

FORK EXTENSION INSTALLATION

The TT extensions are installed with the TT brace seated on the center stem to hold the fork tubes in place while torqueing them down. If the brace is already installed, remove the top bolts from the fork tubes, loosen the end clamp bolts and remove the bore spacers.

If you are installing both TT brace and TT extensions for the first time I suggest removing the headlight ears or other brackets from the fork tubes. Reinstall the ears and brackets after the extensions are on. I **strongly recommend** you take this opportunity to service the forks and change the oil. You will have to **REMOVE** the extensions to do it later!

With the recommended TT Stem Nut seated in place with **85 ft/lbs**; loosen the end clamp pinch bolts a few turns so the clamp can spread a bit. You don't want the clamp to have much friction on the extensions or the torque reading will be affected. The TT brace will have a 7mm recess from the top of the tube to the top of the brace.

CLEAN the THREADS. Pull the spring out of the fork tube. Have a rag handy to wipe the oil off as it comes out so you don't drip on the brace. Use a small amount of mineral spirits or other solvent on a soft, clean rag to wipe any grit or debris from the internal threads and fork tops. Don't use so much it drips into the fork as it will alter your fork oil. The TT Extension threads are precision machined to mate firmly with the fork threads. They should screw in smoothly with a slight resistance. You may want to run them in and out and wipe the threads again.

When the forks compress, the top of the spring will rotate inside the stanchion. Your TT Extension comes with a 1mm thick, stainless steel, slip-washer on the bottom of the adjuster base. It's stuck on with a dab of silicon grease. This is to prevent the spring steel from eating into the softer brass base when it rotates. Before you screw the extensions into the fork tube, be sure to check the bottom of the adjuster to ensure the slip-washer is in place.



Screw the TT Extension into the stanchion by hand so you can feel the resistance. They should go smoothly down through the brace and seat on the stanchion top. If not, clean the threads.



If the extension hits the brace or meets stiff resistance once in the brace – use a shallow taper wedge to spread the clamp a small amount. I have two shorty screwdrivers which have wide blades with a shallow taper that work well. The shallow taper prevents marring the brace slit. I used a black brace to demonstrate placement just below the pinch bolt. This makes it a little wider at the bottom so you know the extension will be loose going all the way down.



Once the TT Extensions are hand seated on the stanchion tops – **place the 27mm TT Hex-tool inside the extension with pins down.**

Be sure the caps are removed. **DO NOT** use the pin tool in the cap to install the extension!



Use an accurate torque wrench with a 27mm socket and torque both extensions to an initial **50 ft/lbs** to seat them on the fork tubes.

Please read the important information on the next page for proper fork counter-torque.

I'm using a 27mm socket that was turned down smaller for adjusting the swing-arm pivot.



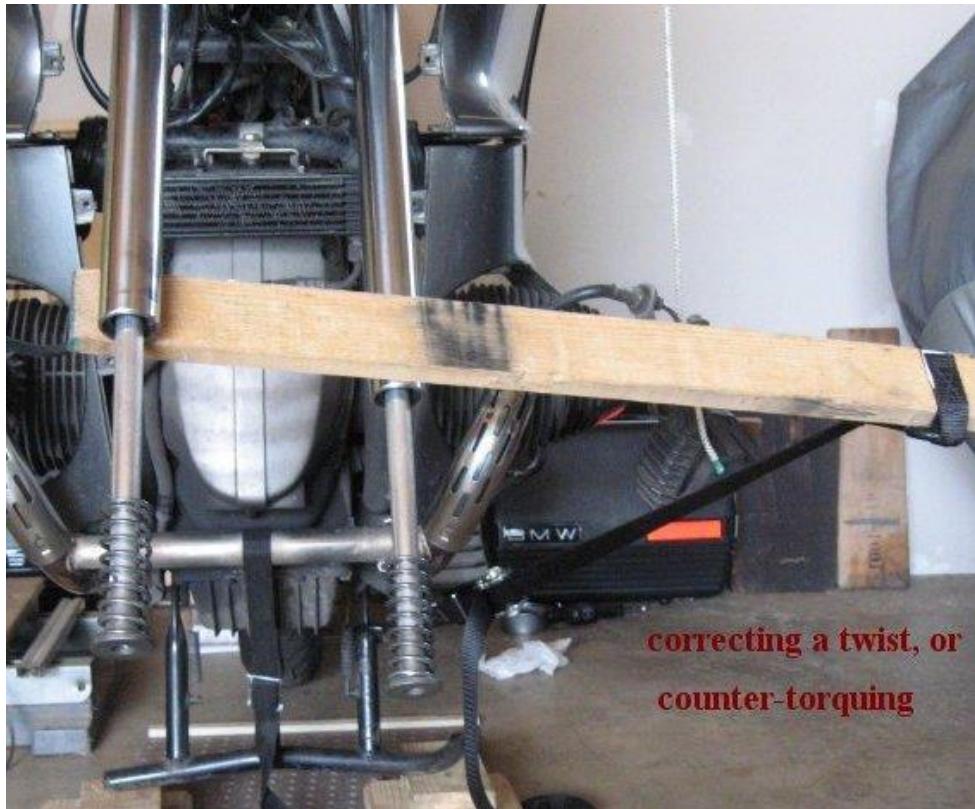
When the TT Extensions are tightened to the very high torque, it introduces a tremendous twisting force on the fork legs. This can throw out the fork's alignment and introduce stiction into the suspension.

There are many sources with information on the operation of Airhead forks. I've linked to, what I feel, are the most complete and accurate sources, which includes a comprehensive article on fork alignment and how to use counter torque to keep from tweaking them.

The link below goes to Bob 'Snowbum' Fleischer's website where there is also a link to Duane Ausherman's website. Duane's site has the Randy Glass fork alignment article which, by all accounts, is **THE** authority on properly aligning forks.

The information and link to Duane's site is about 2/3 down the page. Please take the time to scroll down and see the counter-torque photos as well. There's a lot of info and can be a bit tedious to read all the way through. However, I encourage you to scan through enough of it to get a feel for the information provided. There's a LOT of good stuff in there.

<http://bmwmotorcycletech.info/frontforks.htm>



After the TT Extensions are seated and counter torque rig in place, apply the final – **85 ft/lbs**

Tighten both clamp pinch bolts to **18 ft/lbs**. **DO NOT** over tighten! More is **NOT** better. This is standard torque for an 8mm bolt and produces an exponential grip force on the stanchions. The clamp also holds the extension, which increases the breakaway torque needed to unscrew them. Over torqueing the pinch bolts will damage threads in the brace.

Once installed, loosen each side of the **lower fork yoke** pinch bolts and, using a soft rubber mallet, firmly whack each stanchion a couple times below the yoke to release any preload which may have been introduced. You may need to spread the pinch slit a little. Retighten the lower yoke to **37 ft/lbs** and do a quick check for stiction.

Mounting clip-on bars: Use a shallow, soft wedge to spread the clamp and slide them over the extension. They will be finicky because of the close tolerance, so get exactly aligned with the tube to slide them down. There might be some interference at the bottom of the clamp so you want to have them **slightly above the brace** so you don't mar the aluminum when you rotate into position. Extension caps should be **OFF** when mounting clip-on bars!



Rotate the clip-on bars to the approximate riding position and, once in place, pull the wedge from the pinch slit so they hold on the tube. Swing the forks chock-to-chock and check clearance on the tank, cables or other interference.

ALWAYS remove the extension caps when you are adjusting the clip-on bars. They can catch on the cap and damage it.



Screw on the fork caps **by hand** until you feel resistance from the rubber O-ring. Your caps came with a thin film of silicon grease on the rings so they will slide in place when tightened. Use the TT Hex-tool pin side to finish screwing them lightly in **hand tight**.

DO NOT use a wrench to tighten the caps or the pins will break! The Caps are dust covers. They only need to be seated lightly on the extension.

If you purchased the TT Gauge Mount – now's a good time to put it on.
Shown with Spoke Caps



When ready to adjust fork spring preload for sag and front-to-rear balance of your bike's suspension, simply remove the caps and use a 10mm socket for the adjuster head. The adjusters eliminate the need to use spacers in the tubes and make it easy to fine tune the suspension as you ride in different conditions, rider weight or change the weight distribution on the bike.



I welcome questions, comments or feedback on improving these instructions.

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Thanks for being a customer of ToasterTan products. I truly appreciate your business.

Stephen

