

WHAT IS A TORQUE ARM, AND WHY DO YOU NEED ONE?

Thank you for choosing to add a torque arm to your Hilltopper conversion kit setup.

If you purchased or added this item on the advice of our support team, then you may still have some questions about what a torque arm even is, and why YOU need one.

We're here to help you understand the purpose of this add-on and why it's so important.

While a standard bicycle is designed to handle torque from the rear wheel, it is typically not expecting the same force from the front wheel.

Since our conversion kits are front wheel drive, that added torque can put some strain on the front fork of some bikes, especially when the forks in question are made of any material weaker than steel (aluminum, carbon fiber, ect.)

Our torque arm is a simple way to reinforce your front fork and ensure that the added torque is properly accounted for.

This guide will carefully walk you through the assembly and installation process (don't worry, it's easy) to make sure that your torque arm is properly attached and your forks are secured.

ASSEMBLING YOUR TORQUE ARM:

Now for the easy part: getting the torque arm properly assembled and ready for installation.

For this part you will need six of the pieces that were included in the bag:

1 Axle Plate

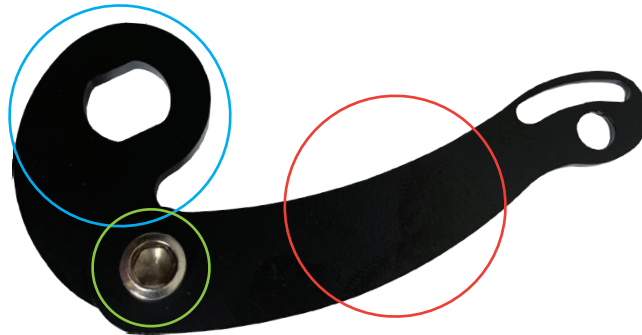
1 Arm

1 Screw

1 Lock Nut

1 'Flat' Washer

1 Lock Nut



Step 1: First, orient the the **Arm** horizontally so that the end with two slots is on the right side, and of those two slots, the smaller one is below the larger one like the above picture.

Step 2: Align the **Axle Plate** so that it's smaller slot matches up with the slot on the left side of the **Arm**, with the curve of the Axle Plate angling upwards.

Step 3: Slide the **'Flat' Washer** onto the **Screw**.

Step 4: Slide the **Screw** through the right slot of the **Axle Plate**, passing through the left slot of the **Arm**.

Step 5: Slide the **Lock Nut** onto the **Screw**.

Step 6: Finish by finger tightening the **Lock Nut** on the other end of the **Screw**.

If it looks like this (see above) , then you are now ready to install the torque arm on your bike!

This will include using the remaining items in your bag depending on your motor.

1 U shaped washer

2 hose clamp bands



INSTALLING YOUR TORQUE ARM:

This final step is a little bit trickier than the last one, only because the exact steps vary depending on the model of your motor.

We'll try to be as clear as possible on the correct installation for each variety.

Variations:

24V (250W) motors: If you have a motor that came with any 24V conversion kit (Pre-Summer-2020 Sprinter, any Commuter or Econ) then this torque arm is not compatible with your set-up. Luckily for you, the added torque from these motors is not strong enough to pose a threat to your forks!

Older 36V (350W) and 48V (750W) motors: If you have a motor that came with any 36V conversion kit (Pre-Spring-2020 Horizon, any Ranger or Universal Replacement Battery,) or our 48V Summit kit, then this torque arm is compatible with your set-up! You will not need to use the included 'U' shaped washer in step 2, as an equivalent washer is already included in your existing washer configuration.

New (Summer 2020+) Sprinter: You may need to use the 'U' shaped washer in step 2.

This depends on how tightly our axle hits on your specific forks.

If it's a tight fit, then you will not need this extra washer.

If the fit seems loose, then you should include it in your installation.

New (Fall 2020+) Horizon: You will not need the 'U' shaped washer in step 2.

Make sure you know which group you fall into, and if you are unsure please reach out to our support team.

Note: You will notice that there are two different hose-clamp bands included, one smaller than the other: [pic]

This is to account for different fork leg circumferences on different set-ups.

You will only need to use one of these bands in your installation, check to see which one fits best and use that one.

INSTALLING ON AXLE:

Step 1: If our wheel is already installed on your bike, then remove the Axle Nut on the Drive Side Axle (the side with the chain.)

NOTE: (If this is part of your initial installation, then wait until the Axle Nut step before starting this.)

Step 2: If you determined earlier that you need the 'U' shaped washer, then slide it onto the axle from the top (it should be open at the bottom.)

(If not, then skip to step 3)

Step 3: Slide the Axle Plate onto the axle, with the arm facing forward.

Step 4: Tighten the Axle Bolt as instructed in your kit installation guide.

INSTALLING ON FORK LEG:

Step 5: Angle the Arm so that it is flush with the right leg of your front fork.

Step 6: Thread the end of the hose-clamp band through the narrow slot on the Arm, around the right fork leg, and back into itself

Step 7: Finally, when you have the band snug, finger tighter the little screw to lock the band in place. The final product should look like this

That's it, you have just successfully installed our torque arm!

NOW GET OUT THERE AND RIDE!

