EXER·FLY

RACK-FLY INSTRUCTION MANUAL

ONLINE DOWNLOAD

V.2.3

Contents

Contents

Specifications

Dimensions

Top: 330 mm x 310 mm (13” x 12.2”)
Height: 120 mm (4.7”)

Weight

4.2 kg (excl accessories and flywheels)

Overview of parts

- Aluminum 7075 shaft
- High quality bearings
- 2 Different length mounting bolts
- Plastic spacers & Washers
- Large flywheel (0.1 kg.m2) 5kg
- Medium flywheel (0.05 kg.m2) 3.5kg
- Small flywheel (0.025 kg.m2) 2.5kg
- XSmall flywheel (0.0125 kg.m2) 1.8kg
- Max flywheels: 10 or 1.0 kg.m2
- Sensor & App

Accessories

- Ankle cuff
- Tricep rope
- Stainless steel carabiner
- Stirrup handle
- Flywheel holder
- Rope clamp
- Exerfly slider
- Sensor & app

Safety

The output of flywheel training depends on how much energy you put into it, so if you don't move it very quickly then it won't give you much back. In many ways it's self limiting but you should always exercise at an intensity you can manage.

If you haven't done a lot of activity then you may feel quite sore for a few days afterwards as your muscles will not be used to the constant resistance.

1. Keep away from the spinning flywheel and other moving parts when you or someone is using it.
2. Start with low inertial flywheels to learn how your body moves through the range of motion with the flywheel.
3. If you feel pain or dizziness during exercise, stop immediately. Likewise, be mindful when fatigue hits as this can affect balance and uncontrolled body movements. If you have problems with balance make sure someone can support you, or hold on to another fixed object like a wall or broomstick.
4. Keep children and pets away from the machine when in use.
5. Don't let the rope clamp or any handles hit the equipment, make sure you absorb the load before it hits the equipment.
6. Make sure the flywheel stops fully before finishing using the equipment.

Safety - Using the motor

1. Read the Sensor & App Instructions.

2. Using the Eccentric boost amplifies the energy of the flywheel in the eccentric phase. Improper use could cause significant injury. Make sure you've had ample warm up and conditioning before attempting to use the motor boost. If this is your first time using the motor boost, always start with a low Eccentric Overload Boost % (eg, 1 - 5%) to get the feeling of what you can handle.

3. Small flywheels can spin very quickly, so it's actually safer to use large flywheels to start with because they spin more slowly. Begin with a 1.0 kg.m2 inertia (large) flywheel at 1 - 5% overload.

4. The use of the motor overload is not suitable for people with injuries, unfit, deconditioned or elderly people. The Exerfly Rack-Fly is still able to be used without using the motor.

5. The Exerfly Rack-Fly uses an automatic wind-in mechanism to get started when using the motor boost.

6. After 5 minutes of inactivity, the motor boost will default to 0%. You can easily increase this back to your desired level in the app, or via the control panel.

Introduction

Overview

The Exerfly Rack-Fly flywheel training equipment is a capable and compact piece of strength training equipment. Great for gym use due to it's compact size and weight, and perfect for traveling athletes and sports teams when access to a gym is not an option. The Exerfly Rack-Fly can be quickly mounted to any rack.

Using your muscles, you accelerate and decelerate flywheels on the Exerfly equipment to stimulate your muscles and nervous system, resulting in increased strength and muscle activation over time.

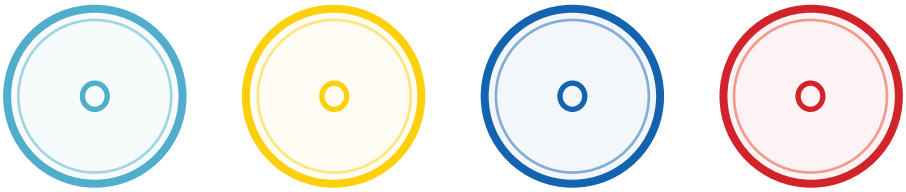
Flywheels

The flywheels are available in four sizes - extra small, small, medium and large. Small flywheels are easier to move and spin faster, whereas large flywheels are harder to move and spin slower but have more energy and momentum and are more difficult to stop. You can stack the flywheels to make your workouts more difficult as you progress.

If you are first starting out with flywheel training, then start with smaller flywheels while you become familiar with the movements. Although, larger muscles like the leg muscles can handle extra resistance with larger flywheels.

Mounting and removing flywheels is easy, just unscrew the end cap and slot a flywheel on to the square shaft. Then screw the end cap on. You can optionally use the end cap tool to tighten or loosen the grip on the flywheels.

Using the small 0.0125kg.m2 flywheel is useful when doing light movements for rehab including shoulder rehab where range can be limited. As with all flywheels, the more effort a user puts into moving the flywheel, the more the flywheel will give back.



Features

Eccentric loading

Your muscles are about 40% stronger in the eccentric phase (sometimes called negative phase) of a movement. This is when your muscles are undergoing lengthening. It's difficult to train your muscles eccentrically with traditional gym equipment because the weights always weigh the same and people tend to let the weights drop with gravity. Often a 2nd person is required to add force to the eccentric movement.

The benefits are eccentric training are well understood, and the Exerfly equipment makes it easy to train your muscles eccentrically. If you can speed up the movement in the concentric phase of a movement, you'll produce a lot of energy in the flywheel, and decelerate in a shorter amount of time, then you'll experience an eccentric overload.

Eccentric overload training is very beneficial but also very fatiguing, so you will likely exhibit muscle soreness over a few days if you are not used to it. This is called delayed onset muscle soreness (DOMS).

Range of exercises

One of the main features of the Exerfly Rack-Fly is it allows a huge range of exercises at different intensities. Because the resistance is variable based on how many flywheels you use and how hard you pull, you can get a range of muscle stimulus to suit professional athletes and teams, or more pedestrian movements and rehab.

Noise reduction

Usage of the Exerfly Rack-Fly is virtually silent, so it's perfect for home or gym use. Additionally, there's no need to constantly change weights, or risk dropping weights and making a lot of noise. Some users may find the flywheels make noise when changing direction, to remedy this make sure the end cap is tightened.

Safety features

At Exerfly, we believe that prevention is key. That's why we've engineered a product with a strong focus on safety and injury prevention that maximizes effort and results.

Continuous motion

Flywheel training provides a constant, smooth resistance for muscles throughout the entire range of movement of an exercise. The motion of pulling a flywheel is incredibly fluid and smooth, with no snap between the concentric and eccentric phases of motion, meaning less risk of injury to the athlete.

Self-managed resistance

Users are able to manage their own resistance load in a safe range of motion and determine their own force output, meaning the resistance is based directly on the expended effort of the athlete. This allows the athlete to warm up at their own pace, then slowly increase their effort while the machine adapts to their movements, as opposed to conventional weight training with static loads unable to adapt and respond to the athlete's needs.

Reduced risk of injury

A recent study of flywheel training shows that adding a weekly eccentric overload squat training to a regular basketball and volleyball exercise routine enhanced lower limb muscle power without triggering patellar tendon complaints. Another study also showed that football players participating in eccentric overload training just 1-2 times a week were significantly lower risk for hamstring injuries.

Constant tension

The constant tension and emphasis in the eccentric phase of the exercise adapts muscles for power and speed, and helps reduce the likelihood injury. Exerfly mimics natural sports movements, meaning the athlete is less likely to injure themselves both on and off the machine.

Safety features

Recovery from injuries

Exerfly's carefully engineered design makes it the perfect tool for recovery. Whether recovering from surgery, when atrophy and loss of muscle strength occurs rapidly, in early rehabilitation and strength training, or in late-stage rehabilitation of musculoskeletal injuries, Flywheel training addresses both strength and power and can be used in most stages of rehabilitation.

Studies show that Eccentric training for injured tendons leads to a reduction in pain, decreased stiffness in the tendon, increased neovascularization, enhanced neuroplasticity, and increased shielding of muscles.

Physio and rehab

Adaptive resistance for recovery

With Exerfly flywheel training, resistance is based on the inertia of the flywheel and the input force of the athlete's expended effort. This means the machine adapts to the needs and capabilities of the individual athlete, whether that be intense, intermediate, or recovery. As a reactive and responsive piece of equipment, Exerfly offers a better form of recovery than static, conventional weights that do not adapt to the individual's performance. It allows the athlete to ease into the exercise at their own pace, lessening or challenging the resistance as needed.

Preserve joint health and prevent injury

Lower body eccentric training using the Exerfly can be performed with a harness. This reduces injury risk by distributing the load evenly across the shoulders and lower back throughout the movement, reducing strain commonly experienced by the lower back in exercises such as weighted squats.

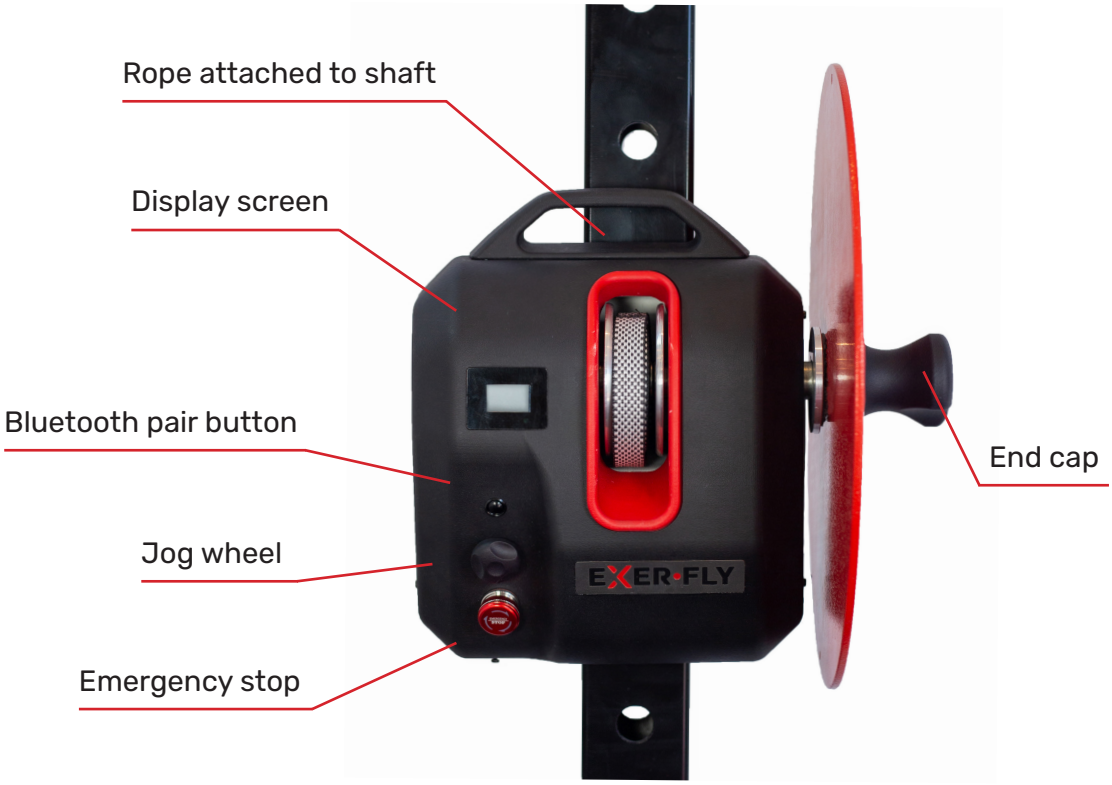
Space efficient

The compact size of the Exerfly also means it is ideal for office or home use, eliminating the need for gyms or large training spaces in the workplace. It is portable and easily maneuverable, fitting neatly into small office spaces without compromising on value.

Rehabilitation after injury

Because of its low-impact nature, Exerfly training can effectively aid rehabilitation after injury. A crucial part of Anterior Cruciate Ligament (ACL) rehabilitation focuses on knee control and landing form, which is best rebuilt through eccentric training. By applying resistance throughout the entire range of movement, the muscle gains strength through this entire range as well, allowing for more force without the heavyweight and stress. For upper body injuries, for example arm injuries, attachments such as the squat harness can be attached so the athlete is not totally restricted by their inability to hold heavy weights.

Product overview



How to use your Exerfly equipment

Now that you have assembled your Exerfly equipment, you need to learn how to use it properly. If at any time you have questions or are unsure about how to use the equipment please book an appointment to talk to a specialist.

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Calendly Support
https://calendly.com/exerfly-support/15min

IMPORTANT!

One of the fundamental ideas around flywheel training is to use your muscles to absorb the force in the downward or winding in phase of a movement. Therefore, make sure you absorb the force when the rope is being wound in so that the rope clamp doesn't hit the Exerfly equipment as this can cause damage to the device.

Attach the rope clamp

The rope clamp attaches to the squat harness, squat belt, hand grips, bars and most other gym accessories. Make sure the shackle on top of the rope clamp is properly closed when using the equipment. The rope clamp tightens when it's under tension and you use your hands to release it and move it to a different position on the rope.

Rope Clamp
How-To Video

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How to use your Exerfly equipment

Selecting flywheels

Each flywheel has a different inertia value. The larger flywheels have higher inertia and take more muscular force to spin and build momentum and again require more muscular force to stop. Smaller flywheels have lower inertia and spin faster.

With the Exerfly equipment you can combine flywheels to give you more inertia, up to a maximum of 10 red flywheels.

As a rule of thumb:

- Small flywheels with inertia of 0.0125 are useful for light rehab movements.
- Medium flywheels are good for starting out and for arm exercises.
- Large flywheels are good for leg exercises. Very strong people find 4 large flywheels challenging in the squats.

To begin with, select a medium flywheel and get used to the movement and feel as it's slightly different to traditional equipment due to the constant force. For more information see the Workout Zones section below.

Workout zones

For beginners or users trying new exercises, you should use small-medium sized flywheels and low intensity to adjust to the feeling of the exercise. It's easier to correct technique at lower speeds and intensity with smaller flywheels, and then increase the flywheel inertia and intensity.

Follow these as guides for working out to get the most out of your exercise regime.

Warm up	Low to medium inertia with low intensity
Improving technique	Medium inertia with low intensity
Power	Low inertia with max intensity
Strength	High inertia with medium/high intensity
Eccentric overload	See 'Other movements' below
Isometric	See 'Other movements' below

How to use your Exerfly equipment

Arm and shoulder workouts

1. Attach the rope clamp shackle to the stirrup handle or other attachment.
2. Adjust the rope clamp along the rope to reach a desired length so that the rope becomes tight at the end of an exercise movement.
3. Start to spin the flywheel left or right with your hand so it winds in the rope. Next, accelerate the flywheel by starting to move your arms in the exercise. Keep moving with the exercise and go with the movement of the flywheel to avoid any rests in between.

You should reach your desired training intensity after 2-4 reps of spinning the flywheel, and complete 6-12 reps in your set according to your training methods.

To stop the flywheel, decelerate the flywheel by slowing down your movement and stopping at the end of the movement. Slowly return to the start position and make sure the flywheel stops completely. Detach the rope clamp if necessary, step off the equipment and have a rest before the next exercise.

Exercise Example Video

Recording workout stats/metrics

If your Exerfly equipment features a sensor, you can get workout statistics for each rep and exercise to display on a mobile device or computer so you can track your progress over time. Please see the Exerfly Sensor manual to connect the sensor to your device.

Online Rack-Mount Sensor Manual

How to use your Exerfly equipment

Other movements

One of the benefits of using Exerfly equipment is that the range of exercises you can do is almost unlimited. Additionally, you can achieve other techniques such as isometric exercises and eccentric overload.

Isometric

Used to maintain strength. The muscle doesn't move much in these exercises. Use a partner to hold the flywheel from moving while you exert maximum pull on the rope.

Exercise
Example Video

Eccentric overload

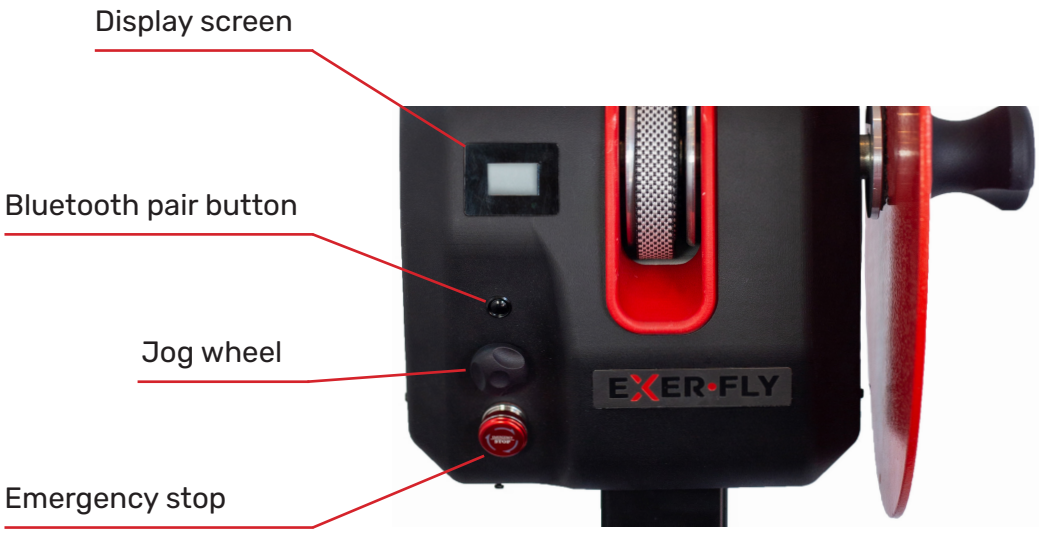
In the eccentric phase of a movement, your muscles are up to 40% stronger so being able to overload your muscles in this phase can bring benefits to your strength and rehab that are difficult or impossible to achieve with traditional equipment.
Use a partner or your legs to assist in speeding up the concentric phase of a movement so the corresponding eccentric phase is overloaded.

Exercise
Example Video

How to use your Exerfly equipment

Control panel

If your Exerfly Rack-fly came with the motorized technology, you can select how much eccentric overload to include in your reps.



Bluetooth pair button

Push the black button to pair with Bluetooth, or reset the unit so it disconnects a user and allows another user to connect to Bluetooth.

Jog wheel

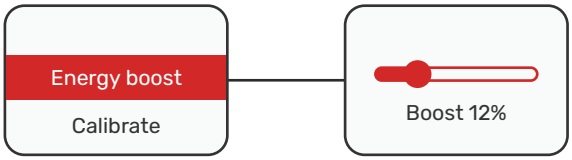
Use the jog wheel to scroll through the menu items and push to select an item.

Emergency stop button

Press to cut the motor. A light on the button stays on when the button is pressed down.

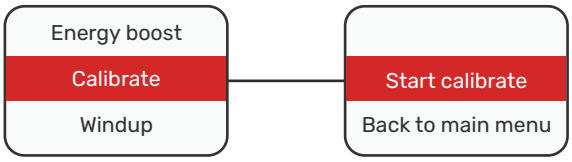
Note: Once the button is pressed, it stays pressed down and the motor will not work until you twist the button to release it. If the motor does not function, check if the stop button is pressed down.

Equipment menu options



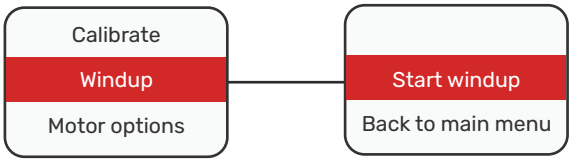
Energy Boost

Adjust the energy boost of the motor output in the eccentric phase. After 5 minutes of inactivity, the motor boost will set to 0% boost.



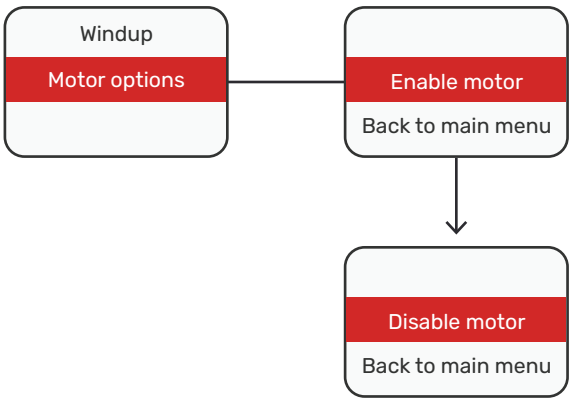
Calibrate

When holding the rope out straight, click the calibrate option to set the zero angle of the shaft so it knows where the concentric and eccentric phases start.



Windup

Start the Windup of the motor, it will wind in the rope. This is optional and the motorized boost will still work if the motor is enabled.



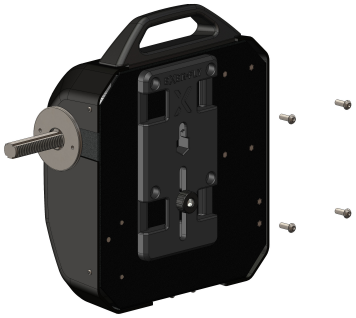
Motor Options

Enable the motor, so the motor will work. Disable the motor to prevent the motor working.

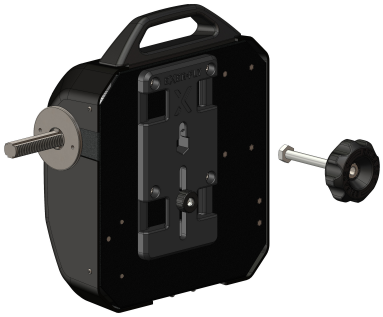
How to use the Rack Attach Plate

1. Place the nut in the back of the Rack Attach Plate like so. The nut should freely slide up and down the slot.

2. Place the Rack Attach Plate on to the back of the Rack-Fly, and screw the 4 button head screw in to the back. Screw the small knob into the back of the nut. The small knob can be tightened to hold the nut in place.

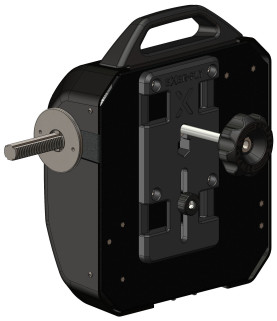


3. You will have 3 sizes of hex bolt for different sized squat racks. Choose the hex bolt which fits yours. Screw the large knob on to the end of the hex bolt.

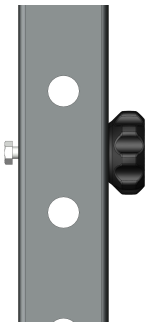


How to use the Rack Attach Plate

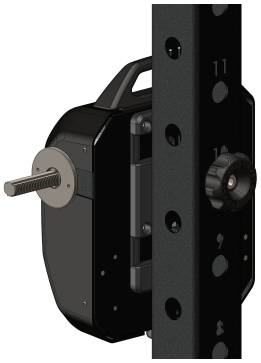
4 Here you can see how the hex bolt slots into the back of the Rack Attach Plate. Slide it up to lock it in place. Move the small knob up or down so both the hex bolt and small knob can fit in two holes on your squat rack. This prevents the Rack-Fly from tipping to one side.



5 Place the hex bolt/large knob combo through the back of your Squat Rack hole so the head of the bolt protrudes from the front.



6 Place the Rack-Fly on to the head of the hex bolt, adjust the small knob for distance to the lower squat rack hole and tighten the large knob.



Watch a step-by-step video tutorial:

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Accessories

Stirrup handle

The stirrup handle is a hand grip which can be attached to the rope clamp or carabiner for single arm workouts.

Stirrup Handle Example Video

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Carabiner

Need to attach hand grip or other accessories when doing rotational or horizontal exercises, and when not using the rope clamp.

Long bar

The optional long bar can be used to assist with rotational movements and can be attached to the rope clamp or carabiner.

Long Bar Example Video

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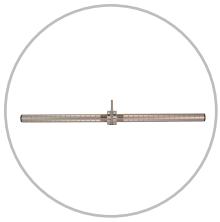
Additional accessories

Scan the QR below and visit the website to view our full range of accessories.





Further accessories such as tablets and carry cases are available from our online shop.
To browse our selection of these and other accessories, please scan the QR below.

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exerflysport.com

Exercise tutorials

Hamstring curl

Set the Rack-Fly to the lowest position on the upright. Lying flat on the ground, engage the hamstring and lift the foot.

Glute kickback

Stand in front of the upright and brace with both hands. Raise the leg behind you, keeping both legs straight.

Kettle bell swing

Stand in a squat position, hold the tricep rope and pull from behind up to eye level.

Bear crawls

Using the squat harness. Drive through the feet and rock forward, shifting the weight onto the hands.

Single arm pull

Set the Rack-Fly to elbow height. Use the stirrup handle and pull the elbow into the side of the body.

For more exercise tutorials and how-to videos, visit the **Exerfly YouTube** channel.

YouTube

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Troubleshooting

Q. How do I change the rope?

A. Please see this tutorial. You can also use the other end of the rope if part of it becomes frayed.

Replace rope how-to video:

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Q. Why can't I connect to the app?

A. Please see the App and Sensor Guide. But briefly, make sure you have Bluetooth enabled and also location enabled for the app.

Q. The motor won't engage.

A. Check the emergency stop button is not pressed down. Twist to release it. Make sure 'Enable Motor' has been selected. Check the motor boost % is not zero.

For any questions about the app or the equipment, please get in touch with us at: **support@exerflysport.com**

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Or make an appointment via Calendly:
https://calendly.com/exerfly-support/15min

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Maintenance

Bearings

These are ceramic bearings so require little maintenance but a spray of WD-40/CRC or similar every 6 months can help with smooth running.

Rope / webbing

The rope is very strong and wear resistant, but over a long period of time you may see wear and tear. To replace the rope, follow the QR link to the video tutorial.

Replace Rope Example Video

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Rope clamp

If after repeated use the rope clamp doesn't grip as much, use a few drops of acetone on the rubber surface to restore it.

Warranty

Exceptions

Parts through normal wear and tear such as belts, webbing, non-slip surface and other parts subject to wear. Defects in coatings. Additionally, where the customer has misused or abused the product, repair or service was not done in accordance with Exerfly Sport instructions, OEM products were not used, use of the product continued after the defect was first noticed.

Support

Exerfly Sport technicians will attempt to rectify the defect by any methods available, such as Phone, Email, Instant Messaging, video, service center and if needed, will ship a replacement or replacement part, subject to availability within a reasonable time after the buyer has contacted Exerfly Sport.

Transportation

Customer will ship or bring the product to/from a local service centre at their expense and risk.

Limitation of liability

The customer is not entitled to compensation for personal injury or property damage.

2 Years

Warranty from the date of purchase

30 Days

Money-back guarantee

Free

Shipping and taxes

Statement of compliance

Exerfly Sport Limited hereby confirms that the following product manufactured by Exerfly Sport Limited are in compliance with EU Directives.

2014/53/EU on Radio Equipment

2014/30/EU on electromagnetic compatibility

2011/65/EU on Restriction of hazardous substances in electrical and electronic equipment

2014/35/EU on Low Voltage

2006/42/EC on Machinery

Description of goods:

Exerfly Platform

Exerfly Platform with motor option

Exerfly Ultimate

Exerfly Ultimate with motor option

Exerfly Portable

Exerfly Rack-Fly

Exerfly Rack-Fly with motor option

All Exerfly Accessories.

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