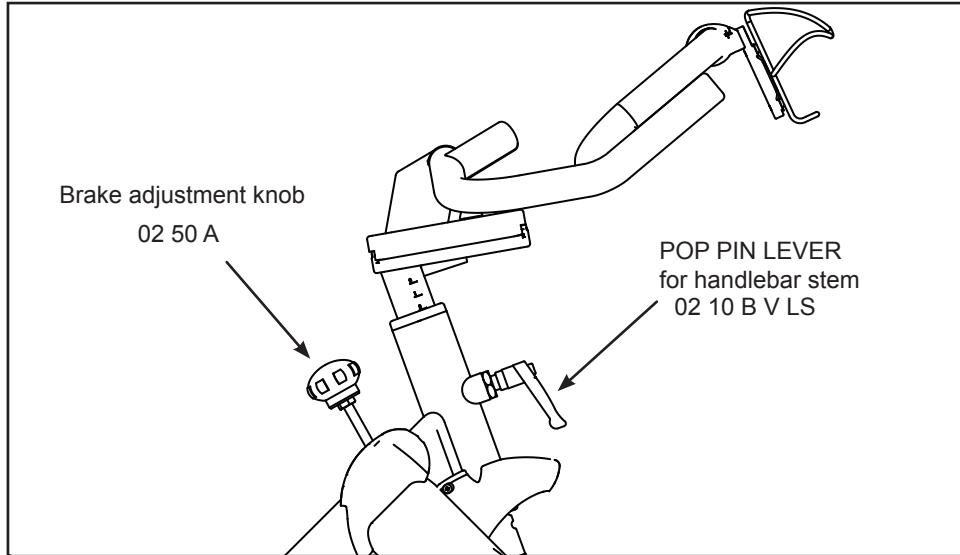
Handlebar

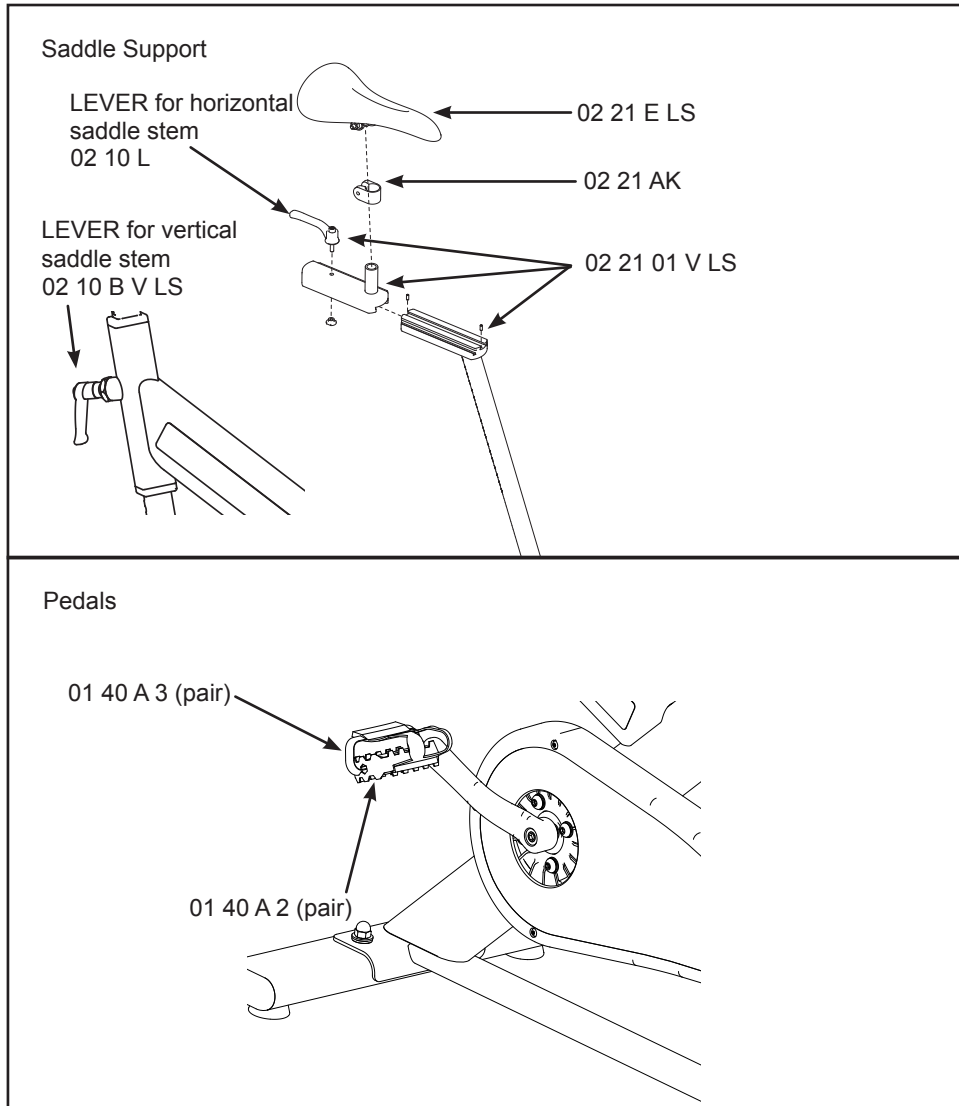


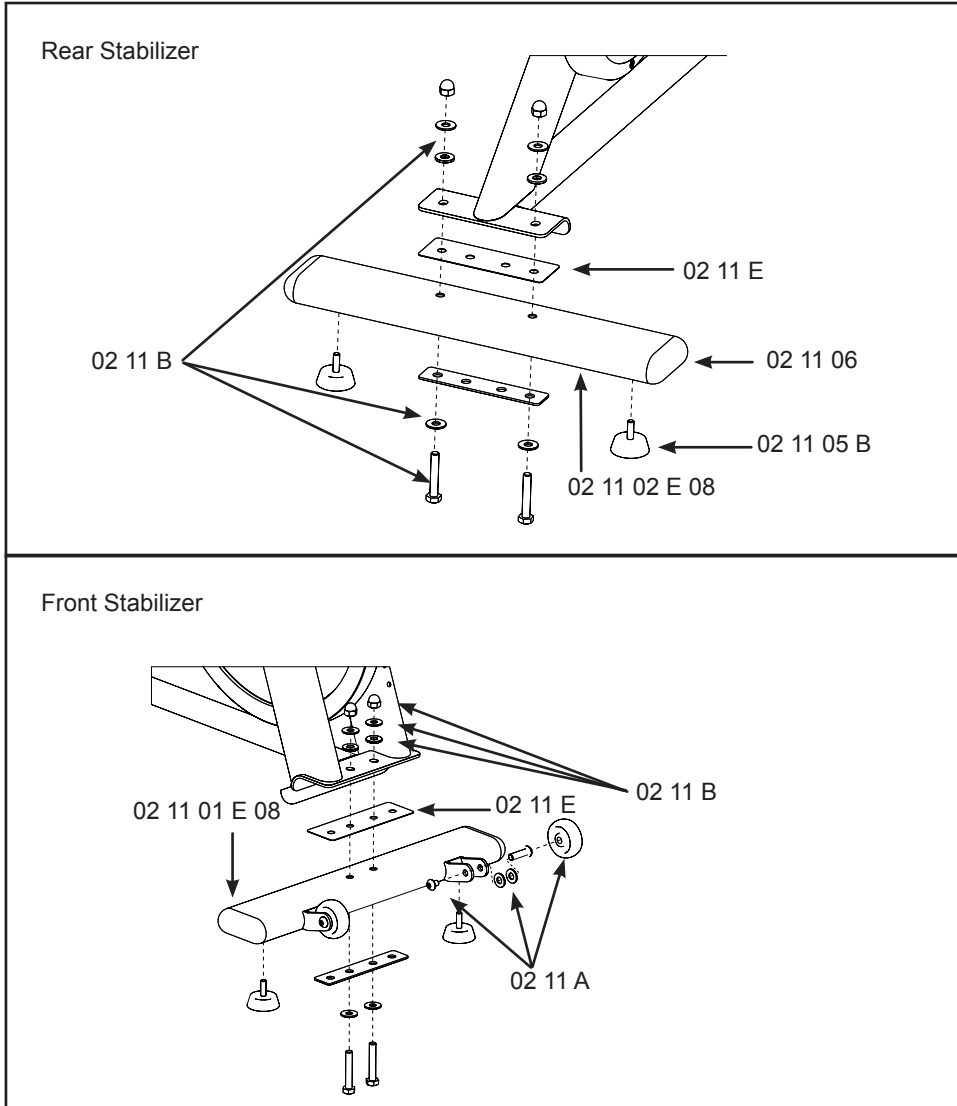


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SPARE PARTS







SPARE PARTS LIST

Drive Gear Parts

02 40 CrMo R E 08	Right crank
02 40 CrMo L E 08	Left crank
02 40 C S 08	Allen bolt M8x20
02 40 C MD20 08	BB assembly MD20
02 40 C 2 RS	Ball bearing SKF 6004Z

Brake Parts

02 50 A	Brake adjustment knob
02 50 06	Bell crank
02 50 04	Brake pad
02 50 03 A	Upper brake rod
02 50 05	Lower brake rod

Flywheel

02 40 H	Flywheel axle
02 40 02	Chain tensioner
02 40 H L	Flywheel bearing 6001Z
02 40 08 V MX 12	V Series flywheel

Handlebar

02 30 01 V LS	V Series handlebar
02 10 B V LS	Pop pin adjustment knob
02 10 L	Left fore/aft

Pedals

01 40 A 2	Combi-Pedals (pair)
01 40 A 3	toe strap (pair)

Front Stabilizer

02 11 01 E 08	Front Stabilizer
02 11 B	Stabilizer mounting kit
02 99 10	Front protection plates
02 11 A	Transport wheel
02 11 06	Plastic end cap

Chain Guard

02 42 02 V MX 12	Outer chain guard
02 42 04	Plastic cover
02 42 01 E 08	Inner chain guard
02 42 03 V MX 12	Left cover
02 99 03	Allen bolt M4x15

Frame

02 99 50 V MX	V Series frame
02 10 AV	Vertical insert sleeve
02 20 04	Rubber stop handlebar tube
02 99 02 V LS	Bottle holder
02 99 50 V MX	Sticker set complete

Belt drive

02 40 BE	Belt
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Saddle Support

012VL-3125 SI	Saddle
02 21 AK	Saddle mounting bracket
02 21 01 V LS	Horizontal & vertical saddle support
02 20 02	Horizontal insert sleeve
02 10 L	Lever fore/aft
02 10 V LS	Pop pin adjustment lever

Rear Stabilizer

02 11 V	PVC gasket
02 11 02 E 08	Rear Stabilizer
02 11 06	Plastic end cover
02 11 05 B MYR	Rubber foot stand
02 99 11	Rear protection plates

MATRIX

WARRANTY TERMS

Matrix Fitness warrants that all new equipment will be free of manufacturing defects in workmanship and materials, becoming effective on the date of original installation. Parts repaired or replaced under the terms of this warranty will be warranted for the remainder of the original warranty period only. Warranty may vary by region or country. Please contact www.matrixfitness.com.

Defects caused by inappropriate use or handling of the product may cause the manufacturers warranty to be invalid.

LIMITED WARRANTY Matrix V Series

5 years warranty: Frame construction, breakage, welding defects

3 years warranty: Handlebar and saddle assembly, brake system (excluding brake pad), lever handles and adjustment knobs, cranks, belt drive system, bottom bracket assembly, ball bearings, flywheel and hub assembly, powder coating, plastic components such as chain guard and left side hub cover, sweat guard, platform pedals (shoe cage system excluded), insert sleeves for handlebar and saddle post, and leveling feet;

1 years warranty: Saddle

Labor 90 Days: Matrix Fitness shall cover the labor cost for the repair of the device for a period of 90 days from the date of purchase, so long as the device remains in the possession of the original owner.

The following wear items are excluded from warranty:

Pedal straps, water bottle holder.