



## **Rogue Engineering E46 M3 Power Pulley Installation Directions (includes 01-04 S54 M Coupe/Roadster)**

Thank you for purchasing the Rogue Engineering S54 M3 Power Pulleys. Please seek professional help for installation if you are unsure about the procedure listed below.

### **Included Parts**

- Two (2) Rogue Engineering Power Pulleys
  - Replacement water pump pulley
  - Replacement power steering pulley
- Replacement Belt
- Two (2) spare rivets

### **Recommended Tools**

- Metric sockets and ratchet
- Small flat bladed screwdriver
- Torx drivers
- Fan clutch wrench (and water pump wrench)

### **Installation Notes**

Directions shown are specifically for the 2001-04 E46 M3. Installation of pulleys may vary slightly for 01-02 S54 M Coupe/Roadster.

Begin the installation of the pulleys by removing the four (4) expanding rivets that secure the top cover. Using the end of a small, flat bladed screwdriver, pry out the center of the rivet, and then remove the body of the rivet. You will reuse these expanding rivets.

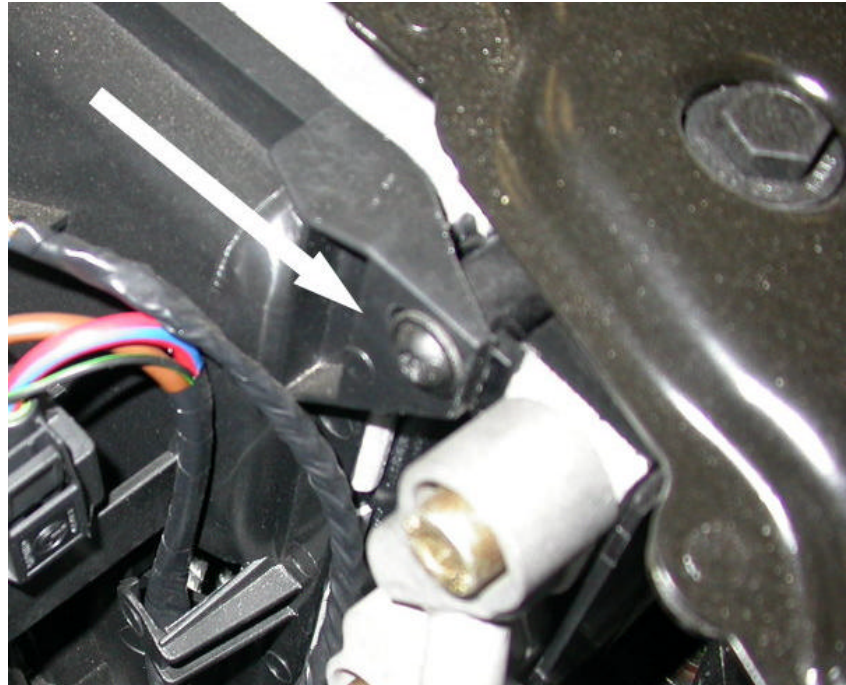


Remove the air duct that connects the upper cover to the airbox.



Begin fan shroud removal by taking out the **four (4)** torx bolt located around the outside perimeter of the shroud. A few of them are obvious in location whereas the access to the remaining torx bolts requires removing the front underpanel of the bumper, for removal.

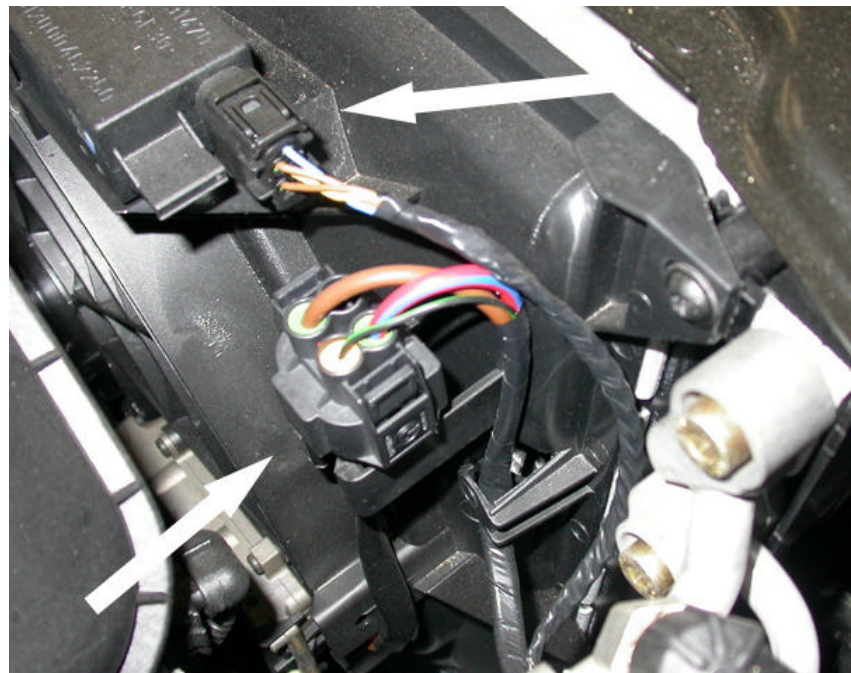
There are also reusable expanding rivets that must be removed. Two (2) spare rivets are included in the event of breakage.



Disconnect the two wiring connectors plugged into the fan shroud.

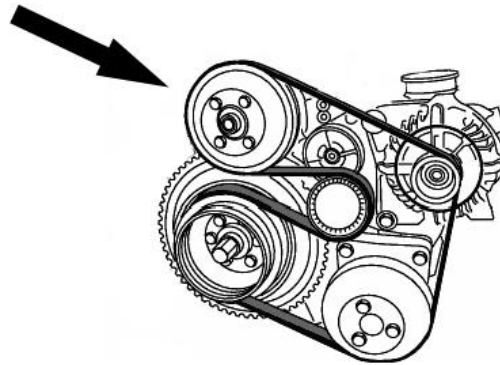
Loosen the fan clutch attached to the front of the water pump. This requires use of a thin 32mm wrench and even a water pump wrench (to prevent the water pump from spinning).

**NOTE THAT THE FAN CLUTCH IS A REVERSE THREAD!**



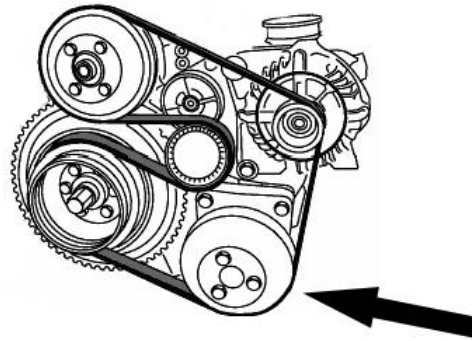
Using a 10mm socket and ratchet, **loosen** the four (4) water pump pulley bolts.

***Do not remove bolts or water pump pulley at this time! Only loosen them!***



Using a 13mm socket and ratchet, **loosen** the three (3) power steering pump pulley bolts.

***Do not remove bolts or power steering pump pulley at this time! Only loosen them!***

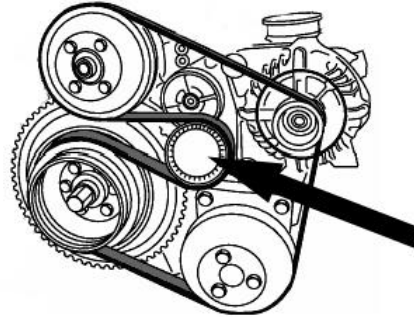


Indicated by the arrow, the tension roller holds tension on the entire pulley system.

Removing the cap from the tension roller will expose a torx bolt, which can be used to relieve tension on the pulleys.

Once tension is relieved, remove the drive belt from the pulleys.

You must remove the A/C auxiliary belt in order to remove the drive belt. Relieve the tension on the auxiliary belt tension roller to do so.



Once the drive belt is removed, remove and factory pulleys from their locations. Be sure you mark the drive belt and it's original direction as it must be reinstalled in this direction should you decide to ever replace the factory pulleys.

Install Rogue Engineering Power Pulleys, using factory bolts. Tighten to no more than 10Nm (7-8 lb. Ft).

Using supplied drive belt, reinstall drive belt onto pulley system, making sure that it is correctly routed.

Reinstall auxiliary belt.

Reinstall fan.

Before installing the top cover, start the car and let it run to make sure the belt is properly seated and does not fall off. Turn on the A/C to verify that the auxiliary belt is also functioning properly.

Once satisfied, turn off car, reinstall top cover, and test drive.