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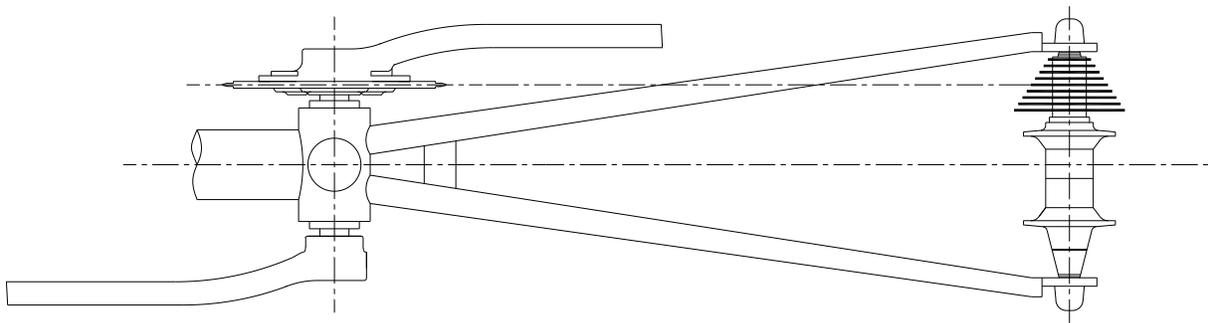
CHAIN DEVICE USER GUIDE

Thank you for choosing Black Spire. We pride our selves in manufacturing one of the strongest chain devices available. When installed correctly it will greatly reduce the frequency of chain derailments.

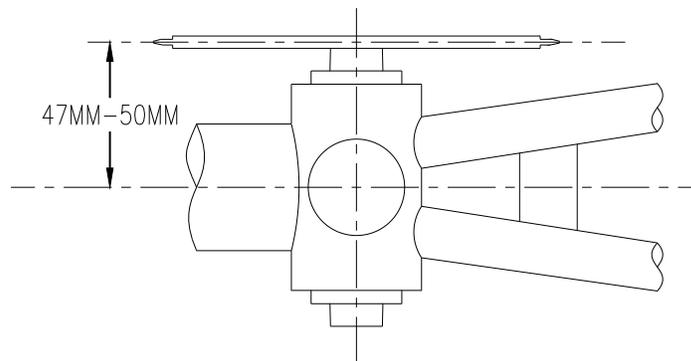
Following, will share with you what we have learned over the years about installing chain devices. With this information and your new chain device, we can keep your chain on the chain ring and keep you pedaling

Lets start with the basics. The correct **Chainline** is critical for proper operation of your drivetrain.

Chainline is all about keeping things in a straight line. Ideally, your chain should be parallel with your frame at all times. Because, we use more than one sprocket on the back, this is not always possible. When checking for correct **Chainline** we imagine a line between the middle chainring on the front, and the center cog on the rear. This line, when correct, will be parallel with the centerline of your frame. (see figure 1)



The length of your bottom bracket adjusts **Chainline**. Your crank manufacturer determines the length of your bottom bracket. If you are not sure what length bottom bracket you require, your **Chainline** is correct if the center of your middle chainring is between 47 and 50mm from the center of your bottom bracket. (see figure 2)



If your chain line is correct without the chain device behind its cup it will be incorrect when we install one. You need to compensate for displacing the crankset away from the frame. You do this by using an **E Type** bottom bracket. **You Must Use An E Type Bottom Bracket To Install Your Chain Device!** Failure to do so will result in incorrect **Chain Line** and subsequently your chain coming off. If you are using an **ISCG** model chain device, installation will not affect the chainline and an **E Type Bottom Bracket** is not required.

For ISCG Chainguide installation see pg. 2

For BB Mount Chainguide installation see pg. 3

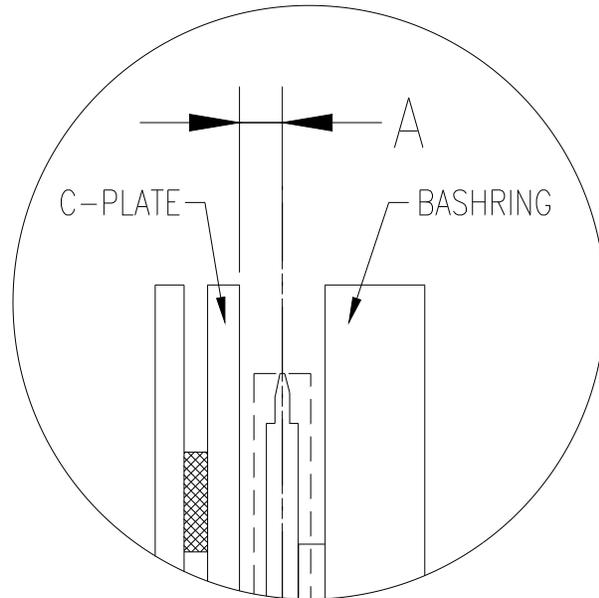
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INSTALLATION INSTRUCTIONS FOR NSX & DSX CHAINGUIDES

These guides are designed to install and setup easily.

For correct function **SPACING A** should be no greater than **4mm**

In order to adjust **SPACING A** you must change the spacer/washers between the **Y-PLATE** and the frame accordingly.

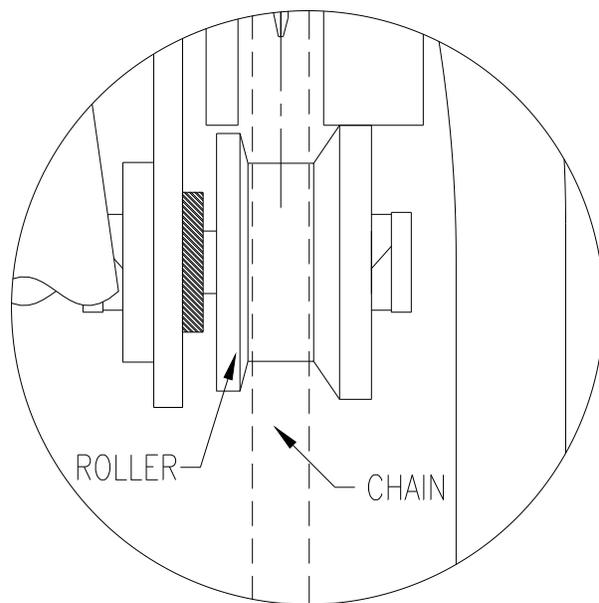


Once you have determined the proper frame/**Y-PLATE** spacing and **SPACING A** is **5mm**, mount the guide to the frame loosely.

Rotate the guide clockwise until the **ROLLER** sits higher on the bike than the lowest point of the **BASHRING**. Make sure there is enough clearance between the frame's chainstay and the **ROLLER** for the chain to pass through.

Now tighten the **Y-PLATE** to the frame.

Tighten the **ROLLER** so that it is in contact with the **BASHRING** and turns as the crank revolves.



Position the top **SLIDER** so as there is **1mm** clearance between the slider and the chain when it is in the largest cog on the back and at your bike's travel is **SAGGING**. **(It is normal that the chain rubs on the C-plate when the chain is in top two cogs)**

Now go ride!!

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INSTALLATION INSTRUCTIONS FOR BB MOUNT NSX & DSX CHAINGUIDES

For correct function **SPACING A** should be no greater than **4mm**

In order to adjust **SPACING A** you must change the **SPINDLE/BOTTOM BRACKET** accordingly to

68mm BB Shell	47.5mm chainline
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73mm BB Shell	50mm Chainline
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Make sure the BB has a flanged and offset(E-type style) driveside cup that is chainguide compatible.

NEVER space the **C-Plate** out from the **Y-Plate**.

Once you have determined the proper **SPINDLE/BB**, mount the guide to the frame by the bottom bracket loosely.

Assemble the **BASHRING** and **CHAINRING** to the crank arm.
For **C4 BASHRINGS**, tightening torque is **35 IN. LBS.**
NEVER use spacers to mount the **C4 BASHRING**.

Rotate the guide clockwise until the **ROLLER** sits higher on the bike than the lowest point of the **C-Plate/BASHRING**. Make sure there is enough clearance between the frame's chainstay and the **ROLLER** for the chain to pass through.

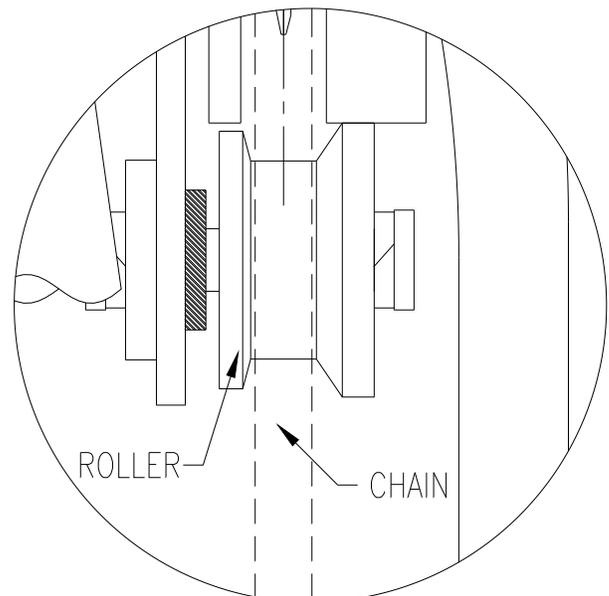
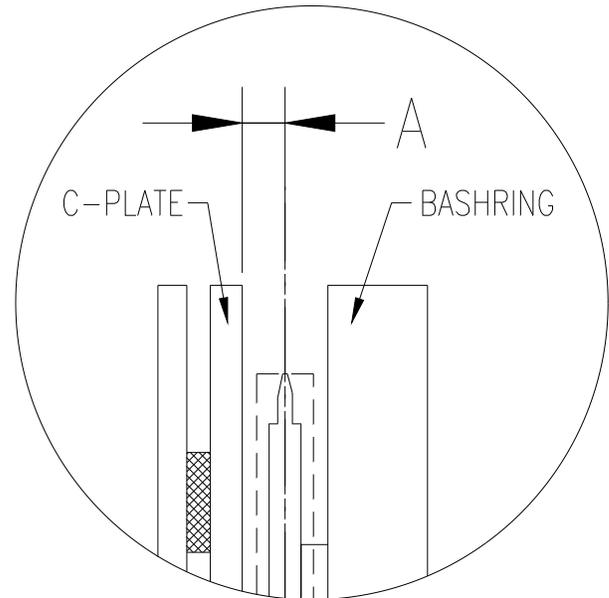
Now tighten the **Bottom Bracket** to the frame.

Install the **CRANK** assembly.

Tighten the **ROLLER** so that it is just in contact with the **BASHRING** and spins freely as the crank revolves. The **ROLLER** should not put pressure on the **BASHRING**.

Position the top **SLIDER** so as there is **1mm** clearance between the slider and the chain when it is in the largest cog on the back and at your bike's travel is **SAGGING**.

(It is normal that the chain rubs on the C-plate when the chain is in the top two cogs)



NOTE: We strongly recommend that you have a qualified mechanic from your local bike shop do the installation of this chainguide. If the guide is improperly installed, it will not function as it should.