

# THE WATER BOTTLE TEST

Belt noise is a sign that something is wrong with the accessory drive belt system. With a few quick and easy steps (and a water bottle), you can identify the two types of belt noise and the solution for both!



## Is it a Chirp?

A chirp is a sharp, high-pitched, repetitive noise of short duration, usually worse at low engine speeds (idle). As belt speed increases, the belt noise may blend into one audible noise, but most likely diminish in intensity such that it won't be detected. Most chirp noises occur as a short belt span enters into a grooved pulley, typically after exiting a backside pulley.

- To identify the cause of the noise, spray the rib side of the belt with water. If the noise diminishes or goes away, then returns once the belt dries, the belt noise is a chirp, indicative of a misalignment issue.
- Additionally as the belt speed increases, if pitch and volume stay consistent, this would also be indicative of a misalignment of the drive.

## Is it a Squeal?

A squeal is a high pitched noise, typically lasting several seconds in duration. This type of noise will typically increase in volume as the engine speed increases, and is caused by relative slip between the belt and pulleys.

- To identify the cause of the noise, spray the rib side of the belt with water. If the noise gets louder, the belt noise is a squeal, indicative of a tension issue.
- A change in squeal volume with acceleration or added accessory load would also be indicative of a tension issue.