



**Thank you for your purchase of a PRe racing engine.**

We take great pride in the quality of our engine program.

All engines are hand-built and hand-blueprinted using a 2-step verification process.

Our goal is two-fold: 1) build the highest-powered Subaru engines in the world, and 2) build engines to last as long as possible. In order for these goals to be achieved, it is critical that the PRe racing engine be installed correctly by a knowledgeable professional. If you are replacing a failed engine, **any component from the original engine that had oil running through it must be replaced before installing the new engine.** Failure to replace these parts will immediately void any warranty claim.

**DISCLAIMER: You MUST exactly follow the instructions below and document that you have done so in order for any warranty claim to be considered and/or approved.**

## **NEW ENGINE**

### **FIRST-START INSTRUCTIONS**

- FILL ENGINE WITH 50/50 MIX OF WATER AND ANTIFREEZE
- FILL ENGINE OIL PAN WITH 10W40 MOTUL BREAK-IN OIL WITH HIGH ZINC
- ENSURE OIL PUMP ROTOR HAS BEEN PACKED WITH GREASE/LUBE
- ENSURE OIL PUMP RELIEF VALVE MOVES FREELY AND IS FREE OF BURRS
- DISCONNECT CRANK POSITION SENSOR TO DISABLE FUEL/SPARK
- CRANK ENGINE OVER WITHOUT SPARK PLUGS INSTALLED
- KEEP CRANKING ENGINE UNTIL OIL PRESSURE LIGHT TURNS OFF ON THE DASH (IT SHOULD GO OFF WITHIN 30 SECONDS OR LESS. IF IT DOESN'T, STOP CRANKING AND RECHECK EVERYTHING / CALL US FOR FURTHER INSTRUCTION. DO NOT RUN THE ENGINE IF THE LIGHT WON'T GO OUT!
- INSTALL SPARK PLUGS AFTER OIL PRESSURE LIGHT HAS CONFIRMED TO GO OUT WHILE CRANKING

- RECONNECT CRANK POSITION SENSOR



- BEFORE STARTING ENGINE FOR THE FIRST TIME, MAKE SURE THE PROPER TUNE/MAP IS LOADED ONTO THE ECU FOR THE APPLICATION
- START ENGINE FOR THE FIRST TIME
- MAKE SURE OIL LIGHT REMAINS OFF WHILE ENGINE IS RUNNING
- CHECK FOR LEAKS
- IF ENGINE HAS AFTERMARKET CAMSHAFTS THAT ARE NEW/NEVER RUN, HOLD RPM AT 2500RPM FOR 20 MIN TO BREAK IN THE NEW CAMSHAFTS
- MONITOR ENGINE COOLANT TEMP WITH SCAN TOOL AND DO NOT LET EXCEED 220F AT ANY POINT (SHUT ENGINE DOWN IF TEMP EXCEEDS 220F)
- AFTER ENGINE RUN TIME OF 30MIN AND COOLANT SYSTEM HAS STABILIZED, SHUT ENGINE DOWN AND ALLOW TO COOL FOR 30 MIN
- VERIFY COOLANT TEMPS ARE STABLE AND SYSTEM IS FREE OF AIR (TEMP SHOULD FLUXUATE BETWEEN 185F - 210F INDICATING NORMAL OPERATION)
- VERIFY NO LEAKS FROM ENGINE AND THAT COOLING FANS CYCLE PROPERLY BEFORE TEST DRIVE
- DURING FIRST TEST DRIVE, VARY RPM'S AS MUCH AS POSSIBLE, INTRODUCING LIGHT LOAD WITH LOTS OF DECELERATION (ENGINE BRAKING) DURING THE FIRST 50 MILES. THIS WILL INSURE RINGS SEAT PROPERLY.
- AVOID HIGH RPM OVER 5000RPM FOR THE BREAK-IN PERIOD (500 MILES)

- AVOID FULL BOOST FOR THE BREAK-IN PERIOD (SOME LIGHT BOOST IS OK-9PSI OR LESS)