

## CHRYSLER 3.6 PENTASTAR 2012-2015 COOLING SYSTEMS

### SUMMARY:

It has come to our attention at Sprintex, that Chrysler vehicles equipped with the Pentastar 3.6 V6 engine require special procedures to satisfactorily fill and bleed the engine cooling system.

For proper operation of the vehicle, and to achieve the expected power uplift and acceptable driveability with Sprintex Tuning, it is essential that the engine cooling system be properly filled and bled.

Chrysler maintenance instruction recommends a 20 point procedure to properly fill and bleed the cooling system in these vehicles. **This includes use of a vacuum bleeder to fill the system.**

### ATTENTION!!

**It is important to use the correct coolant specified for the vehicle.** Please note that the specification changes from year to year for Chrysler, Jeep and Dodge vehicles.

In the event that a vacuum bleeder is not available, it is possible to successfully fill and bleed the system, but this is time consuming and must be completed.

#### Step 1:

Upon initially filling the radiator with coolant, it will be necessary to loosen the bleed valve located on top of the thermostat housing. When the air bubbles stop, close the valve and complete the fill process.



#### Step 2:

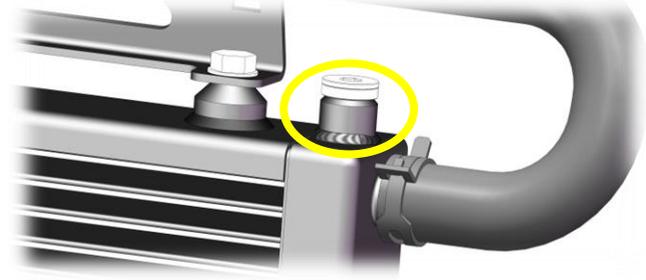
Upon starting the engine for the first time, the heater must be set to the highest temp setting and the fan turned on high. After the engine has run for five minutes or so, the radiator fan will come on and fan speed will slowly increase until it reaches full speed. At this point it can be noted that the heater still blows cold, the top hose and radiator may also still be cold. This is because the engine block has reached high temp and the fan is ECU controlled.





**Step 7:**

Ensure that the bleed plug is removed from the top of the intercooler radiator whilst filling the system. Allow any air and bubbles to be expelled before installing the plug.



**Step 8:**

Leave the plug loose while adding more coolant, until coolant with no bubbles escapes through the threads of the plug. Then tighten the plug.

**Step 9:**

A short section of 5/8" heater hose will push neatly into the intercooler filler, allowing a small funnel to be placed in the top of the hose. This will provide some 'head' to assist in bleeding the system.



**Step 10:**

Maintain coolant in the funnel and work the intercooler hoses (squeeze manually) to help the air escape through the coolant in the funnel.

**Step 11:**

Leaving the funnel attached with coolant in while idling the engine for 10 minutes or so will also expel more small air bubbles. The pump only runs for a few seconds when the key is turned on but the engine has not been started, so idling is more effective.

- Careful attention to the above will ensure the engine cooling system and the intercooler system are both fully bled and provide the best results from the Sprintex supercharger installation.
- Failure to ensure the above will result in poor performance and may cause engine damage and / or coolant leaks.
- Re-check both the engine radiator and the intercooler system for coolant level after 20 to 40 miles of driving and top up as necessary.

For any further questions or information on the procedures shown above, please contact us:

Australia : +61 8 9262 7277 or [technical@sprintex.com.au](mailto:technical@sprintex.com.au)

USA : +1 855 591 2778 or [technical@sprintexusa.com](mailto:technical@sprintexusa.com)