

# FEND OFF SHORTY - ASSEMBLY GUIDE

### TOOLS REQUIRED

- 3mm Allen key
- 4mm Allen key
- 8mm Spanner
- Loctite 243
- Torque Wrench

# Additional Tools (if modification required)

- Small Bolt Cutters/Hacksaw\*
- Metal File\*
- M5 Tap\*\*

#### PROCEDURE

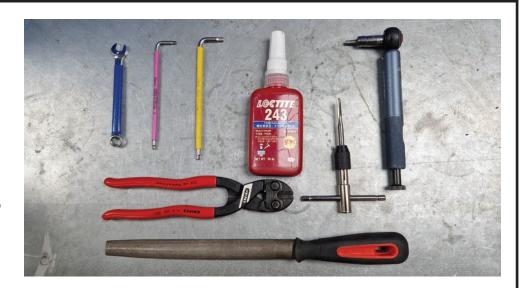
Thanks for purchasing a Fend-Off Shorty mudguard!

Below we have written a fitting guide for the mudguard. Please bear in mind that as with all mudguards there is sometimes a degree of modification required to get a good fit, and that in some circumstances a mudguard may not be compatible with a particular bike.

Due to the many thousands of frame variations, it is not possible to supply every fastener for every conceivable fitment scenario. Whilst we have supplied a selection of commonly required bolts, washers and nuts, some additional fasteners are likely to be required.

Fitting a mudguard can be very simple, but it can also be quite tricky as bikes, mounts and guards vary massively. It is important that your guard is fitted correctly to help ensure your bike is safe to ride.

We recommend that fitting is carried out by a cycle mechanic or if you're confident fitting at home, that the work is at least checked by an experienced, qualified, cycle mechanic.



 Attach the supplied mudguard stays to the underside of the Shorty guard using one M5 x
m bolt, one M5 washer, and an M5 nyloc nut.

The washer must be placed behind the nyloc nut. Ensure that the thread of the bolt is engaged with the nylon insert of the nut, torque to 3-4Nm.

Depending on your frame the stays can be flipped to alter their angle. Choose whichever orientation gives the stays the most natural angle to align with your frame's braze on mudguard mounts.

2) Mount the Shorty guard to your frames seat stay bridge using an M5 bolt and washer\*\*.Do not fully tighten.

The length of the bolt required will vary greatly depending on the design of your frame. Ensure the bolt is long enough for full thread engagement, but not too long that it bottoms out in the mount if it is blind.

In most cases we recommend using Loctite 243 on this bolt, but please refer to your frame manufacturer's guidelines, particularly for torque settings.

#### WARNING: Failure to follow your frame manufacturers instructions could damage your frame which may result in failure and the possibility of an accident causing serious injury or even death.

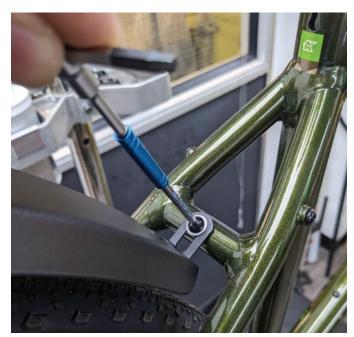
3) Attach the p-clips to the middle of the rubber ends of the stays. The p-clips can face forwards or backwards, depending on what suits your frame best. Loosely attach the p-clips to the threaded holes on your frame using M5 bolts of the correct length\*\*.

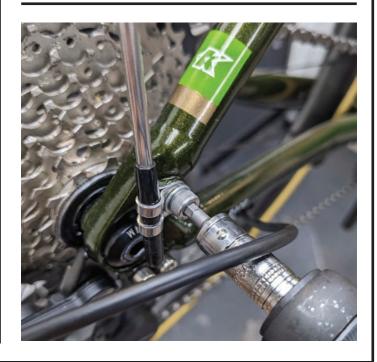
Ensure the bolts are long enough for full thread engagement, but not too long that it bottoms out in the mount if it is blind.

Please also be aware that on some bikes a bolt that is too long on the driveside, could interfere with the bikes drivetrain.

We recommend the use of Loctite 243 on the threads of these bolts, please refer to your frame manufacturer's instructions for more details including torque settings.







4) Now step back and look at your bike and Shorty	5) Some frames require the use of a large
guard side on. You can adjust the height of the guard by moving both the stays within the P-clips and the seat stay bridge bracket*. Please ensure there is an adequate gap for stones, mud, debris etc to pass between the Shorty guard and your wheel. Once you are happy with the position, ensure the three frame mounting bolts are tightened to your frame manufacturer's recommended torque.	number of washers/spacers for the stays to clear the frame, disc brake calipers, or other parts, as well as some manipulation of the stays themselves.
6) Before riding, ensure that your guard does not impede the function of your bike's gears and brakes, and that the wheel and tyre are able to rotate freely with plenty of clearance for mud, small stones, debris etc.	

\*NOTE 1: Some frames have the guard/rack holes higher up on the seat stay. You will need to carefully shorten the stays by removing the rubber ends, cutting the stays to length with bolt cutters or a hacksaw, removing any burrs with a file, and refitting the rubber ends. Please measure carefully as we do not offer replacement stays!

\*\*NOTE 2: Some frames may have excessive paint within the threaded holes. If you are finding that you are unable to get the bolt threaded into the frame, do not force it. Carefully run a M5 tap through the hole and retry.