

BLACKSPIRE

SUPER COMPONENTS

STINGER CHAIN TENSIONER INSTALLATION INSTRUCTIONS

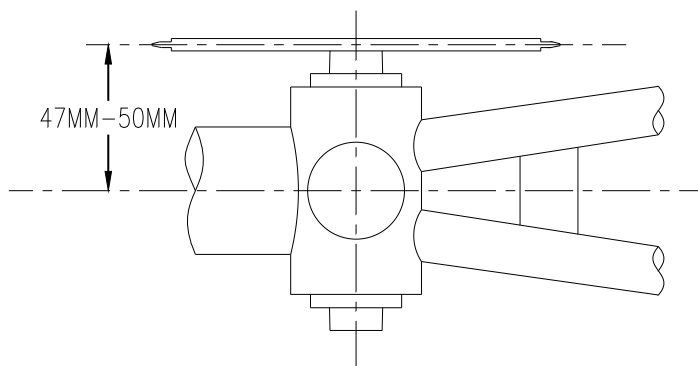
PLEASE READ!!

Thank you for choosing Blackspire. We pride ourselves in manufacturing best performing chainguides on the market today. All chain retention devices are a custom fit. Rarely do we encounter an out of the box install. If you are not familiar with any of the terms mentioned in this document or you are not completely confident to complete this install **DO NOT ATTEMPT ON YOUR OWN!** If you are not an experienced bicycle mechanic we strongly recommend that you have a qualified technician at an authorized bike shop install your chainguide for optimal performance.

IMPORTANT!

Correct chainline and proper setup are critical for the chainguide to properly function.

Your bicycles chainline should be between 47 and 50mm. Chainline is measured from the teeth of your middle chainring to the center of your frame. (See Diagram) The length of your bottom bracket spindle adjusts Chainline. Shimano cranksets that use External bearing cups have a fixed chainline of 50mm. If you are using a splined bottom bracket such as ISIS or Octalink, you may need to change your bottom bracket to get the required chainline.



NOTE FOR BB MOUNT CHAINGUIDES: If you are using a splined bottom bracket to mount your Dewlie/DewLite and your chainline is correct without the chain device mounted, it will be incorrect when you install the guide. You need to compensate for displacing the crankset away from the frame. You do this by using an E-type bottom bracket or a bottom bracket that is labeled as chainguide/e-type compatible. You must use an E-type compatible bottom bracket to install your Dewlie/DewLite! Failure to do so will result in incorrect CHAINLINE and subsequently your chain coming off. If you are using an ISCG model chainguide, installation will not affect the chainline and an E-type bottom bracket is not required. Square taper spindle BB's are not recommended for use with Dewlie/DewLite chainguides.

Installation instructions for BB mount STINGER Chain Tensioner

1. Remove both **CRANK ARMS** from the bike and uninstall the **BOTTOM BRACKET**.
2. Clean the threads of the **BB shell** and the surrounding area of the frame.

3. Consult the chart on the right to see what **chainline** your bike requires. Refer to your crank manufacturer to determine which **BB** gives you the required **chainline**. **Make sure the BB has a flanged and offset(E-type style) driveside cup that is chainguide compatible.**

BB Type	CHAINLINE	
	68mm BB Shell	73mm BB Shell
ISIS Splined cartridge	47.5mm	50mm
Shimano Octalink cartridge	47.5mm	50mm
Shimano External Cup / X-type	50mm	50mm

4. Once you have determined the proper **bottom bracket**, lightly grease the threads of the **BB shell**. **DO NOT GREASE THE THREADS OF THE BB CUP!**
5. Mount the **STINGER**(B Figure 1) loosely to the frame using the driveside **BB cup**. The **STINGER** should be sandwiched between the flange of the **BB** and the face of the frames **BB shell**. See Figure 4.

NOTE: When mounting the **STINGER** with an external bearing type **BB** on frames with **68mm BB shell** you must leave one spacer(2.5mm) between the frame and the **STINGER**.

6. Rotate the **STINGER** so that the **ROLLER**(D Figure 1.) between the **7 and 8 O'clock position**. Some frames have dropped chainstays that may require you to mount the guide at a different angle.

Make sure there is at least **10mm** of clearance between the tall step of the **ROLLER** and your frames chainstay. (15mm on hardtail frames).

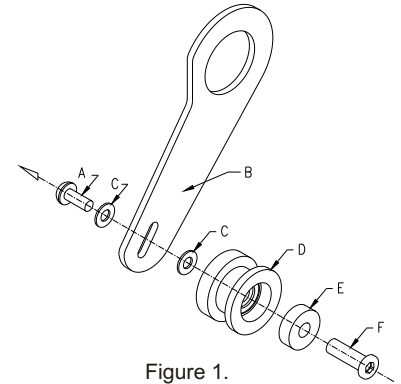


Figure 1.

7. Tighten the driveside **BB cup** to the frame observing the manufacturers torque specifications.
8. Install the **CRANK** assembly to the **BB** and tighten according to the crank manufacturers specifications.
9. Position the **ROLLER** so that it is just in contact with the **BASHRING** and tighten it in place. The **CRANK** and the **ROLLER** should spin freely. The **ROLLER** should not put pressure on your **BASHRING**.
10. Adjust the derailleur's limit screw so that it operates between the middle and granny chainrings only.

A	M6 AXEL BOLT
B	STINGER PLATE
C	M6 WASHER
D	STEPPED ROLLER
E	608 BEARING
F	AXLE

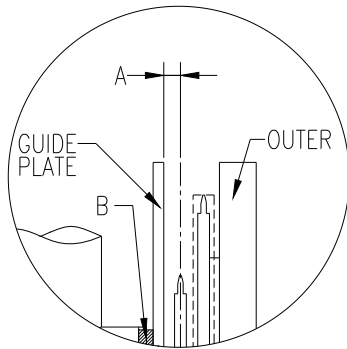


Figure 2.

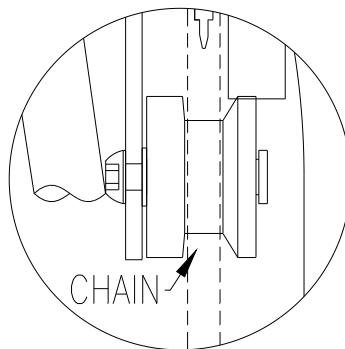


Figure 3.

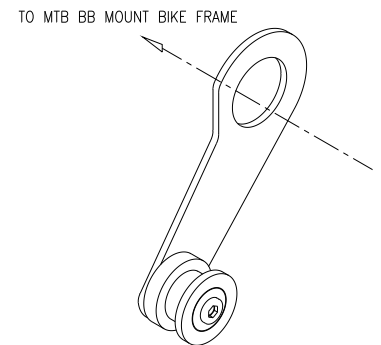


Figure 4.

11. When everything is installed correctly, **SPACING A**(Figure 2.) should be between **4mm & 6mm**, and the groove of the **ROLLER** should be inline with the middle chainring as show in **FIGURE 3**. The **CHAIN** should ride in the groove of the **ROLLER** when it is on the middle chainring and when you shift to the granny chainring the chain should shift up onto the tall step of the **ROLLER**.

Installation instructions for ISCG mount STINGER Chain Tensioner

1. Remove the driveside **CRANK** arm from the bike.
2. Clean the area around the frames **BB shell** and **ISCG** tabs.
3. Mount the **STINGER**(**B** Figure 1.) loosely to the **ISCG** tabs using the provided flathead bolts (**H** Figure 4).
4. Rotate the **STINGER** so that the **ROLLER**(**D** Figure 1) is between the 7 and 8 O'clock position.

Some frames have dropped chainstays that may require you to mount the **STINGER** at a different angle.

Make sure there is at least **10mm** of clearance(15mm on hardtail frames) between the tall step of the **ROLLER** and your frames chainstay.

5. Tighten the three flathead **ISCG** bolts to the frame manufacturers recommend torque specifications.
6. Install the **CRANK** assembly to the **BB** and tighten according to the crank manufacturers specifications.
7. Now that the **STINGER** is mounted to the bike we need to measure the **SPACING A** (Figure 2.) to determine if the setup is correct. Measure the distance from the face of the **STINGER** to the teeth tips of the granny chainring as shown in Figure 2. to get **SPACING A**.

The correct measurement for **SPACING A** is between 4mm and 6mm.

8. If **SPACING A** is greater than **6 mm** you must space the **STINGER** away from the frame appropriately to get the correct spacing. Repeat steps 1 - 8 using the provided **SPACERS**(**G** Figure 4.) between the frames **ISCG** tabs and the **STINGER** until you achieve the proper **SPACING A** then continue to step 10
10. Position the **ROLLER** so that it is just in contact with your **BASHRING** and tighten it in place. The **CRANK** and **ROLLER** should spin freely. The **ROLLER** should not put pressure against the **BASHRING**.
11. Adjust the derailleurs limit screw so that it operates between the middle and granny chainrings **only**.
12. When everything is installed correctly **SPACING A** should be between **4mm & 6mm** and the groove of the roller should be inline with the middle chainring as show in Figure 3. The **CHAIN** should ride in the groove of the **ROLLER** when it is on the middle chainring and when you shift to the granny chainring the chain should shift up onto the tall step of the **ROLLER**.

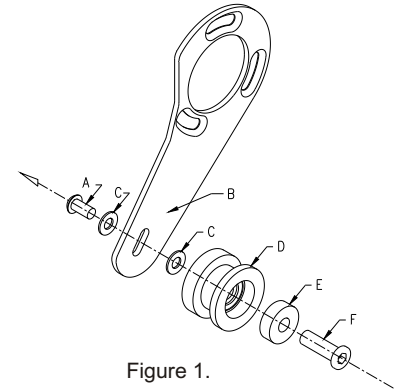


Figure 1.

A	M6 AXEL BOLT
B	ISCG STINGER PLATE
C	M6 WASHER
D	STEPPED ROLLER
E	608 BEARING
F	AXLE
G	SPACER WASHER
H	M6 FLATHEAD BOLT

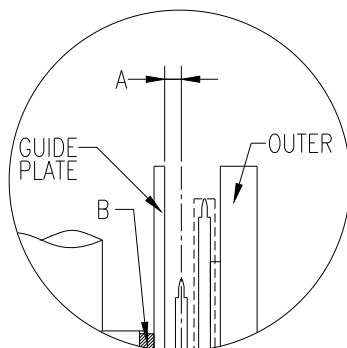


Figure 2.

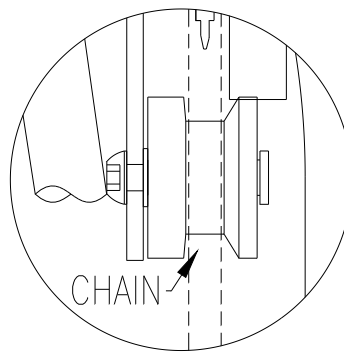


Figure 3.

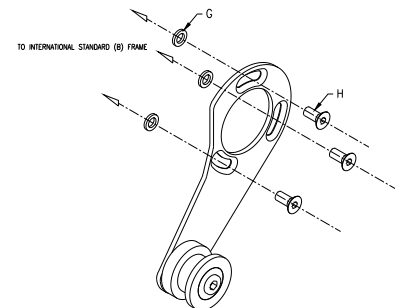


Figure 4.