

Servo vs. Anti-Servo Trim Tabs

The issue of whether you have a servo trim tab or an anti-servo trim tab on your conventional airplane's pitch control is, for many, semantics. Yes, they work differently, but that difference is mostly transparent in the cockpit: Trim the nose down, and the nose pitches over slightly. From the pilot's perspective, they work the same way. Most of the time.

It's only important to know what kind of trim tab you're flying during pre-flight—when you want to verify operation and security—and when the primary pitch control fails. In the latter case, you'll want to trim the servo tab (upper image at right) opposite the direction desired. The servo tab will be your primary pitch control, and to deflect it up at its trailing edge, and therefore raise the airplane's nose, you'll want to trim nose-down. The servo trim tab is used on popular aircraft like Cessna's 172 Skyhawk.

When flying an anti-servo trim tab (e.g., Piper Cherokee, lower image at right), use same-direction input in a pitch-control emergency, since this design works opposite the other.

But you'll figure all that out when you first apply trim: If the primary pitch control fails, and you apply the trim in the wrong direction, apply it in the other direction.

Finally, to help you understand the difference, look again at the two images above. They both depict nose-down deflection.

