Garrett by Honeywell Electronic Actuators

The REA (Rotary Electronic Actuator) and SREA (Simple Rotary Electronic Actuator) fitted to many VNT® turbos are complex, highly intricate controllers of the variable vane movement.

To ensure accuracy, each electronic actuator is carefully calibrated with the engine in order to achieve exactly the required turbo vane movement. This ensures that the correct power, torque, emissions and fuel economy targets are achieved, not only when the vehicle is new, but also over the life-cycle of the engine and vehicle components.

Unique Calibration

This calibration is the final process in turbocharger assembly and is replicated on every turbo, using a computer controlled turbine flow-bench. As such, the calibration settings remain unique to each turbo.

Here are just a few of the questions we are frequently asked about our electronic actuators:

Q. Are the electronic actuators interchangeable?
A. No. Firstly, there are many variants of REA and SREA – even though they may all look almost the same! Secondly, REA & SREA should never be interchanged from one turbo to another, even when from the same turbo part number….in fact just loosening the three actuator retaining bolts will take the calibration outside of specification. This may lead to conflicts with the engine management system or put the vehicle into low power/safety mode.

Q. What about changing a damaged actuator cap?
A. Unfortunately, these parts are not service-replaceable. Again, there are many different versions of the cap (or cover assembly) that look the same externally. Also, for the reasons outlined above, each turbo is calibrated individually and this very precise process means that the electronics contained within in each cap are programmed specifically for that unit.

Q. Is every turbo tested to OEM specification?
A. The results of every calibration are recorded against the serial number of the turbo, which gives the buyer of genuine Garrett by Honeywell VNT® REA/SREA turbos the confidence to know that the turbo has been tested and will perform to OEM specifications.

Turbochargers NZ Ltd are a Garrett Authorised Centre (GAC) and follow Garrett procedures and policies. If you have any questions about turbochargers and/or policies regarding turbochargers and their repairs please feel free to contact us on the below contact details.

Please ensure you follow the correct procedure according to the installation sheet provided with your new Garrett turbocharger to ensure safe and trouble free motoring.