# **SPINPOWER STUDIO CRANK**OWNER'S MANUAL



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## THE SPINPOWER® STUDIO CRANK

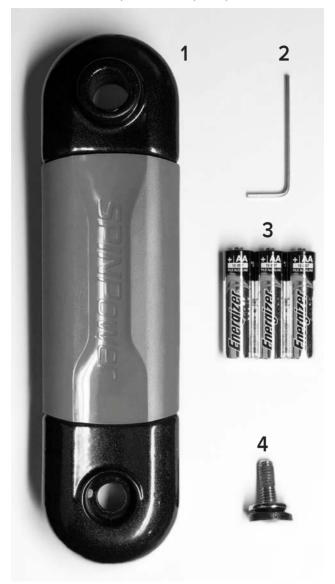
Thank you for purchasing the SPINPower® Studio Crank. Power measurement is a key component of the SPINPower® program that was developed by the leader of the indoor cycling world: Spinning®. This crank will measure a rider's effort and is designed to be compatible with Bluetooth and ANT+ devices to provide a rider with real (and not estimated) power measurement. The crank is also compatible with many popular cycling apps and most leaderboard systems.

This owner's manual will explain all of the key features of this crank as well as take you through each step of installing the crank onto your commercial Spinner® bike. Be sure to log on to spinning.com for all of the latest updates and information about SPINPower® and the Spinning® program.



### WHAT'S INSIDE

- 1. SPINPower® Studio Crank
- 2. 3mm allen wrench (for the battery compartment)
- 3. 3 AA batteries
- 4. 8mm crank bolt (NOT for the pedal)



#### Tools Needed to Install the SPINPower® Crank

- 1. Spinning® or Park CWP-7 crank removal tool (not included).
- 2. Corresponding wrenches to fit the crank removal tool.
- 3. 8mm Allen torque wrench for the crank and pedal bolt.
- 4. 3mm Allen wrench for the battery door (included).
- 5. White lithium grease or light oil.

### **FEATURES**

#### General

Proprietary oversized steel crank design with Morse Taper threadless connections for both the pedal and crank.

Proprietary battery configuration with 3 AA batteries and energy-saving firmware for longer time between battery changes (battery life depends upon usage).

Single sliding battery door access for ease of use and security.

Dual mode design allows for compatibility with both ANT+ and Bluetooth devices.

Powder coated finish for durability.

#### **Specifications**

Compatible only with Spinning® branded bikes. More specifically, compatible with all commercial Spinner® bikes manufactured by Precor. Also compatible with some previous versions of Spinner® bikes that featrure a Morse Taper connection to the crank and pedals.

Powered by 3 AA batteries.

Compatible with ANT+ (Studio SpinPower Computer) and Bluetooth Smart devices (smart phones, tablets, smart TVs).

D powermeter technology (patent pending) measures tri-axial strain on your crank arm for accurate, consistent data.

Crank calibration and maintenance is supported by the SPINPower® Crank Connect App which is available in the iOS and Android stores.

Data accuracy: +/- 1% error margin

### INSTALLING THE BATTERIES



1. Use the 3mm allen wrench to remove the single allen bolt on the battery door (as shown).



2. Slide the cover forward (towards the pedal side) as shown to reveal the battery compartment. Note the orientation of the 3 AA batteries.



- 3. Place the batteries as shown with all three positive ends pointing towards the pedal end of the crank.
- 4. Slide the cover back onto the crank and secure it with the screw that was previously removed. The screw should be snug. DO NOT OVER TIGHTEN THE SCREW.

### PAIRING THE CRANK

Your crank is designed to pair with a wide variety of devices that receive signals in either ANT+ or Bluetooth formats. The crank is equipped with a motion sensor that will turn it on while the crank is rotating making an on/off switch unnecessary. Once the crank is rotated it will take a few seconds for the signal to activate your display device.

If you are pairing this for the first time to the Studio SPINPower® computer, we suggest you pair the crank before installing it on your Spinner® bike. The instructions for this pairing can be found in the SPINPower® Studio Computer box and also online at Spinning.com.



Each crank has a unique 5-digit ANT+ identification code so that many cranks can be used in the same room at the same time. It can also be used as a unique identifier when pairing to a display device. Some display devices will show that number when initial pairing occurs. For reference, the 5-digit number is located on the bottom edge of the black plastic housing as shown. In the photo above, the ANT+ ID is 64560. Your number will most likely be different from that. Also take note of the serial number of your crank that has been etched on the back side of the crank underneath the pedal connection.

# REMOVING YOUR EXISTING CRANK

You may need to remove your existing crank before installing your new SPINPower® crank. To do so, you need an 8mm allen wrench as well as a heavy duty crank removal tool. (SPINTech® tool by Spinning®, Park CWP-7 tool or equivalent – available on Spinning.com).

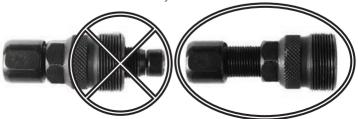


#### Keep the crank from rotating during installation.

Before starting, place the crank in an easily accessible location for both crank and pedal bolts (crank pointed towards the back works well). Then turn the resistance knob clockwise until the flywheel and crank are locked.

#### Remove the pedal first.

- 1. Locate the pedal bolt (on the back side of the crank). Insert the 8mm allen wrench and turn it counter-clockwise for removal.
- 2. Before threading in the crank removal tool (for both the pedal and crank), unthread the center bolt (on the tool) so that the tip is pulled back inside the body (as shown). Your tool may differ, but unscrew that main bolt until it clears the body as shown.

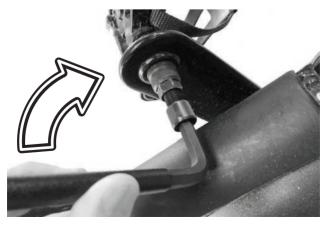


# REMOVING YOUR EXISTING CRANK (continued)

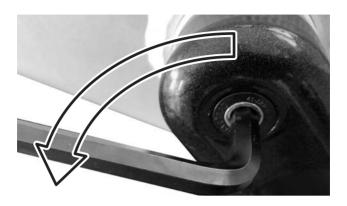


(Removing the pedal, continued)

- 3. Once the tool is ready, thread the body of the crank removal tool into the fine threads of the crank. It is VERY IMPORTANT that this tool is threaded into the crank in a straight manner. Do not cross-thread this tool and make sure to turn the tool into the crank by hand for the first few threads. Once confirmed that the tool is in straight, proceed to use a wrench to tighten the tool so that it is completely threaded into the crank.
- 4. Once the tool is fully threaded into the crank, use a wrench to turn the removal bolt clockwise into the crank. It might take a few turns that might require heavy force. The center of that tool will "push" the pedal out.



# REMOVING YOUR EXISTING CRANK (continued)



#### Now it's time to remove the crank.

1. Use the 8mm allen wrench to remove the center crank bolt by turning it counter-clockwise.

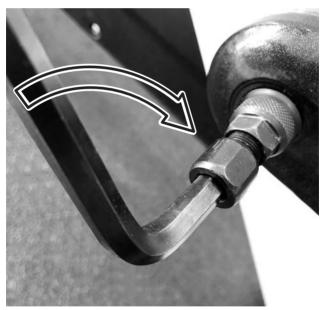


2. The process for removing the crank is exactly like removing the pedal (prevously outlined). Before threading in the crank removal tool, unthread the center bolt (on the tool) so that the tip is recessed (see diagram on page 9). Once set, thread the body of the crank removal tool into the fine threads of the crank. It is VERY IMPORTANT that this tool is threaded into the crank in a straight manner. Do not cross-thread this tool.

# REMOVING YOUR EXISTING CRANK (continued)



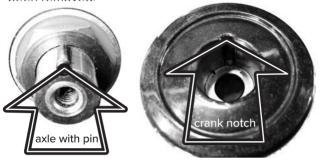
3. Once started by hand, use a wrench and turn it clockwise to thread the tool completely into the crank.



4. Once the tool is fully threaded into the crank, use a wrench to turn the removal bolt clockwise into the crank. It might take a few turns that might require heavy force. The center of that tool will engage with the bottom bracket axle and will allow the tool and crank to "pull" away from the bottom bracket axle. Note that it is easiest to unthread the tool from the crank (with a wrench) before completely removing the crank.

## INSTALLING THE SPINPOWER® STUDIO CRANK

At this point in the process, the "stock" crank has been removed



#### Prepare the bottom bracket axle.

Note that the exposed bottom bracket axle has a keyway with a "floating" pin installed on the axle. That pin may have come out with the crank and if so, place it back in the slot on the bottom bracket axle (as shown).



#### Install the crank.

1. Locate the notch on the crank hole and line it up to the pin on the bottom backet. For best results, add a small amount of lithium grease to the bottom bracket axle. Push the crank onto the axle in the aligned position.



2. Once the crank is on, hand-thread the 8mm bolt clockwise onto the axle. Now use an 8mm torque wrench to tighten the bolt to 35-40 ft-lbs (47-57 Nm).

#### Do not overtighten the bolt.

# INSTALLING THE SPINPOWER® STUDIO CRANK (continued)



3. Once the crank has been tighened it is time to install the pedal. Locate the 8mm pedal bolt and hand thread it into the pocket on the back of the crank. Now use an 8mm torque wrench and tigthen the bolt to 35-40 ft-lbs (47-57 Nm). Do not overtighten the bolt.

# CALIBRATING THE SPINPOWER® CRANK

**After installation** of the crank it must be calibrated using the SPINPower® Crank Connect App (available for Android and Apple iOS) to ensure accurate power measurement. The app also contains tools to name the crank, check battery life and install updated firmware (as needed). Download for your specific mobile device and follow the on-screen instructions.

### CARE AND MAINTENANCE

Your SPINPower® Studio crank is designed for accuracy and durability in the commmercial environment. If needed, the crank can be cleaned with a soft cloth. Use a mild diluted solution of Simple Green® or equivalent applied to the cloth. Do not spray any cleaners directly on the crank (or the bike).

Batteries (3- AA) can be easily replaced when needed and the instructions for replacement are at the beginning of this manual. Always use high quality alkaline batteries such as Duracel®, Energizer® or equivalent for optimal performance.

Periodically check the crank, pedal bolts and calibration as part of your regular maintenance for your Spinner® bikes.

## FREQUENTLY ASKED QUESTIONS

#### The power reading on the crank seems to jump around a bit.

The crank is designed to be very accurate in measuring power output. Depending upon the device that is reading the power signal, the power number can appear to jump with variable changes of rider input. Smooth power delivery at a constant level should yield very small fluctuations of power readings. It is normal to see larger fluctuations during "non-smooth" delivery of power (during sprints, standing hills, etc.).

#### I want to ensure that the power reading is accurate.

The best way to ensure accuracy is to "zero calibrate" the crank through the SpinPower® Crank Connect App. When calibrating, make sure to have the cranks in the vertical position with feet out of the pedals.

If I replace the batteries, will I need to pair the computer again? No. The computer has a memory function for pairing.

Can I pair the crank with both Bluetooth® and ANT+ devices? Yes. The crank has "dual mode" functionality.

#### My crank will not pair with the SPINPower® computer.

Make sure that both the computer and crank have fresh high grade batteries. Review the pairing steps provided in the computer manual for pairing.

#### The watts reading seems too high or low:

Use the SpinPower Crank Connect app calibrate the crank.

#### The crank removal tool is difficult to thread into the crank.

Make sure that you have a removal tool that is compatible with the SPINPower® crank. The same tool is used for pedals and it should thread into both. There may be a need to clean those fine threads before threading the tool in. Use caution and do not damage the treads. DO NOT CROSS THREAD THE TOOL INTO THE CRANK

### The crank removal tool is correctly threaded into the crank and it is difficult to remove the crank.

Removing the old crank may take some "elbow grease" as they are pressed on at the factory. Take your time and make sure to use leverage points to turn the wrench. It is normal for the crank to be securely fastenend to the bottom bracket.

#### Can I pair my crank to Zwift® or other apps with power?

Absolutely. As long as your device is capable of reading a Bluetooth® or ANT+ signal.

#### Can I pair my crank to a leaderboard system?

Yes. Most leaderboards work with ANT+ signals through a WASP or other translation device. Consult your leaderboard instructions for details.

### **CERTIFICATION**

#### Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Spinning® could void the user's authority to operate the equipment.

IC: 9896A-PM102 FCC: ZZNPM102 M/N: PIC102

EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC.

#### ANT+

This crank is ANT+ certified



### LIMITATIONS

Your crank should only be used indoors and on a commercial Spinner® bike. Specific Spinner® bike compatibility is listed on page 6 of this manual. Please note that the SPINPower® Studio Crank is designed specifically for commercial Spinner® bikes and should NEVER be used on other brands of indoor cycles or outdoor bicycles of any kind.

# WARRANTY INFORMATION AND CUSTOMER SUPPORT

#### Warranty:

The SPINPower® Studio Crank has a one-year warranty. This warranty excludes batteries, battery replacement and any crank/pedal installation or removal costs. See the next page for specific details.

#### **Customer Support:**

If you are a facility operator and you have any questions about the commercial use of this computer, please contact **Spinning® Technical Support** by phone at **1-800-847-7746**. For all other inquiries, please contact the Mad Dogg Athletics customer service departments, which are listed below:

For customers in North America, South America and Asia Pacific, please contact:

For customers in Europe, the Middle East and Africa, please contact:

#### MAD DOGG ATHLETICS, INC.

2111 Narcissus Court
Venice, CA 90291 U.S.A.
Toll-free: 1.800.847.7746
Dialing outside U.S.:
1.310.823.7008
info@spinning.com

Hours: 6:00 AM-5:00 PM PST

#### MAD DOGG ATHLETICS, EUROPE B.V. Scheldeweg 3. 3144 ES Maassluis

The Netherlands
Phone: +31 6814 77697
infoeurope@spinning.com
Hours: 9:00 AM-5:30 PM CET

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# MAD DOGG ATHLETICS, INC. I IMITED WARRANTY

#### SpinPower® Studio Crank

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#### DISCLAIMER OF WARRANTIES.

#### LIMITATION OF LIABILITY.

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The SpinPower® Studio Crank is not for outdoor use and carries a warranty that is valid for home and commercial use.

US and International Patents Pending.

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MAD DOGG ATHLETICS, INC. 2111 Narcissus Court Venice. CA 90291

Toll-free: 1.800.847.7746

Dialing outside U.S.: 1.310.823.7008

Fax: 1.310.823.7408 www.spinning.com

MAD DOGG ATHLETICS EUROPE B.V.

Scheldeweg 3, 3144 ES Maassluis

The Netherlands

Phone: +31 1059 04508 Fax: +31 (0) 1059 00054

**BATTERIES INSTALL THE** 





















SPINPOWER® CRANK

**INSTALL THE** 



