

kPulley2 Manual

Version 1.7, September 2020





PERSONAL INJURIES MAY OCCUR IF THESE PRECAUTIONS ARE NOT OBSERVED

Please read and understand the user manual and warning labels prior to use.

Inspect the machine including the drive belt before use. Damaged or worn parts and warning labels **must** be replaced. See user manual for how to change and cut the drive belt. Do not modify the machine or repair it with non OEM parts.

The kPulley2 can deliver a supramaximal* workload. Do not exercise at an intensity which is above your physical capacity.

Work out at a submaximal** intensity until you are familiar with the equipment.

Do not let the pulley block hit the kPulley height adjuster during use, absorb the eccentric load **before** it hits the device.

Make sure the pulley block snap shackle is properly closed and connected before you start training.

If you feel dizzy or experience pain, stop exercising immediately.

Exxentric takes no responsibility for any injuries that may occur while using this product.

Keep away from moving and/or rotating parts.

Use shoes to avoid friction burns from spinning flywheel or drive belt during use. Never stop a spinning flywheel with your bare hand as it may cause friction burns.

Flywheels may get slippery when wet. When lifting flywheels, use a secure two-handed grip.

This machine and accessories are intended for strength training only. Do not use for other means.

Exercising at maximum intensity may cause temporary staggering and uncontrollable body movements due to fatigue. Exercise caution to prevent falling.

The device is not suitable for children or animals.

*) Supramaximal means higher than maximal. This means higher loads than your muscle can produce themselves in a shortening (concentric) action.

**) Submaximal means below maximal. In this case, we would recommend below 75% of max intensity.

CONTENTS

This Manual covers a description of the kPulley2, a Multi-Exercise Flywheel Device, a guide to its use, and how to maintain it.

Always check exxentric.com/support for latest info and manuals.

Specifications	6
kPulley2 Overview	7
Toolkit Overview	8
Wall Mount Instructions	9
Attaching the Drive Belt	10
Introduction	11
Features	12
Usage	13
kPulley2 Maintenance	15
Flywheel Workout Zones	17
kMeter	18
kPulley2 Accessories	19
Support	20
Warranty	21

Caution!

Like any exercise program, it is important that users are capable of performing exercises on this exercise equipment and have verified this with their personal physician.

SPECIFICATIONS

	kPulley2
Minimum dimensions (bounding box) -Assembled	
Width(base)	36.5 cm (14.4 inches) (incl. foot protection)
Width on wall	5 cm (2 inches)
Depth	38.5 cm (15.2 inches) (incl foot protection)
Height	197 cm (77.6 inches)
Mounting holes size	7 mm (0.3 inches)
Materials	
Chassis	steel
Beam	steel
Foot protection	steel
Flywheel	steel
Color	Midnight Blue, Jet Black, Anodic Brown
Features	
Working height	40 cm - 197 cm (15.7 - 77.6 inches)
Max. range	1.5 m (59 inches)
kMeter II	built-in
Quick change flywheel	yes
Inertia range kgm ²	0.005-0.140
Inertia factor*	x28
Flywheel options (kgm²)	
XS - 0.005	yes
S - 0.010	yes
M - 0.025	yes
L - 0.050	yes
XL - 0.070	yes
Flywheel generation	kBox4
Weight of machine	11 kg (24 lbs)

*) inertia factor - highest possible inertia divided with the lowest possible inertia.

KPULLEY2 OVERVIEW



1. Shaft and kMeter II cover
2. kMeter II (underneath the shaft cover)
3. Flywheel knob
4. Foot protection
5. Height adjustment pulley
6. Belt stop
7. Small pulley block
8. kPulley2 beam
9. kPulley2 drive belt

Included with the kPulley2:

- kPulley2 base unit with beam and small pulley block
- kMeter II built-in
- Drive belt
- Tool kit
- kPulley2 manual
- kMeter II quick start guide

Color of parts may have slight variations depending on batch.

TOOL KIT OVERVIEW



Tool bag

Contains everything listed below



Wrench 13mm

For mounting the beam to the base unit



**M8x65 bolts
& M8 nuts**

For mounting the beam to the base unit



**M6x16 screws
& 4mm hex key**

For securing the foot protection. 4 mm hex key is also used to remove the shaft cover



3 mm hex key

For tightening flange position screws/shaft position screws and to remove lock pin.



Lock pin

For locking the drive belt to the shaft (one spare if the other one is lost)

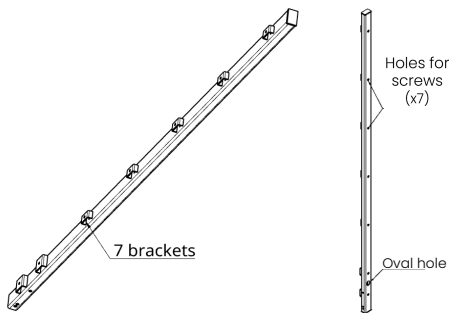
WALL MOUNT INSTRUCTIONS

Screws for mounting not included, use the appropriate screws for your wall specifications. Exxentric takes no responsibility for the mounting of this product and recommends seeking assistance from a professional.

Unpacking and assembly video can be found here:
www.exxentric.com/support/manuals

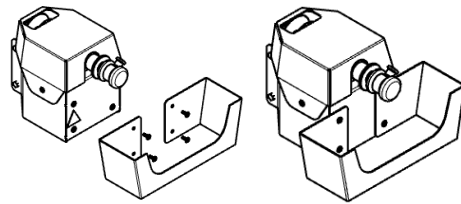
Step 1

Attach the kPulley2 beam to the wall with seven screws and **the oval hole forward and down**. If you want the kPulley2 to stand on the floor, place the beam on the floor when attaching to the wall. To attach the beam to a pole or a rack, use the brackets on the back of the beam and strong belts with cam locks.



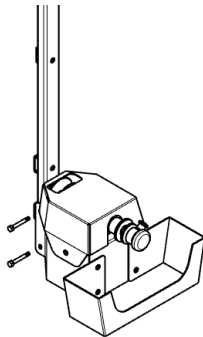
Step 2

Attach the foot protection using the four M6x16 screws and the 4mm hex key found in the tool bag.



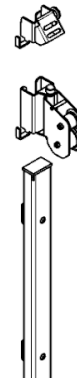
Step 3

Attach the kPulley2 base unit & foot protection to the kPulley2 beam with the two M8x65 bolts and the two M8 lock nuts. Use the two 13mm wrenches.



Step 4

Slide on the height adjustment pulley and then the belt stop.



ATTACHING THE DRIVE BELT

Step 1

Pull out the drive belt, the Exxentric logo should face the beam as seen in the second image below.



Step 2

Keep the logo of the drive belt facing the beam. Pull the drive belt behind the bottom wheel of the height adjustment pulley, over the bottom wheel and then horizontally outwards from the beam.



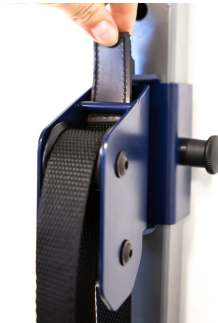
Step 3

Take the small pulley block, pull the drive belt around the black wheel and then back towards the height adjustment pulley.



Step 4

Pull the drive belt over the upper plastic wheel, under the metal rod and then up towards the belt stop.



Step 5

Pull the drive belt in through the upper slot of the belt stop and then out through the lower slot.



Step 6

Put the magnetic piece of the drive belt on the beam and start training!



INTRODUCTION

Setting up the kPulley2

The kPulley2 must be firmly fixed to a wall or column by being screwed to the wall. Use the designated (round) holes in the center of the beam or fix using a strong belt in the bent metal pieces on the back of the beam.

Foot Protection

The foot protection must be attached to the kPulley2. This is required to protect the user from injury.



The Flywheel



We offer five different flywheels with inertia: 0.005, 0.010, 0.025, 0.050 and 0.070 kgm². All flywheels from the kBox4 generation are compatible with the kPulley2. The maximum capacity the kPulley2 can hold at one time is two. This allows for a range of inertia between 0.005 and 0.140 kgm².

Do not try to mount more than the maximum capacity of flywheels.

Experimentation will determine which configuration is required for your level of training. Mounting or changing flywheels is done by releasing the flywheel knob by pulling the pull pin knob on its side, removing the flywheel knob, changing flywheel(s) and securing them by pushing the flywheel knob back on until it makes a clicking noise.

Tip! If the black pull pin knob is hard to pull out, you can push the flywheel knob in whilst pulling the black pull pin knob out.



FEATURES

Principle of the kPulley2

The kPulley2 is a 'multi-exercise flywheel device'. Which muscle is being exercised depends on which exercise is being performed.

The principle is that through muscle force you accelerate and decelerate a flywheel (or flywheels). Exercises with high intensity and high forces stimulate muscles to increase in size and the nervous system to increase activation of the muscles. These effects together increase strength over time if the exercise is repeated regularly.

Resistance

The resistance is variable and unlimited.

The flywheel has a specified inertia and there is no upper limit to how much kinetic energy you can produce in the flywheel motion. You can think of the flywheel as a weight that weighs more if you put more effort into lifting it. Resistance is variable so if you pull less, the flywheel will resist less.

Every repetition in a set can be maximal instead of only the last one, which is the case with traditional weights. This results in a higher training efficiency, earlier onset of strength increase and also hypertrophy.

The potentially higher exertion on the kPulley2 may lead to a need for longer resting periods between sessions to fully recover.

Eccentric loading

The kPulley2 provides for increased eccentric workloads.

The skeletal muscles can produce more force in the eccentric, or negative phase. This is difficult to take advantage of with traditional weights, which always weigh the same.

If you accelerate the flywheel during the concentric, or lifting phase and then decelerate in a shorter amount of time, you will have to produce a higher eccentric force. This will be similar to lifting weights that would normally be too heavy unless assisted by a training partner, but executing the eccentric (lengthening) phase by yourself. Check out the Exxentric Online Academy for more information on eccentric overload.

<https://academy.exxentric.com>

USAGE

Foot placement

Stand in front of the kPulley2 on the floor. Depending on which exercise you wish to perform and the range of motion needed, position yourself closer or further away from the device to get to an appropriate range of motion.

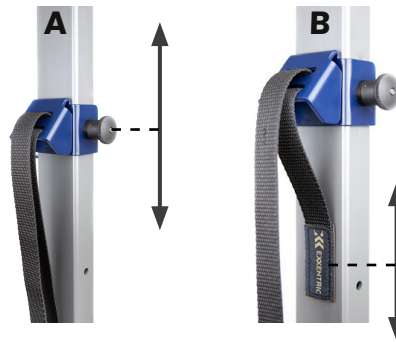
Range of motion



(0.6m)

This can be set by by changing your positioning or by changing the length of the drive belt:

- A) Adjusting the height of the sliding belt stop or,
- B) Adjusting the amount of excess belt coming out of the belt stop.



Setting the height

You can select at what height the belt should come out from the kPulley2.

For horizontal actions, a perpendicular angle to the kPulley / wall is recommended. Pull the knob to release the lock. Hold the sliding part in place and adjust the height, let go of the knob and let it click-in and lock the position.



Exercising

Pull gently for 1-2 repetitions to assess that you have the correct inertia and positioning and then increase to the desired exercise intensity.

For beginners and rehab patients doing lower body exercises, **the top position should be just before all active joints are fully extended.** For experienced users, there can be some slack in the top.

Overload

Methods to overload the eccentric phase:

1. Use a stronger movement pattern or your body weight to accelerate in CON and absorb with the muscle you want to overload in ECC.
2. Partial ROM in ECC. By either absorbing all energy early or late in ECC, this part of the ROM is overloaded.
3. Have a spotter adding energy in CON to subsequently overload ECC for the user.

kPulley2 Attachment Kit

To attach the kPulley2 to a pole or a rack, use the brackets on the back of the beam and our kPulley2 attachment kit.

Make sure to use at least three straps; one at the top, one at the bottom and one in the middle of the beam.

Attention! Do not leave or permanently mount kPulley2 outside.



Examples:



KPULLEY2 MAINTENANCE

Drive Belt cautions

The drive belt and its attachment to the shaft is the most sensitive part of the kPulley2. **Be attentive to wear and check regularly.**

When the belt shows signs of wear and tear, trim the end by cutting off the damaged area or replace it with an original spare Drive Belt.

For recommendations on how to prolong the lifespan of your drive belt, please refer to our videos on best practices, found here:

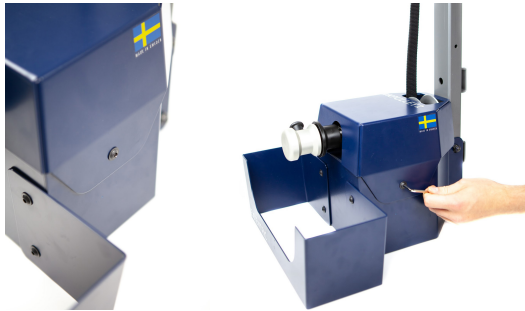
www.exxentric.com/support/manuals/

Trimming a worn Drive Belt

When the drive belt shows signs of wear and tear, trim the end by cutting off the damaged area or replace it with an original spare drive belt.

If damage occurs close to the shaft it is possible to cut off the damaged end and reattach the new end. Procedure:

1. Remove the shaft cover, use 4 mm hex key from the tool kit.



2. Hang the shaft cover on the height adjustment pulley hook.



- Unwind all of the belt from the shaft and use the 3 mm hex key to push the belt through the shaft and remove the lock pin.



- Cut off the damaged belt. Harden the edge with a lighter.



- Pull the belt through the shaft from the side with the narrower groove. Fold the belt around lock pin and pull the belt and pin into the wider groove in the shaft.



- The belt automatically locks into the groove when you pull it firmly. Make sure you can see the edge of the band when it's in place in the shaft (highlighted in third photo above).
- Put the shaft cover back on and start training.

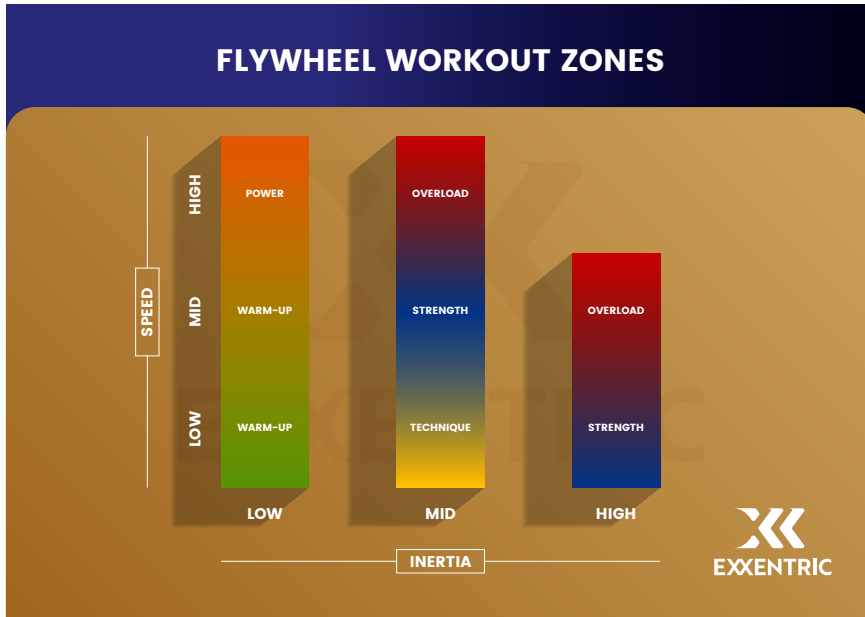
Note: If the lock pin is dropped inside the chassis, there is a spare one in the tool kit. If both are lost, remove the chassis from the beam and pick them up.

Replace the Drive Belt completely

Remove the belt from the shaft as above, pull it out through the shaft and through the pulley block and the sliding pulley. Disconnect the drive belt from the belt stop.

Re-attach the new drive belt in the belt stop and reverse the procedure.

FLYWHEEL WORKOUT ZONES



Warm-up

Low intensity and low to medium inertia

Power

Max intensity at low inertia

Technique

Medium inertia and low intensity

Strength

Medium to high intensity at medium to high inertia

Higher inertia

More eccentric overload

We want to stress that new exercises and users should be taught using MEDIUM inertia and LOW INTENSITY.

Since this will be slow, controlled and submaximal forces, it is easier to correct and less risk for injury or technical error. When the technique is correct, increase the intensity and/or lower the inertia for higher speed and more power.

KMETER

Overview

The kMeter Module allows you to connect your smartphone or tablet with your kPulley2 and get live training feedback.

The kPulley2 has the kMeter II built-in as standard. It is powered with two AA batteries and located under the base unit cover plate.

SmartCoach

The kMeter module (wired) works with the SmartCoach system but to connect the SmartCoach to the kMeter II you need a special version of kMeter II with a wire and this needs to be specified when you order your kPulley2 (or kBox) system.

How it works

The kMeter Module sends wireless data over Bluetooth to the corresponding iOS or Android app.

The kMeter App uses rotational data and user-input of inertia to calculate and present the power in real-time and set a summary containing a wide range of metrics. Users can also input training data after a completed set. All data can be stored in an in-app database for later viewing in the app or to be exported to Excel.

kMeter II has a sample rate of 10.000 Hz and receives 64 impulses per revolution of the flywheel. This means it can accurately sample data up to rotational speeds of 155 revolutions/second.

Manual

For info on how to connect and operate the kMeter module and app, see the kMeter manual.

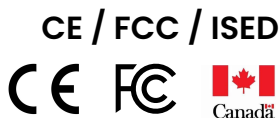
For information about the metrics and their precision, check:

www.exxentric.com/kmeter-manual



Download app

“Exxentric kMeter” in App Store and Google Play.



The kMeter II (art. no. 20002) is CE-marked according to 2014/53/EU Radio Equipment Directive, and FCC and ISED-certified.

More kMeter info

www.exxentric.com/kmeter

KPULLEY2 ACCESSORIES

Flywheel	0.005, 0.010, 0.025, 0.050 and 0.070 kgm ²
kMeter II feedback system	If not built-in from factory
kGrips	Two single grips
kBar	Ultra light bar
Exxentric Ankle Cuff	2 single pieces
Exxentric Rotational Sling	
Exxentric Hip Belt	Normal & Small
Exxentric Harness	XXS, XS, S, M, L, XL, XXL
Exxentric Head Harness	One size
Exxentric Single-Turn Buckle	
Exxentric Accessory Rack	Floor model or wall-mounted
Exxentric Flywheel bag	
Spare Drive Belts	

Accessories for other devices:

Extension Strap for overhead movements, Foot block Short for kBox4 Lite / Active, Foot block Long (for kBox4 Pro), Elevation blocks.

Visit [exxentric.com](https://www.exxentric.com) for more info on products and accessories!

SUPPORT

More information

For downloading latest manuals, self-help instructions and tutorials.

www.exxentric.com/support

For maintenance procedures or to continue reading this manual, chapter "MAINTENANCE".

www.exxentric.com/maintenance

Blog posts covering flywheel science and physiology can be found at:

www.exxentric.com/news

For demos, getting started tutorials, the kMeter intro course, and more, check out:

<https://academy.exxentric.com>

(Register with your email to use this free service)

Apps:



Exxentric kMeter

For iOS and Android. Shows real-time data from the kMeter module.

For more information, see the previous kMeter section.



Flywheel Training (iOS only)

Inspirational guide for new users.

Get access to tutorials, create a program and get started!

Need assistance?

Send an email to: support@exxentric.com

or appsupport@exxentric.com (for problems concerning our software or apps)

Emails should include:

1. Serial number, found on the left back side of the chassis.
2. Description of the encountered issue.
3. Preferably attach an image/video for illustration purposes.

WARRANTY

Valid from 03-10-2013

- 1) **THE TERMS AND CONDITIONS' APPLICABILITY.** This Agreement applies only to the sale of products in new condition in the EU or in a market where a certified dealer is established. For the individual consumer, warranty runs from the original delivery date for 12 months in parallel with a three-year legal guarantee. For trade companies, warranty runs for 12 months from the original delivery date and with the conditions set out in this agreement.
- 2) **PARTIES OBLIGATIONS.** Exxentric undertake - with the exception of the cases specified in paragraph 5 below - in case of malfunction or damage to the product to replace defective parts. More extensive repairs are to be carried out by an Exxentric designated service center.
- 3) **WHAT CONSTITUTES AN ERROR.** Errors are professionally determined deviations from the normal standard that manifests itself during the period specified in paragraph 1. The product is considered defective if it differs in the manner stated above and is not, according to Exxentric, likely to have been defected due to accident or circumstances that are otherwise attributable to the buyer.
- 4) **TROUBLESHOOTING.** Rectification of defects or delivery of replacement parts will take place within a reasonable time after the buyer notified the error and, if so requested by Exxentric, made the product available to the action of a designated service centre. What is considered a reasonable time is determined by the buyer's need for the product, the nature and scope of the error, difficulties in determining the error and access to spare parts and engineering capacity.
- 5) **LIMITATION OF SELLER / EXXENTRIC'S COMMITMENT.** Exxentric's responsibility does not cover the product's consumable parts and wear parts such as for example drive belts, extension straps, rubber protectors for the pulley block, snap hooks, rubber mats and pads. Also, the warranty does not cover what is considered as normal wear and tear, normal corrosion, or defects in paint or other coatings. Also, the buyer may not claim rectification for deficiencies which the seller can show were caused by for example:
 - that repair or service was done elsewhere than at an authorized Exxentric service center
 - that non OEM components were used
 - that use of the product continued after the defect was first noticed
 - that the product has been used in ways for which it is not designed or sized
 - that the product has been abused
 - that the product has not been used with normal care
 - that the care regulations as per existing instructions have not been carefully observed.
- 6) **TRANSPORT SAFETY AND TRANSPORTATION EXPENSE.** For repair of extensive defects, the purchaser shall bring the product to a designated service center. Buyer shall, after the defect has been remedied, pick up the product from the seller or the designated service center. The product can also be dispatched by the buyer to the seller or to the designated service center. Such transportation shall be at the buyer's sole risk and expense. Replacement parts which the buyer can be expected to replace on his/her own are delivered free of charge to the buyer.
- 7) **LIMITATIONS OF LIABILITY.** For the individual consumer, the limitation of liability as stated in the current applicable Consumer sales rules applies. The buyer is therefore not entitled to compensation beyond what is covered under (2). For commercial customers, Exxentric's liability is limited to what is stated in this agreement. The buyer, therefore, is not entitled to compensation for economic damages beyond the terms specified above, ie not for personal injury or property damage. Buyer is reminded once again the importance of the product being handled with care and in accordance with the operating manual's instructions!

DISPUTES. Disputes concerning the interpretation or application of this Warranty Agreement shall in the first instance be resolved by agreement between the parties. If such an agreement can not be reached, the dispute shall be settled finally by arbitration at the Stockholm Chamber of Commerce Arbitration Institute (the Institute). The Rules for Expedited Arbitrations shall apply unless the Institute with regard to the case, the amount in dispute and other circumstances, determines the rules of the Stockholm Chamber of Commerce Arbitration Institute shall apply to proceedings. In the latter case, the Institute shall also decide whether the arbitral tribunal shall be composed of one or three arbitrators.



Exxentric AB - Karlsbodavägen 39, 168 67 Bromma, SWEDEN
info@exxentric.com - www.exxentric.com.



[/go_exxentric](#)



[/go_exxentric](#)



[/go.exxentric](#)

