

## Installing WickWërks Single Chainrings - – the Z-Rings

Video Instruction at: [WickWerks.com/Quick-Fix-Videos](http://WickWerks.com/Quick-Fix-Videos)

See previous pages for Bolts, Chain, Chainlength & Lube.

1. **Remove Existing Chainrings From Crank.** Note the position and orientation of the original chainrings so you can set the new ones in a similar way.

- For replacement single rings, the new Z-Rings will probably mount in the same way.

- For a conversion from a 2X or 3X crankset, see the included figures for proper placement.

2. **Clean Inspect All Existing Hardware** especially those items to be reused – like BB bearings, bolts, seals, etc.. Replace any parts that are damaged or worn.

3. **Mount the New Rings to the Crank:**

There is no specific alignment required when mounting Z-Rings on the crank – other than the laser etching must be facing out (as shown in the illustration).

- Drive side Crank Arm - align bolt holes
- with chainring marking out.

Note: WickWërks chainrings can be removed and rotated, then remounted occasionally to make the chainrings wear more evenly.

4. Mounting examples are illustrated in the pictures.

5. **Bolt New Chainrings to the Crank.**

- WickWërks Z-Rings mount directly to the crank spider.
- Make sure you are using shorter (Single Ring) bolts, or use bolt tabs or a bash guard to take the space.
- Some bolts are in pairs (male and female);
- Some bolts thread into the crank spider.
- If you have a direct mount, follow the crank manufactures directions.

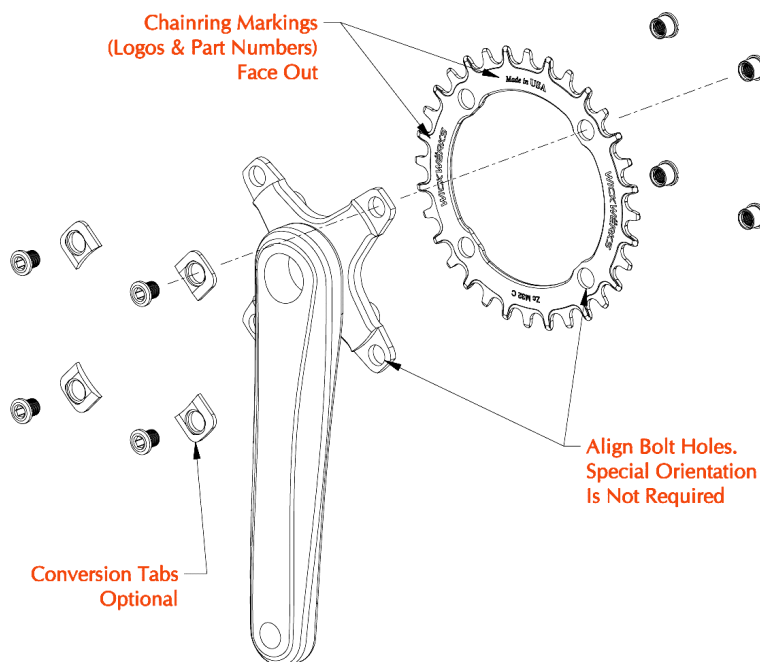
6. **Tighten chainring bolts**, but do not strip threads. See bolt recommendations on page 3.

7. **Remount the crank** (if needed), according to the crank manufacturers instructions. A bit of grease is usually a good idea. Check the BB for cleanliness and proper spacing while you're at it.

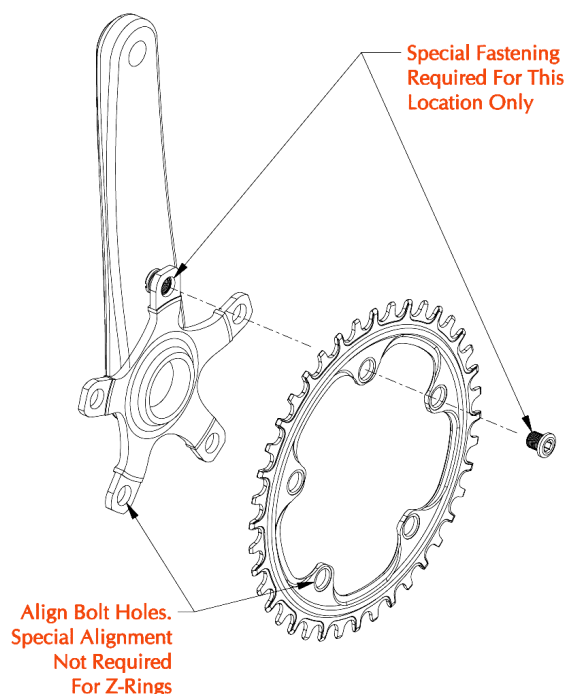
8. **Set the Chain Length.** Even if the new chainrings are replacing rings of the same size, set the proper chain length. See instructions on Page 4. We recommend a new chain with new rings.

9. **Clean and Lube the Chain.** Especially with new chains, we recommend a thorough cleaning before installation. After cleaning (and drying), lube the chain completely. This will minimize noise and wear.

### Typical Mounting Z-Rings, All



### Typical Mounting SRAM 22 Style



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## Recommended Equipment for Use with WickWërks Chainrings

Most standard bicycle equipment – like front guides and chains – work well with WickWërks Z-Rings – of course, with proper specification – (9 / 10 / 11 speed). However, for maximum performance the following equipment ideas should be considered:

**Cranks:** Most cranks work with WickWërks chainrings – provided the bolt circle and hole sizes match. Some size and bolt pattern combinations are not yet available. Be sure the crank and BB are properly mounted with spacers as recommended by the manufacturer.

**Chainring Bolts:** When replacing chainrings, inspect the chainring bolts for any signs of distress. Replace the bolts if they are damaged in any way. Most steel bolts can be reused many times. Many Aluminum bolts should be replaced. Inspect to determine.

**Note about Bolts:** Use proper length bolts. There are many lengths available, some made for single rings, some for doubles, some for direct mounting, some for sandwich mounting. Make sure the bolts are long enough (should have min3 full threads of engagement), but not too long (must not bottom-out in the hole).

**Chains:** Most bicycle chains work well – again, with the right specification (ie. 9 / 10 / 11 speed). We generally recommend higher-end chains for finish considerations (longer chainring life), flexibility and performance.

**Note about Chains:** In dirty environments, we have seen issues for chains with lightening holes in the **inner link** side plates. Those holes collect debris, which has been linked to troubles – like chain suck. That does not mean the chain will automatically have trouble, but it's worth noting when choosing a chain. See image.

**Lube:** With every new chain, we strongly recommend a good cleaning (to remove the rust inhibitor that they are packaged and shipped with) and to set the chain up for quiet, awesome running. Nearly every chain will work well out of the box, but proper lubrication will keep it that way for a long time. See [WickWerks.com](http://WickWerks.com) for lube recommendations.

For more information on Z-Rings, set up or just for good learning, visit [WickWerks.com](http://WickWerks.com) – in particular, the **Quick Fix Video Library** or **Tech Talk** sections for all sorts of bicycle related articles and videos.

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## Set Proper Chain Length

Chain tension is one of the keys to smooth, trouble free bicycle performance for front and rear gears. For front chainrings, chain tension – set by proper chain length – is one key to keeping the chain on the ring.

The rear derailleur sets tension, but to do it, chain length must be correct. Set the length by placing the chain on the big ring in front (or, obviously, the single ring if so equipt), and the biggest cassette cog in the rear (through the derailleurs). Stretch the chain as tight as it will go, then back off a couple links (for hard tails, road and 'cross bikes). Back off a couple more links (as specified by the bicycle manufacturer) for full suspension bikes. This will make the chain reasonably tight in all the positions.

For more info and a video demonstration, please see: [WickWerks.com/Quick-Fix-Videos](http://WickWerks.com/Quick-Fix-Videos)  
A chain that is too long may cause shift problems, chain jumping, and other potential issues.

