e.thirteen

LG1

CHAINGUIDE INSTALLATION INSTRUCTIONS

Thank you for purchasing an e.thirteen SECURITY chain retention device. Our Single Ring Retention systems are unlike any other chainguide ever produced. Because of this, the engineers who developed your e.thirteen SECURITY chainguide recommend that you have a trained service technician at your local bike shop install and tune your new guide for optimal performance. You can find local bike shops listed in your yellow pages or online.

EVEN IF YOU ARE AN EXPERIENCED MECHANIC, PLEASE READ THE ENTIRE INSTRUCTION PACKET BEFORE YOU BEGIN INSTALLATION.

-Some Helpful Information-

Your e.thirteen chainguide is the best combination of light weight and high strength on the market today. It is extremely free running (no-drag), sheds mud easily, and is easily serviceable. Proper installation and frequent cleaning will keep your e.thirteen chainguide running smoothly, quietly, and drag free.

You LG1 chain retention system comes pre-assembled to demonstrate the final assembly order of the entire device. You will need to remove some of the parts during installation, so please familairize yourself individual parts and how they are mounted to the backplate.

IMPORTANT!

- Your new guide is designed to use a flanged fixed cup type bottom bracket when using the supplied ISCG adapter plate.
- Your guide was made to fit a wide variety of frames, but fit up on some frames that were not designed to accept a chainguide may require modification to your guide, frame, or both. Contact your frame manufacturer before any modification of your frame as it may void your warranty.

Parts List:

1 – Back Plate
1 – ISCG Adapter Plate
4 – Wearplates (upper slider(2), lower slider, outer slider)
1 – Tech 2 Sealed bearing idler
1 – M4 x 14 mm Cap screw
2 – M4 x 20 mm Cap screws
2 – M5 x 25 mm Cap screws
2 – M4 nylon insert locking nuts
2 – M5 nylon insert locking nuts
3 – M6 x 10 mm Flathead screws
3 – M6 x 16 mm Flathead screws
9 – M6 x 2.5 mm chainline spacers (black)
3 – M6 x 1.25 mm chainline spacers (gold)
5 - alloy chainring bolt spacers

INSTRUCTIONS FOR FRAMES **WITHOUT**
INTERNATIONAL STANDARD CHAIN GUIDE MOUNT

1) Inspect all existing drivetrain components to determine straightness! Your new chainguide was designed to assist your drivetrain, but performance will be hindered by out-of-round spiders and chainrings, or bent bottom bracket spindles. For your own safety you should replace any damaged components on your bike before riding it. Bent parts = bad performance!

2) Remove both crank arms, chainrings, chain, and drive side bottom bracket cup. Also loosen the non-drive side bottom bracket cup 2-3 turns.

3) Fit up the ISCG adapter plate to your frame. For a normal installation, the counter bored side cups over the bottom bracket shell. For spindle lengths of 125 mm and over, OR on frames that were not designed to accept a chain guide, you can mount the ISCG adapter plate with the cupped side facing away from the bottom bracket shell. Use your flanged fixed-cup type bottom bracket to sandwich the ISCG adapter plate against the flat face of the bottom bracket shell. The upper hole on the plate should be about at the 1 o'clock position. See Fig 1a and 1b for approximate ISCG adapter plate orientation.

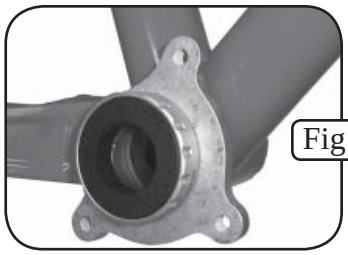


Fig 1a

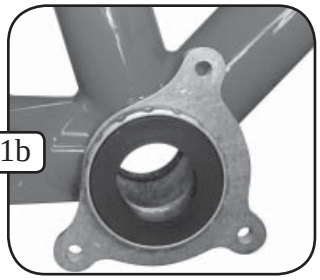


Fig 1b

4) Tighten your flange type bottom bracket into the threads in the BB shell per normal BB installation.

Tip: Grease only the threads inside the BB shell of the frame; grease on the threads of the BB cup will pile up and get between the clamped surfaces, thus reducing the friction between the components and increasing the chances of the ISCG adapterb plate slipping. Follow the torque specification recommended by your bottom bracket manufacturer.

5) Mount the entire guide assembly to the ISCG adapter plate using one of the 2 sets of three equal length M6 flathead screws. The two lengths of screws that are included with your chainguide are for use with the appropriate number of washers. Generally, for 0-1 spacer use the shorter ISCG bolts. For 2 or more spacers use the longer ISCG bolts. If needed, space the back plate away from the ISCG mount with the supplied washers. The Table 1 below is a suggested starting place for spacing out the backplate.

Table 1

BB SHELL WIDTH	CHAINLINE	TYPICAL BB SPINDLE LENGTH	TYPICAL # OF SPACER WASHERS NEEDED	
			BLACK (2.5mm)	*GOLD (1.25mm)*
68	47.5	113	0	FINE TUNE
68 or 73	50	113	0	FINE TUNE
68 or 73	52.5	118	1	FINE TUNE
68 or 73	55	123	2	FINE TUNE
68 or 73	57.5	128	3	FINE TUNE
83	57.5	128	1	FINE TUNE
83	60	133	2	FINE TUNE
100	63.5	140	0	FINE TUNE
100	65	145	1	FINE TUNE

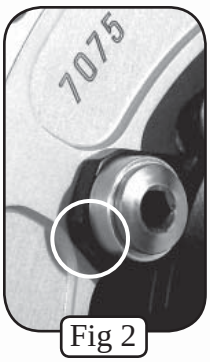


Fig 2

6) Mount your sprocket in the MIDDLE RING position on your spider. The nuts should pass through the middle ring from the backside, through the spider, and through the alloy chainring bolt spacers (as seen in Fig 2).


Fig 3a

7) The upper and lower slider assemblies must now be removed from the backplate. This is necesary to allow for the re-installation of the crankarm/chainring assembly. The upper slider assembly can be removed as an entire unit, whereas the lower assembly will come off in pieces. Be sure to take note of the order in which the assemblies are mounted. See Fig 3a and 3b

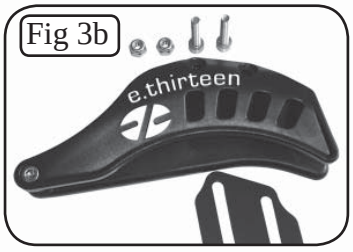


Fig 3b

8) Re-install your crankarm/chainring assembly on to the bottom bracket spindle. Tighten the cranks all the way down. Re-install the upper slider assembly onto the backplate. The upper slider should be directly centered over the chainring. If this is not the case, then add or subtract chainline spacers (refer to Table 1) from BETWEEN the ISCG mount and the BACK PLATE to accomplish this alignment requirement (as seen in Fig 4). Re-install the entire lower assembly. The lower idler should be aligned with the chainring at this point. The upper arm of the back plate is designed to be bent (with a fair amount of force) for fine tuning if needed. This is usually not necessary.

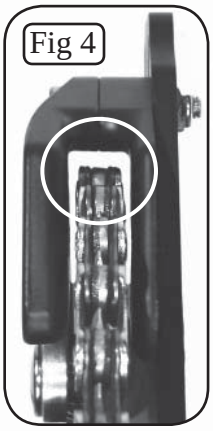


Fig 4

Warning!: DO NOT use the chainline spacers to space the wearplates out from the backplate! Chainline spacers should ONLY be used to space the backplate out from the ISCG adapter plate.

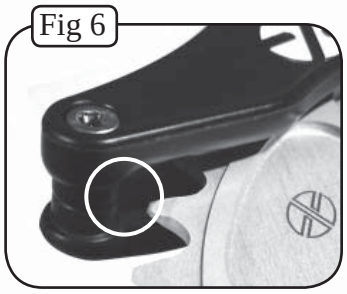


Fig 6

9) Adjust the height of the upper slider so that the upper crossbrace of the slider is about 3 mm (1/8 inch) from the top of the chain (again, see Fig4). The rearward crossbrace of the upper slider should be about 3mm (1/8 inch) from the chainring itself (see Fig 6). Torque the screws to 3.5 in-lbs (about as much force as you can generate by holding the SHORT end of an "L-Shaped" 3mm Allen Wrench).

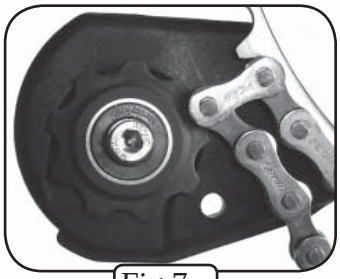


Fig 7a

10) Adjust the lower slider so that the outer guard overlaps with the outer surface of the chainring. The lower idler should be within about 1/2" of the chainring. This will allow for a doubled-over chain to clear itself from the mechanism (see Fig 7a and 7b). Torque the screws to 8 in-lbs (just a couple of turns past finger tight; the nyloc nut will hold it tight).

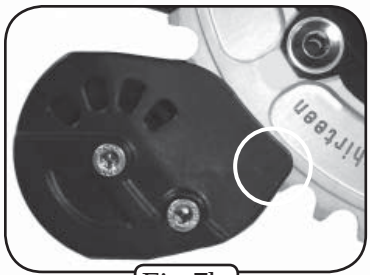


Fig 7b

10) Using the three mounting slots around the cenetr hole of the backplate, adjust rotation of entire chainguide assembly so that the bolts holding the upper slider are at 12 o'clock, and tighten down the M6 bolts holding the backplate to the ISCG mounts. See correct rotation in Figure 8 (following page).

INSTRUCTIONS FOR FRAMES **WITH**
INTERNATIONAL STANDARD CHAINGUIDE TABS

1)Remove the drive side crank from bottom bracket.
2)Follow steps 5-10 of the previous set of instructions.
3)Use supplied bolts and chainline spacers to bolt the guide mount plate to the international standard mount tabs on your frame.

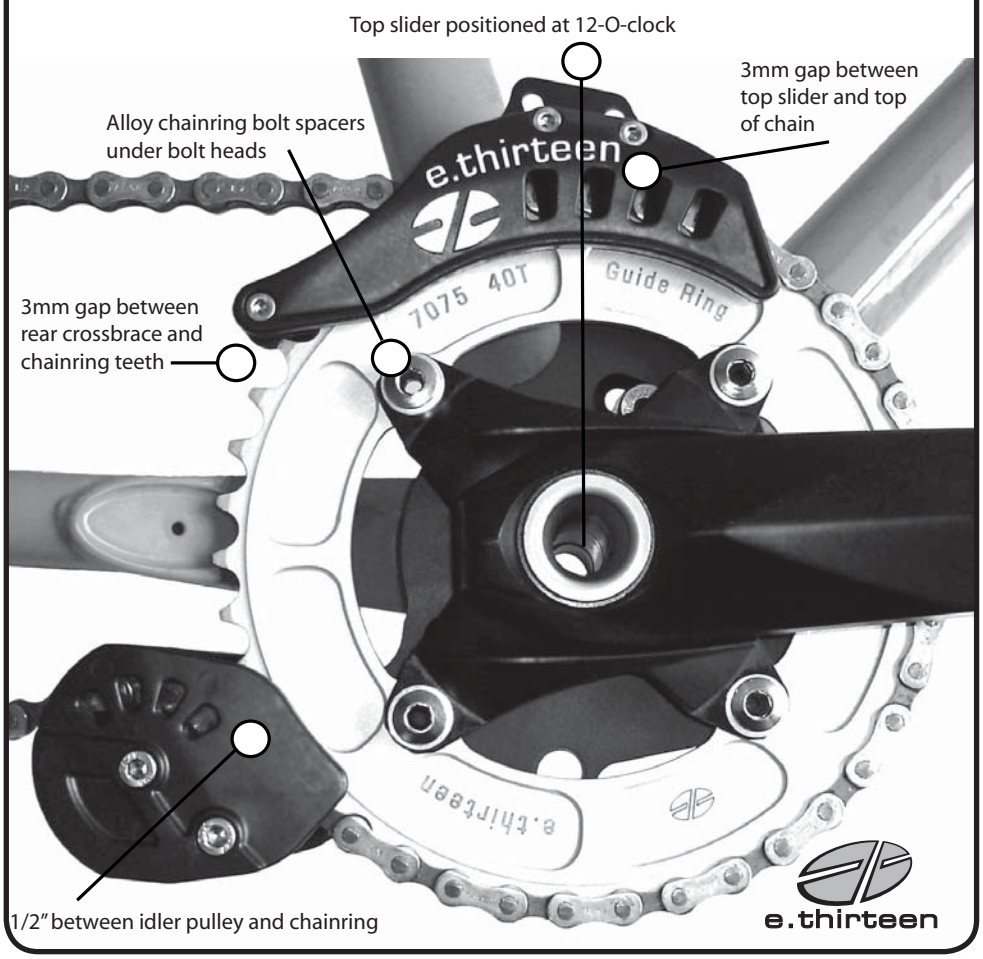
Warning!: DO NOT use the chainline spacers to space the wearplates out from the backplate! Chainline spacers should ONLY be used to space the backplate out from the ISCG Tabs on your frame.

IMPORTANT!! We have found that many frame manufacturers weld tabs on incorrectly, rotated to the wrong position, weld crooked or weld too far away from the edge of the BB shell. Some frame manufacturers have invented their own "standards" for chainguide mounting. The SECURITY chainguide system supports the ISCG or ISCG05 standard. Your guide may or may not fit other mounting systems.

NOTE: Updated and printable instructions and pictures of guides on different frames are available at www.e13components.com. Guide performance is directly related to setup. Check your guide to make sure it is in adjustment after every run to minimize the possibility of failure. If you have any questions about your e.thirteen SECURITY chainguide, contact e.thirteen via e-mail at **support@e13components.com**

Fig 8

2006 LG1 CORRECT SETUP



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