

Setting up Ailerons and Flaperons on a DLG (Discus Launch Glider) by Andy Kunz

Originally Posted by kgantz:

While waiting for parts to be delivered I am still reading a lot about how to initially set up ailerons / flaperons. One of the best descriptions I've found is [this post](#) in the DLG forum.

After reading this post, I understand that flaperon trim and aileron trim are handled separately by the radio. This is not obvious to people who have not done this before but, I guess because you are working with 1 moving surface but it has 2 jobs, trimming has to work a little differently for each job! So now my question is, on the Spektrum radios-- DX 9 in my case, is the aileron portion of the adjustment done with Dual Rates as suggested by the poster or is there a different way.

Reply by AndyKunz:

The logic is that one is a roll trim, the other is a camber trim. You'll find that we're pretty consistent with that sort of thing throughout the radio.

Use the Dual Rates to adjust travel based on a switch, for instance in launch mode vs. thermal mode vs. landing mode. If it doesn't need to change based on a switch, do it with Servo Travel instead of Dual Rates.

If you are working on a V-Tail or Elevon model, then you would use Dual Rates to adjust the ratio between pitch and roll/yaw.

Use Servo Travel to adjust the maximum amount in the highest position of the Dual Rates switch. But before you do there, try to adjust it first mechanically using the positions on the servo output horn and surface control horn.

The reason for this technique is that you want to keep the math using the largest values it possibly can, as long as it possibly can. You reduce things only at the servo when at all possible.

Andy

Reply by Sherman Knight:

There are three different portions of the programming that affect what you are looking for.

1. Servo settings are settings that affect Both ailerons and flaperons. Sub-Trim. End points, absolute travel and so on. Do not use these function to set how much throw or differential.

2. Ailerons are adjusted with Dual rate and differential when using the right stick.

3. Camber System is used when you want to use the two ailerons like flaps or flaperons with the side sliders or the flap stick.

Treat aileron adjustments and flaperon adjustments like separate systems. The radio will do all the blending in the background.

Sherman Knight
Team Horizon Hobby Sailplane