

PROCEDURE 6.160 BALANCE ELEVATORS

In this procedure...

You will determine the amount of weight required to balance the elevators and bond that amount of weight in the counterweight area of the elevator.

Step 1. Set up a balance fixture.

Use the side of a bench and attach points that you can place the elevators hinges on which will allow the elevator to rotate freely through a 45 degree arc.

Step 2. Determine Weight Requirement

The elevator should be balanced after it has been painted and with the trim tab and trim tab servo installed. Add weight to the counterweight area until the elevator is in balance. You need to make sure that the elevator rotates freely on its axes. If you have not put the final coat of paint on your control surface you can add addition weight and recheck the balance after you have painted the control surface. If you have too much weight you can drill out the lead to obtain the correct balance.

It is recommend that you use a lead shot to balance the control surface. Hot glue a cup on the counter weight area and fill the cup with lead shot until the elevator is balanced. Mix the lead shot with T88 two part adhesive and poor the shot into the counter weight area. Sit the elevator up on the end so the lead shot goes to the front of counterweight area. Let the adhesive cure. Seal off the counter weight area and bodywork and paint the elevator.

