

CODA® TARANTULA™ COMPETITION AND EXPERT CRANKSETS

CODA CF2 CRANKSET

Congratulations and thanks for your purchase of a CODA crankset. You have invested in componentry which offers light weight, high strength, and stiffness for increased performance. In the case of the Tarantula cranksets, you also have the ability to interchange the spiders, allowing you to use the same crankset for 5 bolt compact mountain chainrings, traditional mountain rings, or a single downhill chainring.

This owner's manual contains important and useful information regarding the proper installation, operation, care, and maintenance of your CODA crankset. Please read and carefully follow these instructions for miles of safe, high performance riding. If you have any questions about the contents of this manual, or about this or any other CODA or Cannondale product, don't hesitate to contact us. See the back page for phone numbers and E-mail contacts.

REQUIRED TOOLS:

8mm Allen wrench

5mm Allen wrench

Loctite 242 (Blue)

Tarantula tool (Cannondale part # 107142)

Cotterless crank remover (Tarantula Expert and CF2 cranksets only)

Bicycle Grease

TARANTULA COMPETITION CRANKS

The CODA Tarantula Competition crankset has CNC milled aluminum arms and is designed to work with a Shimano XTR or similar bottom bracket which uses a splined hollow spindle for increased rigidity and decreased weight. Most bikes including Cannondales will use a 112.5mm XTR bottom bracket. However, some bikes with a 50mm chainline or 34.9mm seat tube may require a 116mm bottom bracket. The CODA chainrings use shifting pins and ramps for better shifting performance and are built to be light weight and durable. The Competition model comes stock with an 8 and 9 speed compatible spider using 94mm bolt circle 7075-T6 aluminum outer and middle rings and a 58mm bolt circle titanium inner ring. Replacement spiders are available from your CODA retailer in the following configurations:

A triple chainring 8 or 9 speed spider for 94mm bolt circle outer and middle compact mountain rings and a 58mm bolt circle inner compact mountain ring. Kit# QCSC9/EBO. This is the spider which comes stock with the CODA Tarantula Competition crank.

A triple chainring 8 speed spider using 110mm bolt circle outer and middle rings and a 74mm bolt circle inner ring. Kit# QCSS/.

A single chainring spider for a 94mm bolt circle downhill chainring or single speed use. Kit# QCSDH/.

TARANTULA EXPERT CRANKS

The CODA Tarantula Expert crankset also has CNC milled aluminum arms but unlike the Tarantula Competition it can be used with any 110mm long standard bottom bracket with tapered square spindle ends. The CODA chainrings use shifting pins and ramps for better shifting performance and are built to be light weight and durable. The Expert model comes stock with an 8 and 9 speed compatible spider using 94mm bolt circle 7075-T6 aluminum outer and middle rings and a 58mm bolt circle titanium inner ring. Replacement spiders are available from your CODA retailer in the following configurations:

A triple chainring 8 or 9 speed spider for 94mm bolt circle outer and middle compact mountain rings and a 58mm bolt circle inner compact mountain ring. Kit# QCSC9/EBO. This is the spider which comes stock with the CODA Tarantula Expert crank.

A triple chainring 8 speed spider using 110mm bolt circle outer and middle rings and a 74mm bolt circle inner ring. Kit# QCSS/.

A single chainring spider for a 94mm bolt circle downhill chainring or single speed use. Kit# QCSDH/.

1998 CODA Tarantula Expert cranks used a silver 8 speed triple chainring spider (94mm/58mm bolt circle) which can be identified by its non-sculpted outer edges and inner chainring bolt holes which are drilled all the way through the spider. Kit# QCSC/. NOTE: This 8 speed only spider is not compatible with the new 8/9 speed outer and middle chainrings.

CODA CF2 CRANKS

The CODA CF2 crankset features cold forged aluminum arms for the ultimate in strength, alloy outer and middle chainrings for light weight, and a steel inner ring for increased durability against premature wear in the low gears. The CF2 can be used with any 110mm standard bottom bracket with tapered square spindle ends. It accepts 94mm bolt circle outer and middle chainrings and a 58mm bolt circle inner chainring (compact mountain chainring sizing.)

The CF2 is available in both 8 speed and 9 speed configurations. The 8 speed model can be identified by the numbers 170-4.4 or 175-4.4 stamped on the inside of the right crankarm. The 9 speed model can be identified by the numbers 170-395, 175-395, 170-3.9, or 175-3.9 stamped on the inside of the right crankarm.

WARNING: DRIVETRAIN SYSTEMS ARE VERY IMPORTANT TO THE SAFETY OF ANY BICYCLE AND CANNONDALE STRONGLY RECOMMENDS THAT ANY WORK TO THEM BE PERFORMED BY AN AUTHORIZED CANNONDALE DEALER. THE FOLLOWING INSTRUCTIONS ARE PROVIDED FOR PERSONS WHO HAVE A GOOD KNOWLEDGE OF BICYCLE SPECIFIC MECHANICAL PROCEDURES AND WHO ARE EQUIPPED WITH THE PROPER TOOLS AND EQUIPMENT. INCORRECT INSTALLATION OR SERVICE MAY REDUCE PERFORMANCE, AND COULD RESULT IN A DANGEROUS SITUATION LEADING TO INJURY OR DEATH. IF YOU HAVE ANY DOUBTS ABOUT YOUR ABILITY TO PERFORM THE FOLLOWING PROCEDURES, CONTACT YOUR LOCAL AUTHORIZED CANNONDALE DEALER.

TARANTULA CHAINRING INSTALLATION

1) It is easiest to install the chainrings onto the spider before the spider has been installed on the right crank arm. Begin by making sure that the rings which you've selected have the same bolt circle pattern as the spider that you will be using.

2) The outer and middle chainrings must be installed with the correct orientation to provide the best shifting possible. Each ring has a countersunk bolt hole for the five chainring bolts, and the countersunk side of each ring must face away from the five tabs on the spider to which the rings are bolted. This will allow the chainring bolts and nuts to sit into the recesses on each ring. You can verify this orientation by making sure that the machined cuts and ramps on both chainrings face towards the inside of the bike.

3) The large chainring has a pin on the outside which will need to be aligned with the right crank arm to prevent a derailed chain from getting jammed between the arm and the large chainring. Also, both the middle and large rings have a mark which needs to be aligned with the right crank arm to provide the best possible shifting. These orientations will be achieved by aligning the "bump" on each chainring with the "dimple" on the inside of the spider, and then by aligning the dimple with the right crank arm when installing the spider on the arm. See Figure 1.

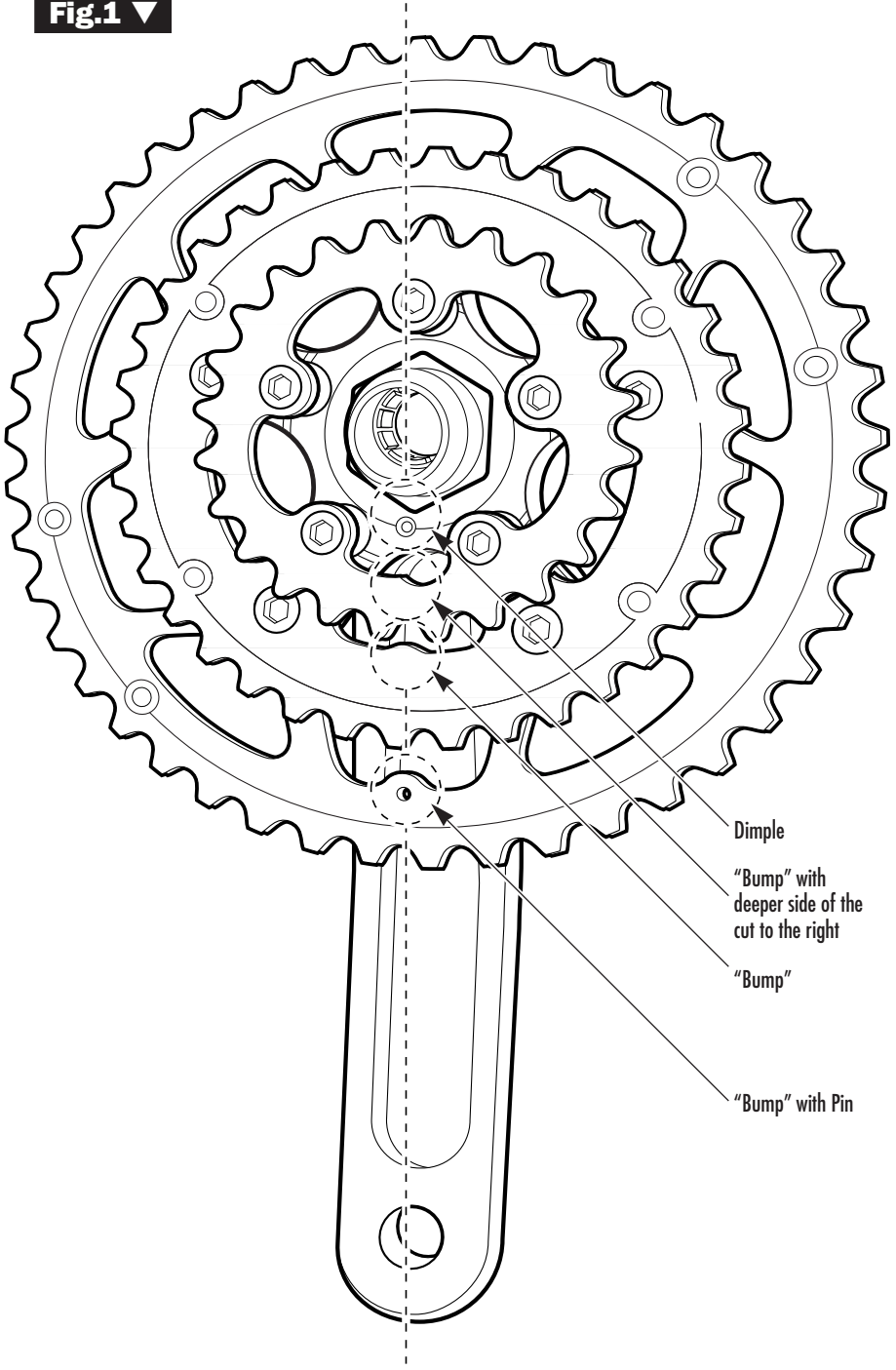
NOTE: The 1998 Tarantula Expert 8 speed spider did not have a dimple, refer to illustration at right for proper orientation of the chainrings and spider.

4) Grease the threads of the chainring bolts. Install the chainring bolts through the outer and middle chainrings and the spider. Tighten each of the chainring bolts to 80-100 In-Lbs (9-11.5 Nm) using a 5mm allen wrench.

5) When installing the small chainring onto the spider, it also must be oriented correctly to ensure the best possible shifting. The chainring bolts for the small ring screw directly into the raised threaded holes in the spider. When looking at the spider with the small chainring side facing you, the ring must be installed so that the "bump" on the inside of the ring both lines up with the "dimple" on the spider, and so that the deeper side of the cut is to the right. See Fig.1.

6) Grease the chainring bolts for the small ring. Tighten each of the chainring bolts to 80-100 In-Lbs (9-11.5 Nm) using a 5mm allen wrench.

Fig.1 ▼



Dimple

"Bump" with deeper side of the cut to the right

"Bump"

"Bump" with Pin

TARANTULA SPIDER INSTALLATION AND REPLACEMENT

1) After selecting and installing the chainrings of your choice, prepare the right crank arm, spider, and lock ring by removing any old Loctite material from the threaded areas and the hexagonal flats with a Scotch-Brite pad.

2) Once the interfacing parts of the right crank arm, spider, and lock ring have been cleaned, coat the threads and all points of contact between the arm, the spider, and the lock ring with Loctite 242 (blue).

CAUTION: The interface between these three parts must be clean for maximum adhesion of the Loctite which will help hold the spider securely to the right crank arm.

3) Place the spider on the inside of the right crank arm so that the large chainring will be on the outside when the crank is installed on the bottom bracket. Also, make sure that the hexagonal flats line up and that the small dimple on the inside of the spider lines up with the right arm. See Fig.1.

4) Using the Tarantula tool (part# 107142) tighten the lock ring onto the threads on the right arm to 35-40 Ft-Lbs (48-55 Nm). Wipe any excess Loctite off of the crank.

INSTALLING TARANTULA COMPETITION CRANKS TO A SPLINED BOTTOM BRACKET

1) If the bottom bracket is not yet in the bicycle frame, install it on the bike according to the manufacturer's instructions.

2) Remove the threaded bolt cap, the crank arm bolt, and the washer from each of the crank arms. Apply a little bicycle grease to the splined serrations on the inside of each crank arm, and to the crank arm bolts and washers.

3) Place each crank arm onto the splined bottom bracket spindle so that the splines mesh. Make sure that the arms are oriented at 180 degrees to each other. Using only the palm of your hand, press or tap the arms onto the bottom bracket to insure that the splines start to engage.

4) Install the washers and crank arm bolts and tighten the bolts using an 8mm allen key to 30-35 Ft-Lbs (41-48 Nm.)

5) Lastly, attach the threaded bolt caps to 44-60 In-Lbs (5-7 Nm.)

6) Remember when installing the pedals to the crank arms that the left pedal is left-hand threaded and is tightened by turning the pedal spindle counter-clockwise. The right pedal has a standard thread and is tightened by turning the pedal spindle clockwise. Always grease the pedal threads before installing them into a crank.

NOTE: Once the bolt caps have been installed, the Competition's crank arms can be removed from the bottom bracket simply by turning each crank arm bolt counter-clockwise. No additional tools are necessary.

INSTALLING CF2 AND TARANTULA EXPERT CRANKS TO A BOTTOM BRACKET

1) If the bottom bracket is not yet in the bicycle frame, install it on the bike according to the manufacturer's instructions.

2) Make sure that the bottom bracket spindle flats are clean and free from grease. Place each crank arm onto the bottom bracket spindle so that the arms are oriented at 180 degrees to each other. Grease the threads of the crank arm bolts, install the washers and bolts, and tighten the bolts using an 8mm allen key to 30-35 Ft-Lbs (41-48 Nm.)

3) Remember when installing the pedals to the crank arms that the left pedal is left-hand threaded and is tightened by turning the pedal spindle counter-clockwise. The right pedal has a standard thread and is tightened by turning the pedal spindle clockwise. Always grease the pedal threads before installing them into a crank.

4) NOTE: To remove the arms, you must first unscrew the crank arm bolts and then use a cotterless crank extractor such as the Park CCP-2 to press the arms off of the bottom bracket.

CODA WARRANTY

All CODA components are warrantied against manufacturing defects in materials and/or workmanship for a period of one year from the date of original retail purchase.

Not covered under warranty is damage resulting from improper installation, adjustment, or maintenance, lack or maintenance, alterations, crashes, or use judged by CODA to be excessive or abusive.

For warranty related questions or for more information on this or any CODA product, please feel free to contact us.

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