## COMPATABILITY - CHAIN DAMPERS

The **STFU chain dampers** wrap around and contain the chain on your mountain bike, limiting how far it can move when riding over rough terrain. This results in a quieter ride as the chain is no longer slapping against your frame but also increases chain life by preventing it from flexing sideways, which can cause the chain to wear and flex too much over time, decreasing shifting performance.



✓ Gearing: The STFU chain dampers are designed to work with 1 X setups only. This means if you have more than one front chain ring the system will not function as designed. We have tested using a single larger unit of the TRAIL set with 2X setups (2 front chain rings) and it works on some bikes. We recommend our STAY-GUARD protection tape for 2X and 3X setups.

#### Specific Applications:

- •1X gearing for trail bikes up to a 52 tooth cassette use the TRAIL set
- •7 speed DH gearing with cassettes up to 26 teeth use the DH-07 set
- •10+ speed DH gearing with cassettes up to 32 teeth use the DH-10 set
- Single speed gearing or 7 speed cassettes up to 21 teeth use the DH-00 set

▼ Fit: The STFU modules attach to the top side of the chainstay. For this reason they are generally only compatible with bikes that have 'traditional' chainstays positioned between the upper and lower portion of the chain. The modules will generally not work with 'elevated' type chainstays that sit above the chain but some users have been making them work. However, we take no responsibility if you buy and they do not fit.

## COMPATABILITY - CHAIN DAMPERS

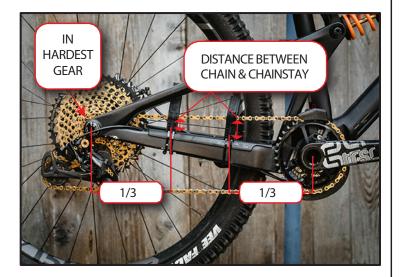




And there are exceptions. For example, Pole Bicycles, who we have partnered with to offer an integrated STFU system on some of their models, mount one STFU chain damper from the top.



You will also need a minimum of 8mm clearance and a maximum of 60mm clearance between the chain and the chainstay when in the hardest gear (smallest cog on cassette) for the STFU to fit.



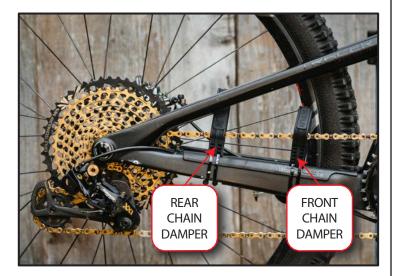
For advice on the best product for your specific application, please contact STFU Bike via email: info@stfubike.com In order to make sure your **STFU chain dampers** are set up correctly, please follow these instructions. Basic bicycle mechanic skills are required including some basic tools. If you are not confident after reading these instructions, we suggest getting your local bike shop to install them for you.

The chain should not rub on the STFU chain dampers when pedalling. The dampers should be positioned so that they are close to the chain in all gears to achieve the best damping but not so close that rubbing occurs. **MINIMUM ZIP TIE WIDTH IS 4.6mm** - Thicker is better. Thin zip ties are not compatible and will result in your dampers going into your spokes.

#### STFU CONTENTS

Each STFU chain damper kit contains two damper modules. One is used towards the front of the chainstay and the other towards the rear.

Note: Remember to check the zip ties after the first few rides and tighten as required. They tend to strech in the sun and need to be secure. Failure to check tension may result in your dampers going into the spokes and being destroyed!



BIKE TYPE	REAR DAMPER	FRONT DAMPER
Trail Bike - up to 52T	TRAIL	TRAIL-Mini
DH Bike 7 speed - up to 26 T cassette	DH07	DH-Mini
DH Bike 10+ speed - up to 32 T cassette	DH10	DH-Mini
Single Speed Bike - or up to 21 T cassette	DH-Mini	DH-Mini

#### WHAT YOU WILL NEED

- x4 200mm Zip Ties that are 5-6mm wide Thin Zip Ties will not work
- Ruler or Tape Measure
- Marker Pen or White Out or similar
- Sharp Utility Knife
- Pliers/Side Cutters
- Chain Link Pliers



#### STFU INSTALLATION

 Measure the distance between center of bottom bracket and rear axle. Divide this length by 3. It should be approx 160mm depending on your bike but exactly 1/3 is the best position. Make a small mark on the top surface of your chain stay as per images below. Use a non permanent marker, a piece of tape, white out or chalk or whatever you like. This is approximately where the STFU chain dampers will be positioned.



**Note:** Ideally the mounting surface should not be covered with a soft or finned rubber factory protector. Soft rubber or fins will likely result in unstable dampers that will flex into the spokes and be destroyed. Harder rubber protectors are generally fine, really soft/thick should be removed and fins will need to be trimmed.

2. Shift your bike into the hardest gear (smallest cog on cassette). **IMPORTANT!** 

**3.** At the point marked in Step 1 - measure from the top surface of your chain stay to the bottom of your chain, directly above this point.

NOTE: Round your measurement up to the nearest 5 mm increment. For example, if you measure 22 mm - round this up to 25 mm. You can trim more off later if required once you trial fit the damper. It will be impossible to make it longer if you cut it too short!

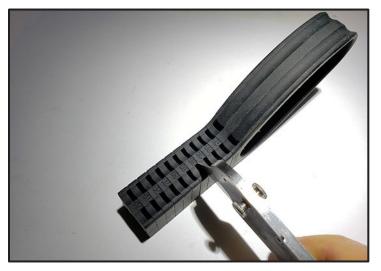




# **STFU** INSTALLATION - CHAIN DAMPERS

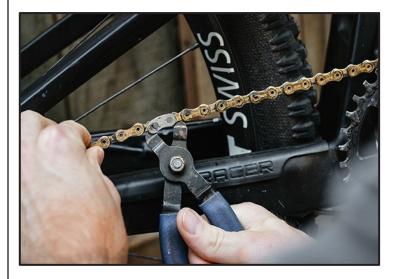
**4.** Trim the STFU chain damper as required - measurements are marked on the back of the damper. For example, we measured 22 mm in the steps above so locate the 25 mm mark on the STFU damper and trim it there. The line closest to the measurement you want is the line to cut at. We have included the clearance in the design so you don't have to think about that.

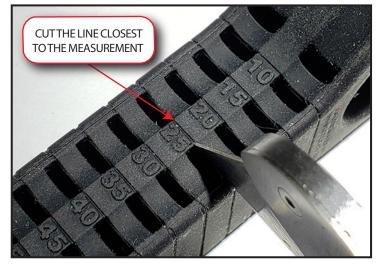
Guide lines are included to help you make a nice straight cut. The TRAIL units have a hard plastic inner skeleton that can be difficult to cut, so make sure you have a sharp blade. Position as shown below and rock the knife back and forth with firm pressure. Use a cutting board underneath.



5. Position the quick link on your chain above your chain stay. Break the chain and insert the chain through your STFU chain damper and then re-connect your quick link.

6. Using one zip tie, position the STFU damper where you made the mark in step 1.





Only tighten the cable tie slightly so you can still move and slide the STFU damper along the chain stay.

If you have rounded or curved chainstays use the included end caps for a more secure fit

Repeat steps 2 to 7 for the front damper module or you can do them both at the same time.



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## INSTALLATION - CHAIN DAMPERS

7. Shift your bike through your entire range of gears taking note of the top and bottom most gears. Modify the position of the STFU so the chain does not rub on the STFU in any position. Having a bike stand or partner for this will make the job a lot easier.

Sliding the STFU forward towards the cranks will generally give more room for the chain and sliding it away from the cranks will give less.

The key is to position the STFU so it is just far enough away from the chain in all gears that it does not rub. The closer it is to the chain, the better damping it will provide so you want to spend some time making sure it is adjusted correctly.

For dual suspension bikes, also check clearance with the suspension at normal sag. This should be done whilst sitting on your bike in full riding kit. Some suspension designs can result in the chain moving relative to the STFU module as the suspension compresses. You need to make sure it's not rubbing the top or bottom when pedaling, otherwise the unit will wear unnecessarily which could lead to failure.

Failure to set up your dampers properly is not covered by warranty.



8. If the chain is rubbing in the hardest gear and sliding the STFU towards the cranks (10 mm or so) doesn't fix this then trimming the height of the STFU by 5mm may be required. Before doing so, make sure there is sufficient room between the chain and the top of the STFU when in the easiest gear (biggest cog) - you may need to move the location of the STFU closer to the cranks to accommodate this.

Note: Take care when trimming the STFU damper modules, we have been able to join cut segments together using additional cable ties when we have cut them too short but this is not an ideal solution.





### INSTALLATION - CHAIN DAMPERS

9. Once you are happy with the position of your STFU damper, add the additional cable tie to properly secure the unit to your frame. We like to position the cable tie heads on the underside or even back side of the chainstay so they are not seen. Important: Use a pair of pliers to really tighten the cable ties up so the dampers are as secure as possible.

Note: Zip ties tend to stretch slightly after being in the sun - this can allow your dampers to rotate into the spokes which can destroy them.

Make sure you check zip tie tension after the first few rides and tighten them as required. After this they should be fine for the season but its a good idea to check them every now and then.

Leave a little extra length on the zip ties when trimming to enable a pair of plyers to be attached.

Note: The ideal position for your dampers is central to your chainstay. This will result in the most stable mounting. If you have to mount the module off the side of the chainstay to prevent chain rub then it will not be stable and is likely to flex under impact forces AND end up in the spokes.

We have tried to accommodate as many frames as possible with the design, however, there will be some frame/gearing combo's that are simply not compatible. Using just one module may be the only solution and one still works well. Feel free to get in touch to discuss.

**10.** Check alignment by shifting your bike through the full range of gears and inspect everything is still positioned as it should be.

11. Go shred on your newly quiet bike!

