

Hello everybody! This is, I think, my first post on s2ki. I've had an s2000 since about a year ago now. It seems my first will be a DIY - Please let me know if there's anything I need to clarify or improve upon.

I decided to replace the TCT because I could barely hear the noise for a few seconds at startup. Better to prevent now than have to do it down the line, said I to myself. Timing chain guides can end up worn out, timing could jump. It's just all not a happy result. I put in an order for an ANO-BLUE TCT from Ballade, it took under 2 weeks for them to get it in stock. I chose to pick it up in person as I live relatively close to them.

Well, I have yet to see a DIY specifically for the Ballade Sports TCT and I know I would have liked one, just to know exactly what to expect going into installing it.

It's not complicated, in fact it's much easier than doing a new Honda TCT. Here is the how-to with pics.

I should note that I was able to do this without removing my airbox without much difficulty.

Tools used:

Medium C-Clamp

Stubby Flathead screwdriver.

8mm ratcheting wrench(socket will work as well)

10mm ratcheting wrench

10mm socket

The above two 10mm are relatively interchangeable, I used the socket on the 'engine side' bolt and the wrench on the front side bolt.

I don't plan on detailing how to remove the original TCT as there are multiple DIY on how to do this.

I WILL note that with my, apparently, girly arms I found myself unable to easily get leverage on the TCT with the airbox etc in the way to actually pull it out of the block. This is the reason for the c-clamp in the tools list.

Now to start:

You probably want the engine cool. You're gonna be near the exhaust manifold and touching hot heat shields will ruin anyone's day real quick. 😞

Remove original TCT bolts, 2 10mm bolts. Use tools of your choice to do so.

This is where I found the c-clamp handy. I bolted it onto the oil plate and smacked it a couple times with a wrench to loosen it, then used the clamp as a handle to wiggle the TCT back and forth while slowly pulling it out.

First picture: Old TCT and where I aligned the C-Clamp to assist in leveraging it out.



Simple enough.

Next, prepare to put the Ballade TCT in
- This is how it looks. Do NOT remove the wingnut or bolt until it is snug in the engine.



Ensure you have these bolts, they are for the oil plate and the banjo bolt you will put in after you remove the wingnut & bolt.



If you need to I don't really see a reason you couldn't reuse the OEM bolts, but the banjo bolt may have different internal diameter as I know the size of oil galleries was one criticism of potential TCT failures in the first place.

1. When installing the TCT to the block it should sit FLUSH without any force beyond what it takes to get the O-rings through the hole.

Alex from Ballade informed me if you feel ANY blockage when installing the TCT it is likely the chain has tension and you should slowly hand crank the engine to ensure you don't skip timing until there is nothing stopping you from the TCT being completely flush against the block without any force needed.

IF YOU NEED TO BOLT THE TCT DOWN TO GET IT TO BE FLUSH YOU MAY BREAK YOUR TIMING CHAIN - ALMOST NO FORCE IS NEEDED TO MAKE THE TCT SIT AGAINST YOUR BLOCK WITH NO GAP. I was able to press it fully into the engine using just 3 fingers

2. Once you have the TCT flush against your block, just finger thread and hand tighten the bolts down. Torque to approx 9ft/lbs torque - This is an extremely light amount of torque. I found using the ratcheting wrench limited my torque by hand better than the socket wrench. I sheared a bolt using the socket - more on that at the end.

3. Once the TCT base is tightened down, remove the wingnut and bolt. If it is turning, tighten the wingnut down to the TCT and loosen the bolt with an 8MM wrench. As you progress, you may have to re-tighten the wingnut to the TCT to ensure the bolt is unscrewing and not just spinning.

4. With the wingnut + bolt removed the bar is now extended within your engine, if you have to remove the TCT for any reason you will have to re-compress the spring.

4a. Install the banjo bolt in the same hole the wingnut+bolt was originally. Tighten down with a flathead screwdriver. There is a reason it's a flathead: It does not need much torque to be tight enough. Tighten it down, and then one more 'snug it' tiny turn, don't force anything.

This is how the TCT looks once installed.



5. Install the oil plate on top of the now installed banjo bolt.

Here is how the completed TCT looks.



You can see the back of my airbox in these pics, I took the top of it off but that is all. I also unplugged the sensor just above the TCT for a little more room.

Now make sure everything is good and get ready for the moment of truth!

https://www.youtube.com/watch?v=3G_m...ature=youtu.be

(Note the induction sound is really not that loud in person, but it IS significantly louder with the top of the airbox off vs with it on. Once it was back on it was significantly quieter. I've now driven about 2 miles on it, as of tomorrow it will be over 20 with no breakage or odd sounds. I also idled the car for about 10 minutes to listen for any odd sounds or give it a chance to break then if it was going to. Additionally, that you CAN'T hear any timing chain noise is excellent ++.

Now for my addition to the story:

I was tightening the 10mm bolts into the engine with my socket wrench and they just kept turning, then one felt loose and I had an "oh god no" moment. Quickly remove bolt...or the top half of the bolt. The socket wrench had sheared it in half. Luckily the other 10mm bolt was in better condition - loosening it from the engine brought the TCT out and the second bolt was only finger tight and easily removed.

In doing so I had to remove the TCT and re-compress the spring. Upon trying to do this the first time everything shot out in pieces so I spent 10 minutes trying to figure out exactly how everything fit together again. I called Alex and he reassured me if I had managed to get it to compress & it was sitting flush against the block that everything was put together the right way as it only went together one way. The trick was screwing the worm gear into the bar that holds tension against the chain(I don't know the exact word)and, after doing so, screwing the 8mm bolt in. Then I had to use a pair of vice grips to ensure the module didn't move as I turned the 8mm to compress the spring. It was a little bit of a task, even Alex admitted himself that it wasn't easy to compress the spring down to the correct length where you can safely put the TCT into the block.

Regardless, this shouldn't be a concern for most people unless you get a little too happy torquing your bolts back on like I did.

I will also say that after removing the grips there were NO marks on the TCT at all. I am VERY pleasantly surprised with the quality of the materials that went into this TCT.