

Replacing the Actuator for Ford 6.4L Powerstroke V2S and HP Turbos

Application Ford 6.4L Powerstroke V2S and HP Turbos

Solution This Rotomaster turbocharger is equipped with a new style electronic actuator. This Compact Brushless Actuator (CBA) replaces the original SRA (Smart Remote Actuator) and offers the same performance and packaging as the original SRA, but with many other advantages. This tech tip explains the difference between SRAs and CBAs as well as the steps you need to take to install the CBA.

SRA vs. CBA Style Actuators

The original SRA has been discontinued and is no longer available for the Ford 6.4L Powerstroke V2S turbo systems sold between 2008 and 2010.

In addition to the same performance and packaging, the CBA offers many benefits:

- Newer design
- More compact design
- Higher torque capability
- No water cooling requirement
- Higher temperature capability

Step 1: Remove Coolant Pipe Routing

The new CBA retrofit does not require water cooling as the original SRA did. The existing coolant lines can be rerouted to bypass the actuator and complete the cooling circuit without modification.

Action Step: Remove the actuator coolant block and the short hose that went from the old actuator coolant block to the reservoir.



This photo shows the original actuator and coolant line arrangement.



This photo shows the new actuator with the coolant line rerouted directly to the coolant reservoir. The coolant block is attached to the original SRA and the short hose that connects the coolant block to the reservoir (no longer being used). The shielded hose (marked with the green arrow) moves from the coolant block connection to the reservoir connection.

Step 2: Calibrate CBA

There is no external calibration procedure required for the new retrofit CBA. The new actuator automatically calibrates the first time it is powered up.

Action Step: Turn the vehicle on to power up the actuator and rev the engine to a safe position at 20% of full travel. At this position, it will wait for the ECU to provide information that allows the actuator to execute a full span sweep to learn its limits.



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