SR20ve Cam Sync Install Guide
Part #200032

WARNING! Please read the whole guide before installing this part.

Legals:

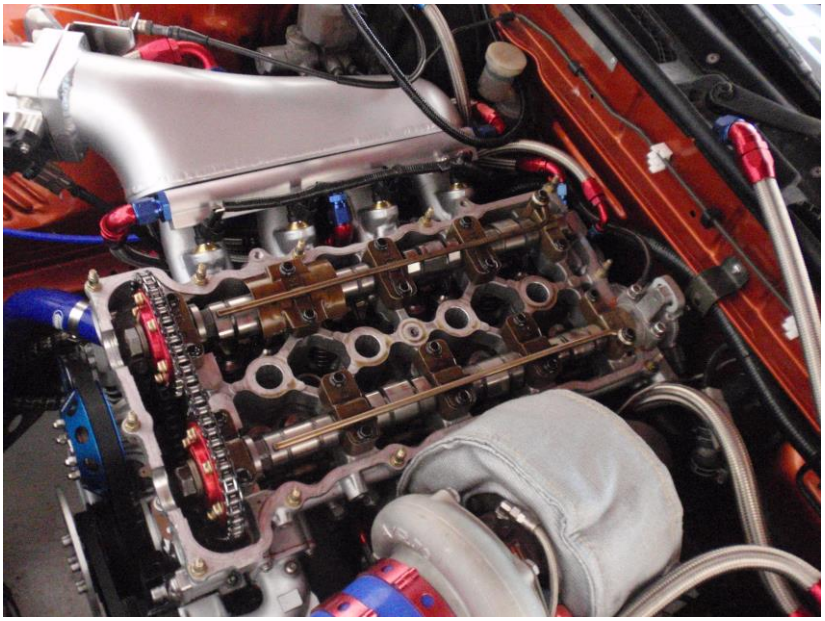
TAARKS SR20ve cam sync kit has been designed and is intended for off-road use only. The installation of this part on a vehicle intended for use on public roads may violate laws and regulations in your country/state. Additionally, this part is sold with a LIMITED warranty that only covers defects in manufacturing. This warranty does not cover any damage incurred by using this part. The installation of this part may also void any vehicle warranties. Refer to a performance specialist for proper installation.

After opening the packaging please check to see if any parts are missing or damaged. If something is missing or damaged please contact us immediately. Do not install the product.

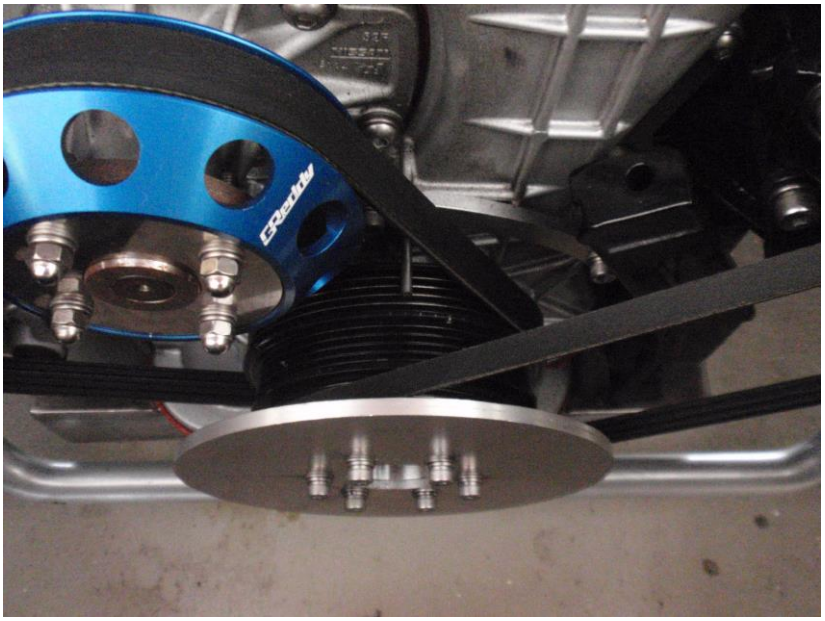
Do not modify this part in any way. Modifying the part may result in failure of the part and voids all possible warranties.

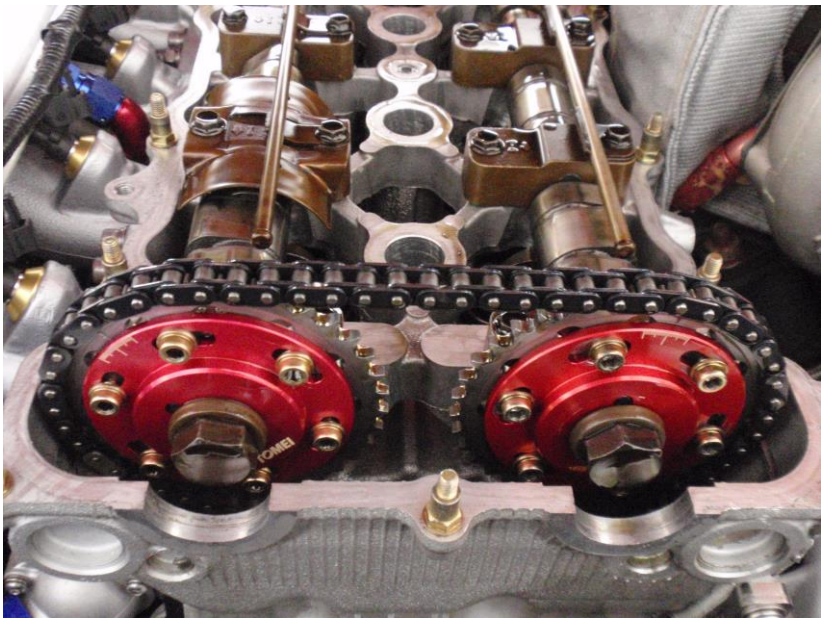
Installation Guide

Remove the rocker cover and everything attached to the rocker cover.

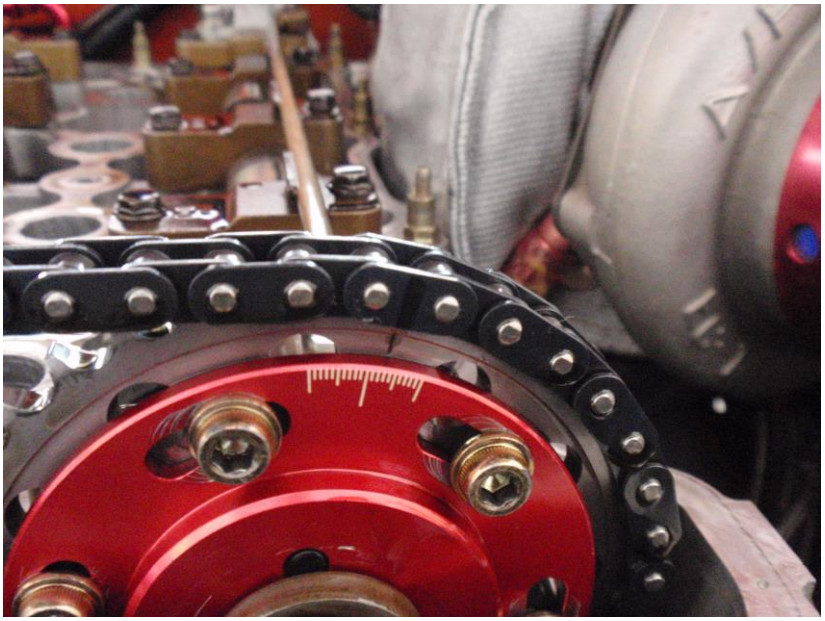


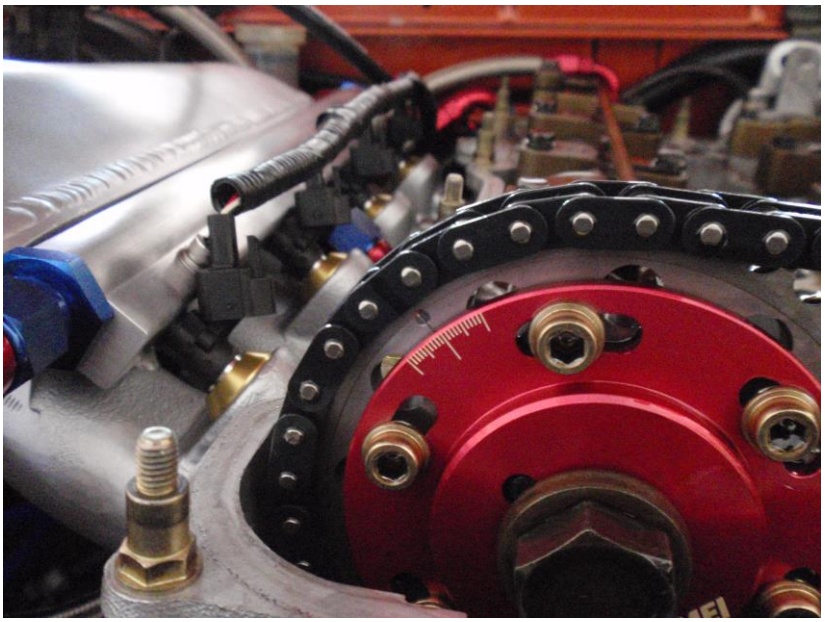
Set the motor to TDC on cylinder one. The lobes on the camshafts for cylinder one will face away from each other.



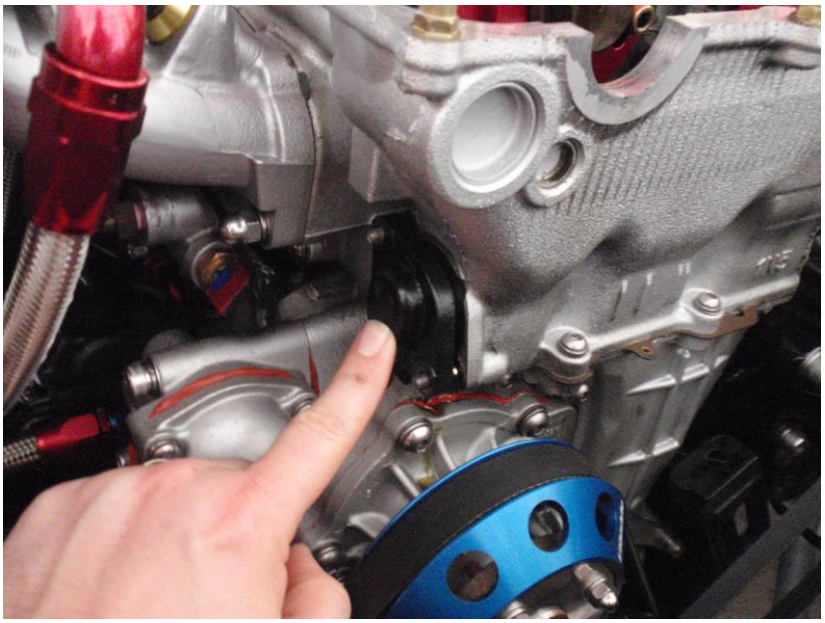


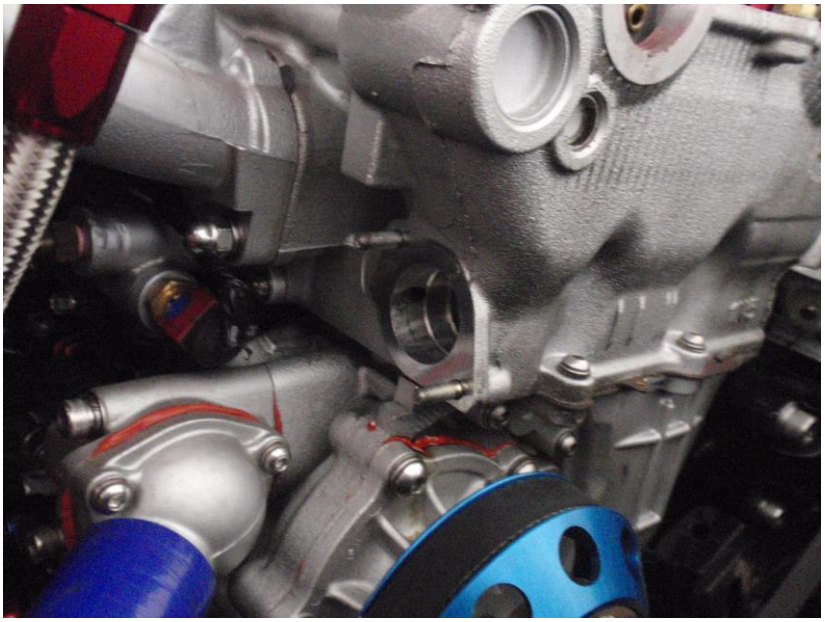
Mark the timing chain with a marker at the timing marks on the cams gears.



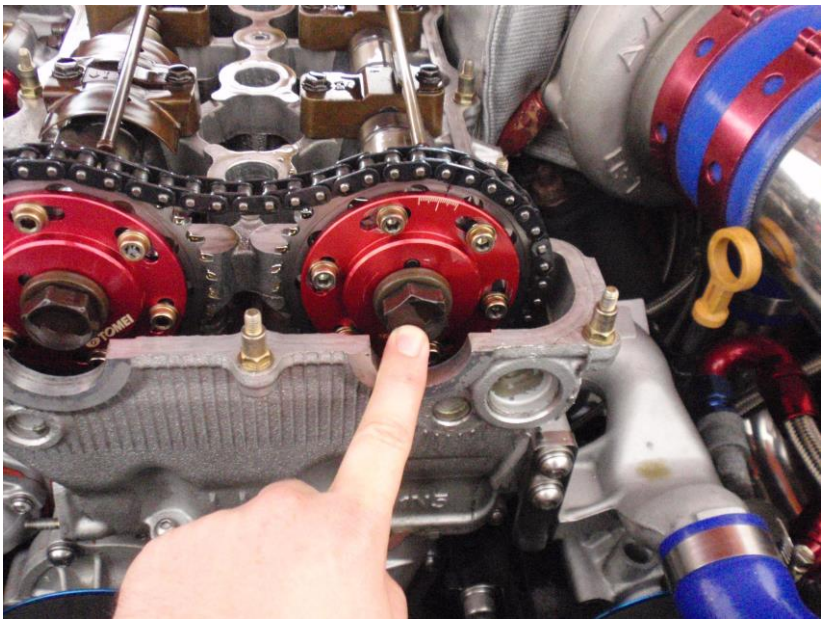


Remove the timing chain tensioner.

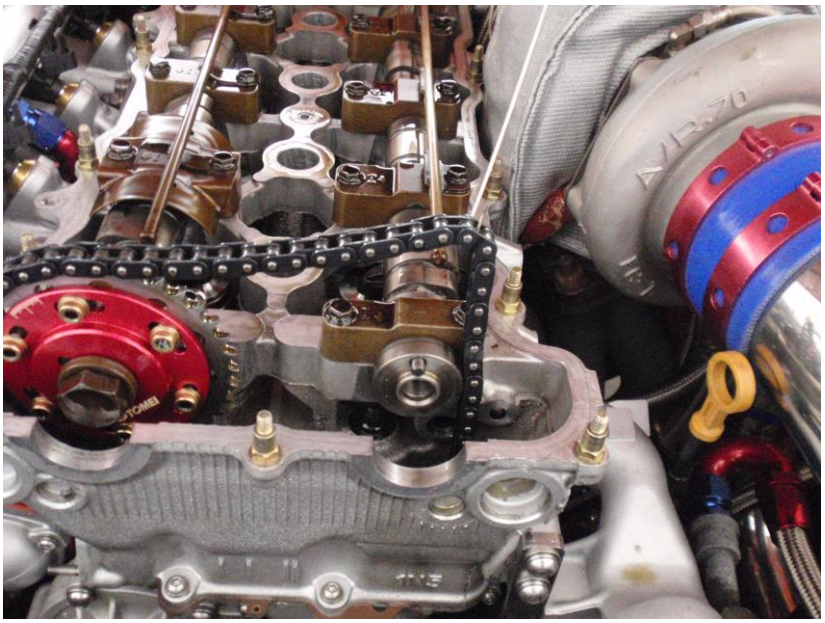




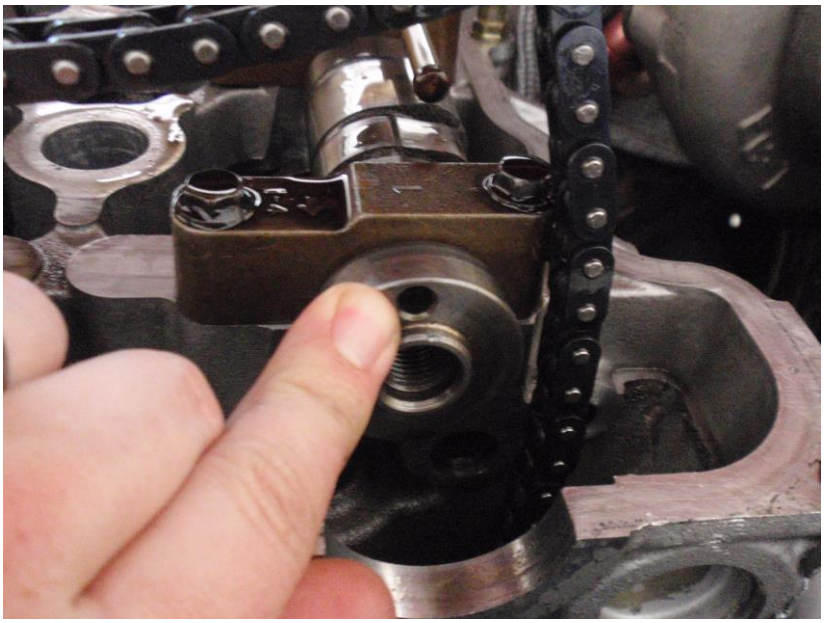
Remove the 24mm bolt from the front of the exhaust camshaft.



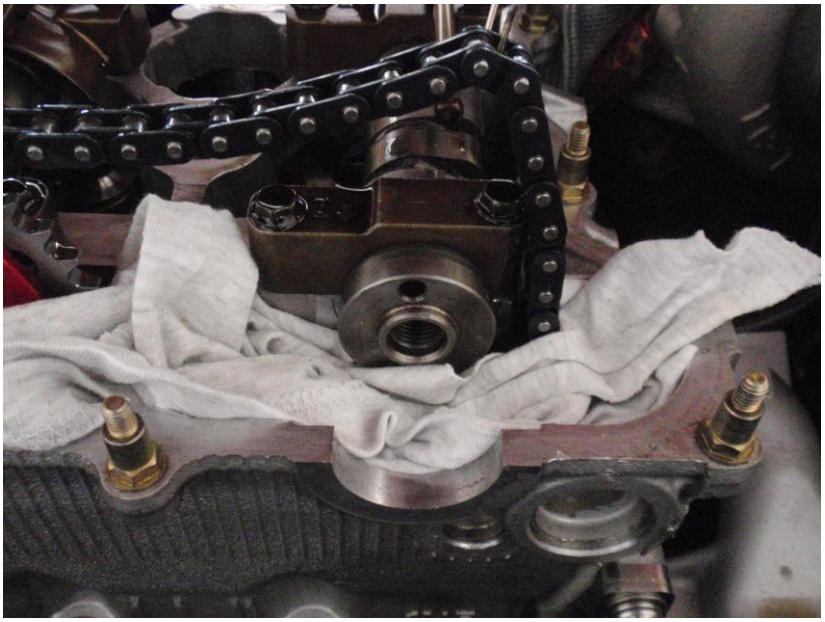
Remove the exhaust cam gear and support the chain. Do not let the chain drop.



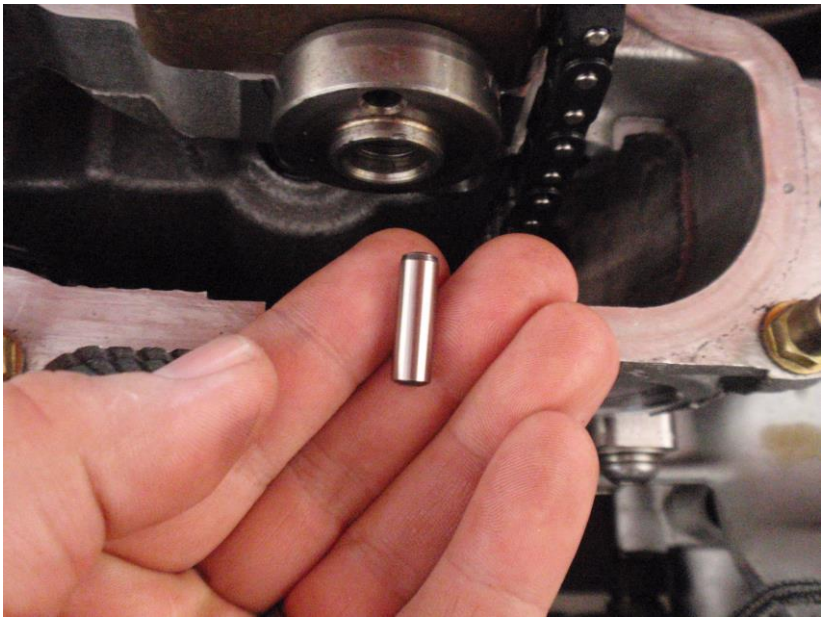
Remove the dowel pin from the exhaust camshaft.



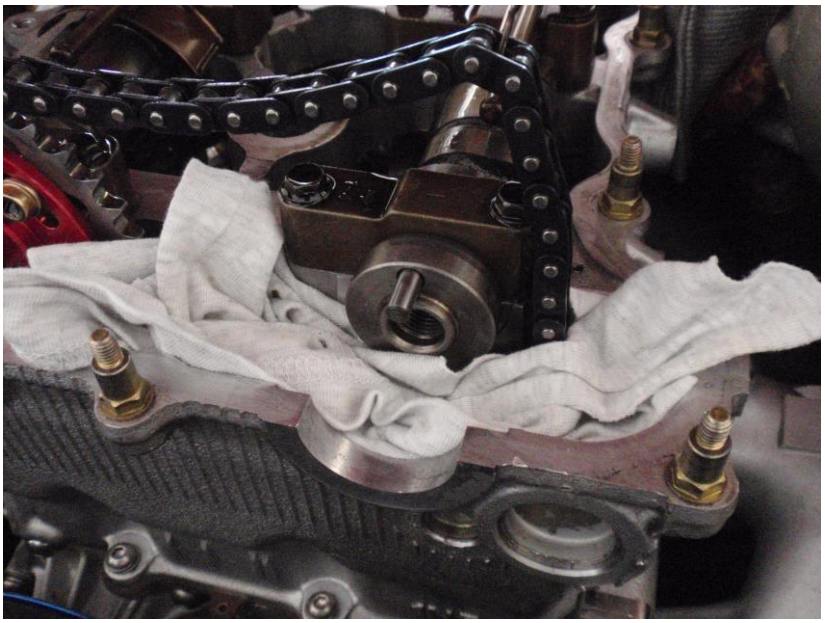
Place rags under the camshaft in case you drop the dowel.



Install the supplied dowel pin into the exhaust camshaft. Note that the tapered end goes in first, as pictured.



Installed.

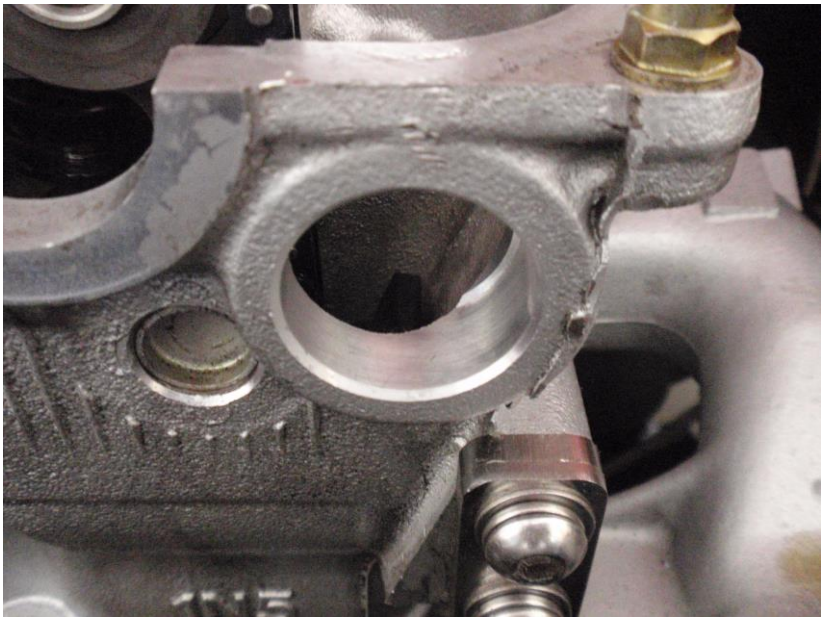


Remove the 30mm welsh plug from the front of the head. The plug needs to be pushed from the rear. This can be done very gently with large screwdriver (or similar) and a rubber mallet.

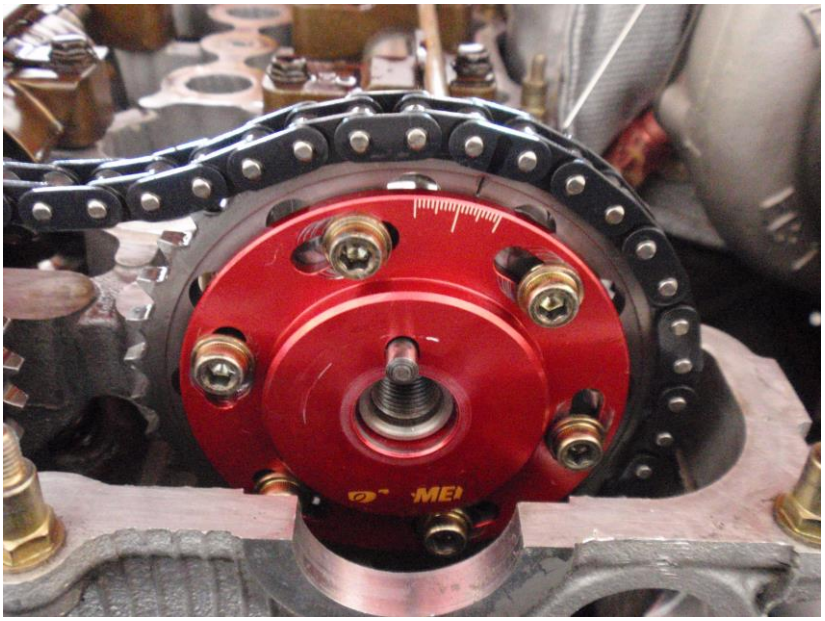
Removed.

Once the plug has been removed use some 1000 or 1200 grit sand paper to clean any residue out of the hole. Place a rag at the back to stop any dust or debris from falling into the motor.

Clean.

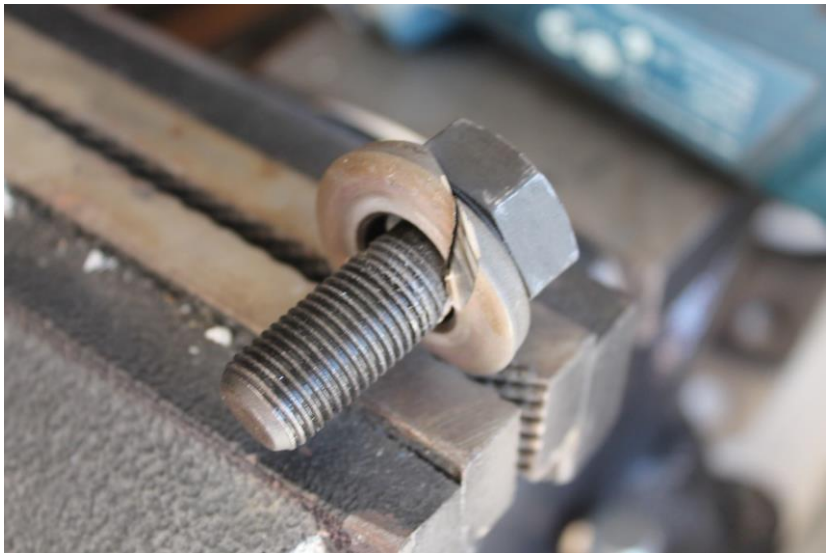


Install the cam gear & timing chain. Remember to line the timing marks up.



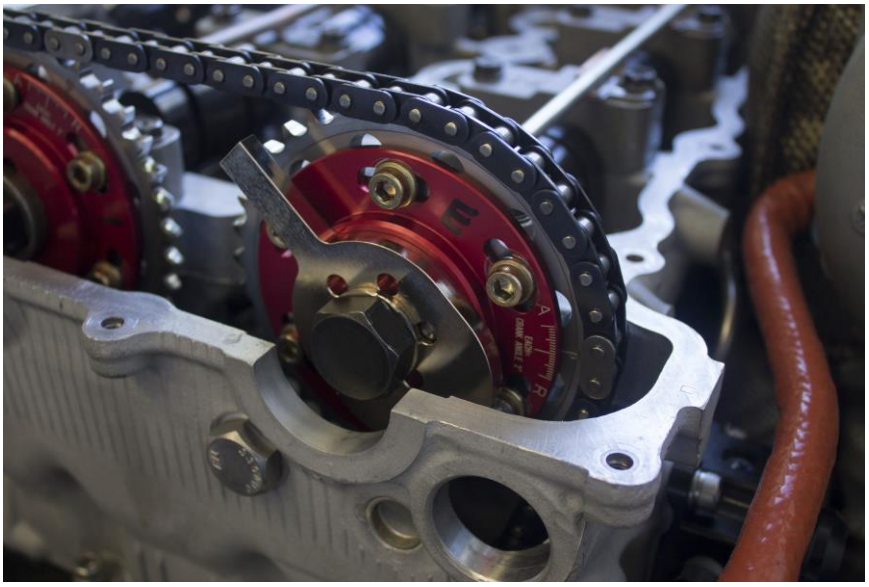
Using a thin cutting disc on a grinder slice the thick washer on the standard cam bolt as pictured below, be careful not to go too deep and into the bolt.

Flip the washer over and cut the same on the opposite side.

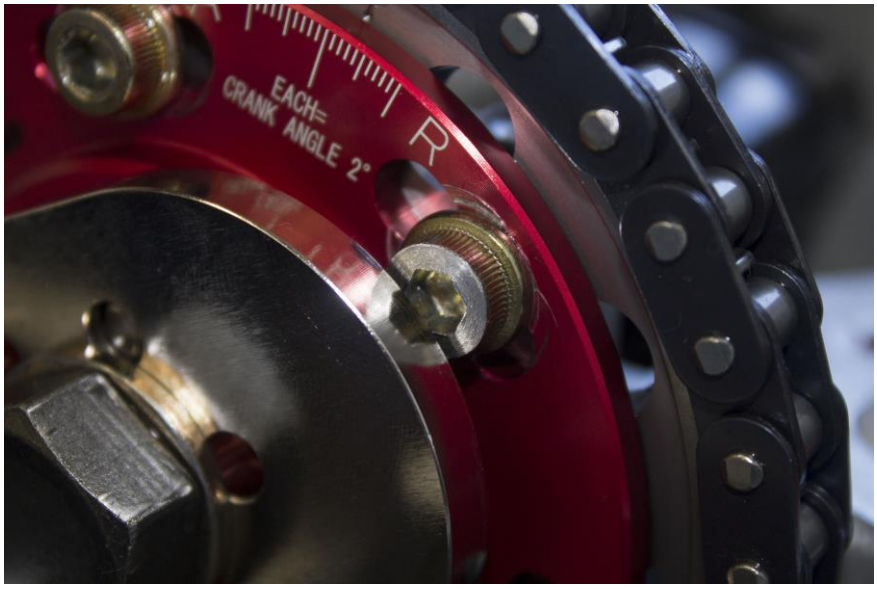


Use a cold chisel or flat blade screw diver and break the washer off. Once removed you will be left with just the bolt.

Using the supplied cam washer hand tighten the bolt to pull the trigger plate up against the cam gear. Any of the 6 dowel holes can be used, different holes will change the home/sync signal in relation to TDC, refer to your ECU manufacturer to see if they prefer a particular window for the home/sync signal to occur.

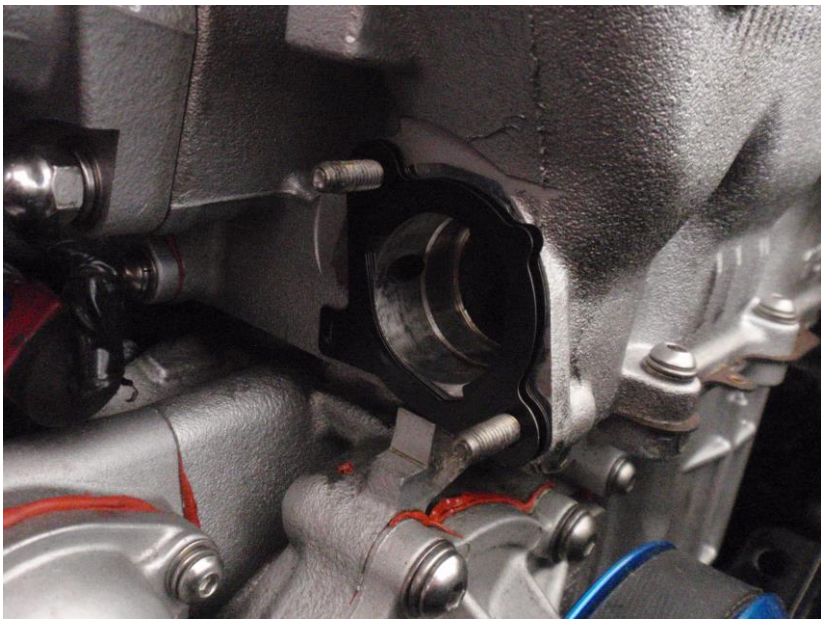


Check that you have clearance between the trigger plate and any of the adjustable cam gear bolts, if necessary machine down the bolt heads to provide a small amount of clearance.



Push the tensioner piston in and re-clip.

Install a new tensioner gasket.

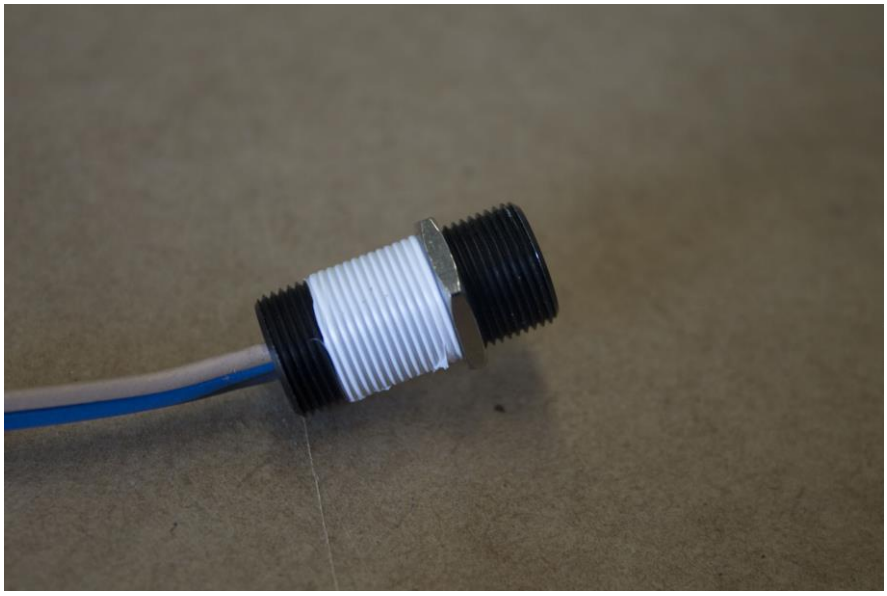


Install the tensioner.

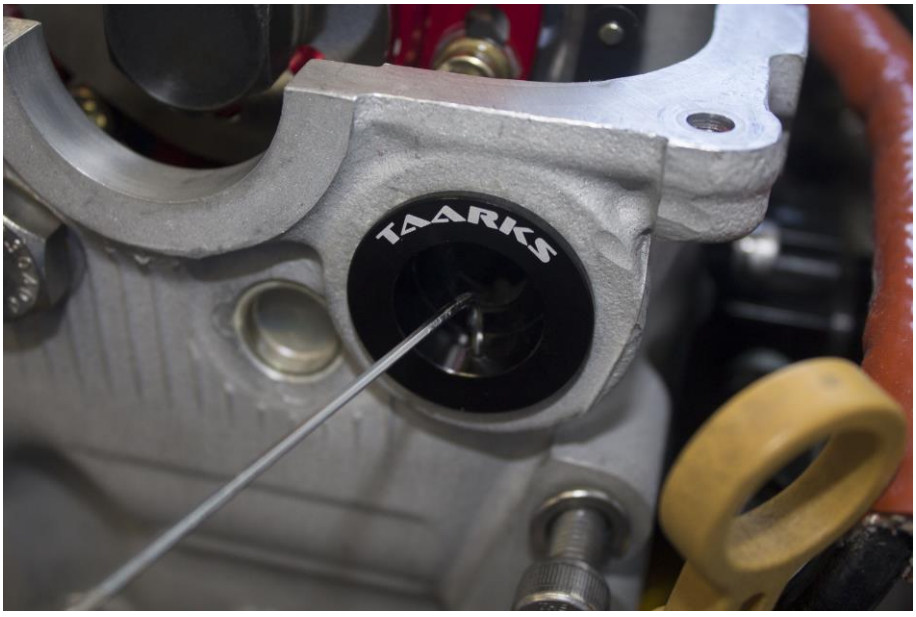
Wind the motor backwards from the crank bolt until the tensioner catch drops.

Wind the motor forwards until the tensioner is extended.

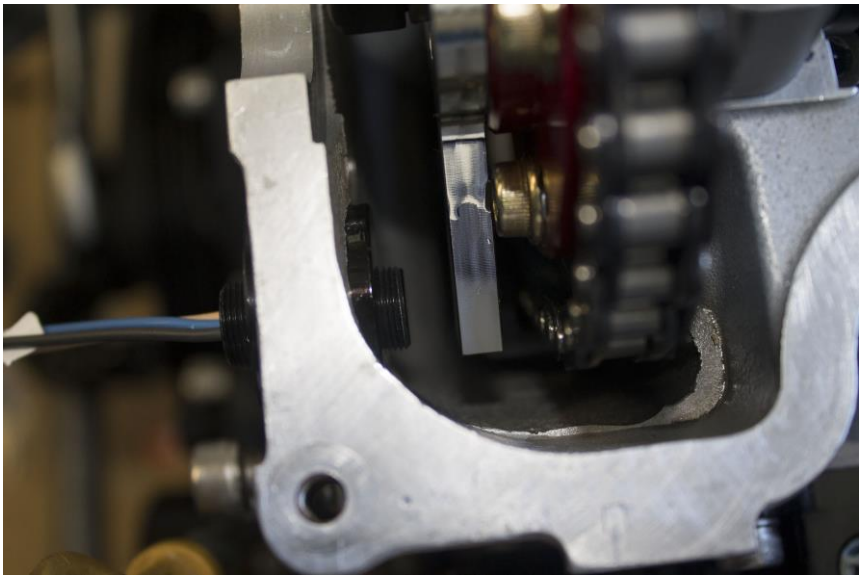
Apply 3-4 turns of thread tape around the sensor starting 10mm in from the end. Use the nut as a guide.



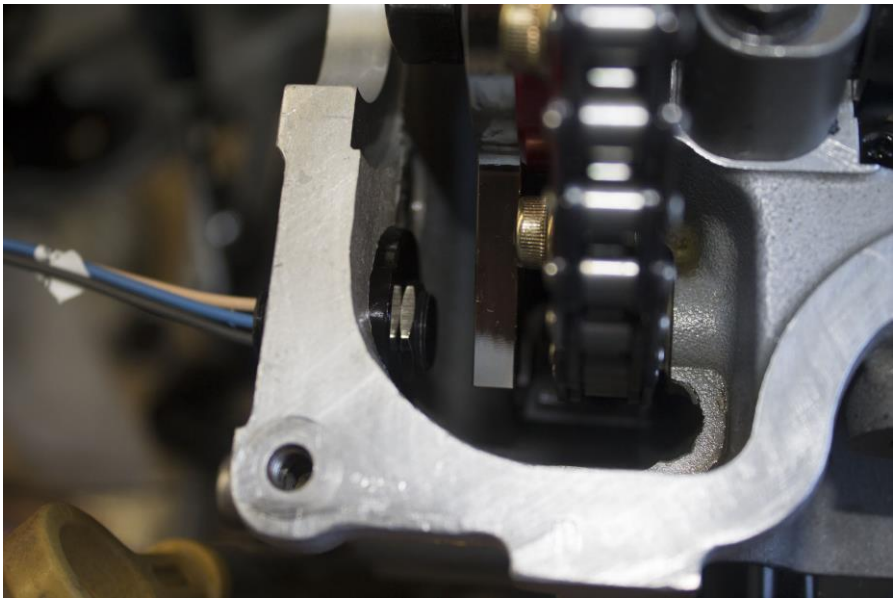
Install the hall sensor holder into the head and tighten the grub screw to secure it in place. Apply a small amount of oil to the o-ring to help it slide in.



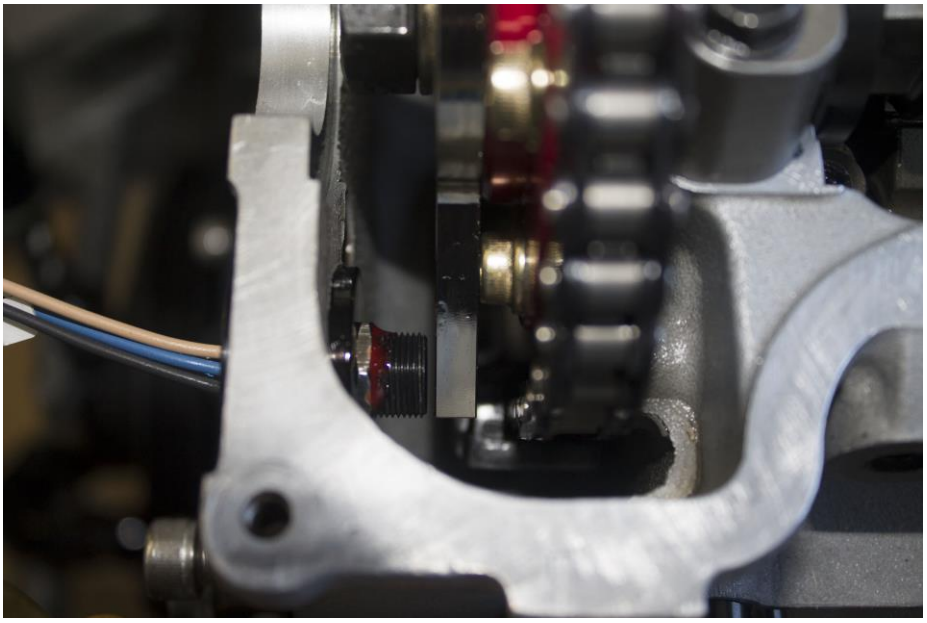
Install the hall sensor into the sensor holder. Leave about 5mm of the sensor sticking out.



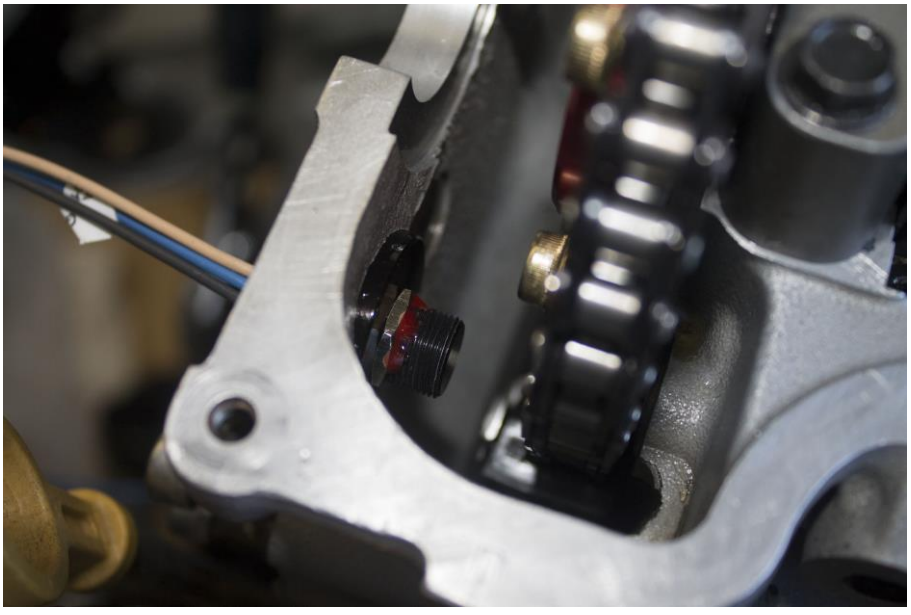
Install the locking nut onto the sensor, place some rags under the sensor in case the nut drops.



Wind the motor over so the trigger finger is in front of the sensor. Wind the sensor in so there is 1mm air gap.



Tighten the locking nut and apply a few drops of high temp Loctite to the threads of the sensor in front of the nut.



If you are using the P11 rocker cover a small part of the internal fins need to be ground down to clear the hall wheel. (P12 rocker covers do not need this done)

Once the fins have been ground down your rocker cover should look like this:

Ensure any metal filings are removed before re-fitting the rocker cover.

Sensor wiring:
Brown: 12v+ Filtered from ECU
Blue: GND
Black: Signal Output

And that's it… You're all done. Enjoy & and thank you for supporting TAARKS.