

## Installation Instructions

Thank you for purchasing a RAW mudflap. You and your ride mates will now be staying cleaner in wet or muddy road conditions.

RAW mudflaps come in two shapes, which are referred to as front and back. We have found these to be the more optimal shape to use in these positions but there is no reason why they can't be reversed or two front or two back ones used instead.



The narrower back flap (right) aims to stop the high arc of spray that comes from your back wheel into the faces of riders behind you. The back flap is narrow where it attaches which allows it to bend without distorting your mudguard too much when you turn your bike up on its back wheel and catch the flap.



The front flap (left) is wider to stop splash coming from your front wheel over a larger horizontal area, protecting your bike's transmission and keeping your feet a bit drier. The front flap's wider top takes on the cross-sectional curve of the mudguard and gives extra rigidity; it's only when

you take the front wheel out that it needs to bend so you should be careful how you support your bike in that case.

To install RAW mudflaps you need to drill holes in your mudguard unless suitable ones exist. The three pre-drilled holes are designed to work with some of the most common mudguards on the market that already have holes or some kind of flap attached that can be removed and replaced with RAW flaps.

**WARNING: MAKING HOLES IN THE MUDGUARD OR FLAP SHOULD NOT BE ATTEMPTED BY ANYONE UNDER THE AGE OF 18 WITHOUT ADULT SUPERVISION.**

Two screws, four washers and two nuts as well as two plastic snap rivets are included for each flap (unless you chose to only receive the snap rivets).

The following steps will guide you through drilling hole(s) and attaching your flaps.

## Drilling Holes in the Mudguard

If your mudguards have no holes pre-drilled hole(s) within 3cm of the end, you will need to drill (at least) one.

If you do have hole(s) you can use the drilling guide stickers on the inside of the guard to judge whether they are well enough placed or if you need to drill more. Ideally, the hole(s) will line up with white holes on the sticker and the edge of the guard with arrowhead corresponding to the size of the flap you are fitting. If the hole or holes are suitable, proceed to the *“Attaching the Flap”* section,

**WARNING: WHEN DRILLING THE HOLE, YOU SHOULD NEVER DRILL THROUGH THE MUDGUARD WITHOUT REMOVING OR PROTECTING THE TYRE.**

1. Before beginning, choose one of the following:
  - A. Remove the wheel of the mudguard you are fitting to and support your bike using a work stand.
  - B. Loosen off the mudguard stays and insert an old piece of wood between the tyre and the end of the mudguard.
  - C. Remove the mudguard completely so you can drill into it on a workbench (probably overkill but the most accurate)
2. Decide whether you will use one screw (easier but flap can rotate) or two screw fixing (harder to get straight but flap stays firmly in place)
3. Check whether it is a front (cone shaped) or back (bottle shaped) and the size of flap you are fitting (stated on order receipt).
4. Carefully, stick the sticker labelled FRONT or BACK onto the mudguard according to which you are fitting. You need to line up the arrow head labelled with the size you are fitting (shown on your order receipt – for back cone and front long use FRONT standard) with the edge of the mudguard. This should help to get the sticker on straight but reposition if not, as this will affect whether your flap is centred and hangs straight if you are using two screws.
5. Drill a 4mm hole centred on the cross marks. Do this for the top and bottom marked holes if you are using two screws and the middle hole if using one.



## Attaching the flap

**IMPORTANT:** Button-head Allen Key screws have been selected as they have a low profile. You can fit the flaps with the screw head on the inside or the outside (which we find better aesthetically) but you should always maintain the clearance between the screw head or nut recommended in your mudguard fitting instructions (in absence of this leave at least 1cm) to avoid things becoming lodged between the screw/nut and the tyre. If you are unable to increase the clearance, put the screw head on the inside as shown in the diagrams below.

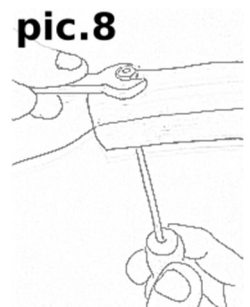
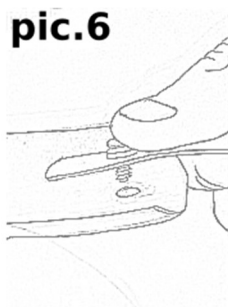
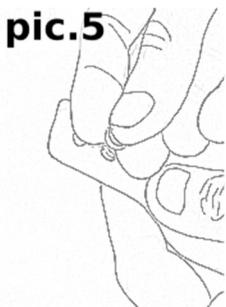
Unless you have chosen to receive only the rivets, each flap comes with two screws, four washers and two nuts as well as the plastic snap rivets.

The plastic snap rivets are a fairly recent addition and offer tool free attachment of the flap but are probably not reusable unless removed fairly soon after fitting (but you can buy more at [rawmudflap.uk](http://rawmudflap.uk)). They should always be used in pairs and with the head on the outside. Instructions for these are on the next page.

Attaching the flap is easiest with the wheel removed and bike supported.

For screw head on the **inside**:

1. Put one of the washers onto one of the screws (or two screws for two-screw fitting).
2. Push the screw(s) through the hole(s) in the flap you have selected to use from the non-Logo / non-coloured / rougher side of the flap (pic.5).
3. Then, thread the screw(s) through the hole(s) in the mudguard from the inside (pic.6).
4. Attach another washer to each screw on the outside of the mudguard and then a nut (pic.7 below).
5. Tighten the nut (which is 7mm) and screw using a spanner and Allen key / screwdriver as appropriate for the screw head (pic.8 below).



For screwhead on the **outside**:

1. Put one of the washers onto one of the screws (or two screws for two-screw fitting).
2. Push the screw(s) through the hole(s) in the mudguard from the outside.
3. Push the mudflap onto the screw(s) on the inside to the mudguard.
4. Attach another washer to each screw and then a nut.
5. Tighten the nut (which is 7mm) and screw using a spanner and Allen key as appropriate.

For **Rivets**:

1. Gently push the rivet(s) through the hole(s) in the mudguard you have selected from the outside without opening the rivet.
2. Push the flap onto the rivet through the selected hole(s). For a front shaped flap you will need to push the flap into the curve of the mudguard to get it onto the rivet(s).
3. Press firmly on the head(s) of the rivet on the outside of the mudguard to secure the flap.

To **remove the rivet**, use something thin or pointy to press on the pointy part of the rivet and it should then pop out.

**IMPORTANT:** You should now adjust your mudguard stays to maintain the clearance between the screw head and the tyre following the recommendations of your mudguard manufacturer. In the absence of those recommendations, ensure at least a centimetre of clearance.

## Care / Usage

- Take care when you turn the bike up on its back wheel. The flap can take a fair amount of punishment but repeated bending and scraping on the floor will cause it to snap off eventually. If you have mounted the flap higher than the level recommended above you may also damage your mudguard.
- If you put your bike with flap on a rear mounted car rack and the flap protrudes from the side of the car, remove or secure the flap. The sideways force at motorway speeds will damage or snap it.
- If you have a front flap attached, take care to lay or position your bike carefully when you take the front wheel out. Try to avoid resting it on the flap as this will put outwards pressure on the end of the mudguard and shorten its life.
- If you have a coloured flap, the covering is a 4 – 7 year outdoor vinyl, which should stand up to the worst water, dirt and grime but, if scratched, dirt could collect in those scratches.
- Do not attempt to bend your flaps to make them curved like mudguards particularly in cold conditions as this may cause them to snap.

Now you have your flaps fitted and are staying cleaner make sure the rest of your group reciprocates! Please tag us in your pictures via Instagram, Facebook or Twitter to help spread the word!

If you have any comments, suggestions or ways we can improve please email us at: [info@rawmudflap.uk](mailto:info@rawmudflap.uk).

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