Procedure for the **RDS8000** and **RD8000** to obtain Dual Ailerons, Dual Flaps controlled by the Flap Stick, Aileron to Rudder mixer, Flap to Elevator Compensation, and a Flight Mode Switch to select Camber, Launch and Thermal positions of the Ailerons. Setup was developed for use with the ESPANDA RL(x-tail), ERASER EXTREME(V-tail) and similar type high performance sailplanes. The Advanced Menu is used for programming. Values shown in setup were used for changing the original model setup from a STYLUS to the RDS8000 type units. Your values most likely will be different. Use those shown as trial values.

Select **etc:** Scroll down using the Down Function key to C-MIX 1 and set MAS as TH and SLV as 8 using the INC+/YES key. Make T>8 = 121% as a trial value. C-MIX 2 is not used. Make sure there are no values shown. Default is E>E.
Scroll down to FLAPE and make it ACTive using the INC+/YES Key. Press END key.

Select **EL** Channel: Set TRM 0%, REV to REV, D/R at 100% for D/R 1 and 55% for D/R 2, EXP 0%, CNT 30%, EPA 100 % for both UP and DN, E>F is 0%.

Select **AL** Channel: Set TRM 0%, REV to NOR, D/R at 120% for D/R 1 and 80% for D/R 2, EXP 0 %, CNT 4 %, EPA 100 % for Right Aileron and 40% for Left Aileron, A>R 39 %.

Select **TH** Channel: Set TRM 0% and **never change** since it would only trim one Flap. REV is REV, CNT to –55%, EPA with TH (Flap) stick in Low is 100 %, and at High 137 %. T>E is –29 %, T-CUT 0%.

Select **RU** Channel: Set TRM 0%, REV to REV, CNT 9 %, EPA 100% for both Right and Left stick, R>A 0 %, R>E 0%.

Gear Channel is used for connection of battery power. Default settings are OK.

Select **P-F** Channel: Set TRM 0 %, REV to NOR, CNT –17 %, EPA is 31 % with the 3-position Flight Mode Switch towards you, and 15 % away from you, F>E is 30 %.

Select Channel **7**: Set REV to NOR, CNT –100 %, EPA 0 % with AUX 1 switch both UP and DN,

Select Channel **8**: Set REV to REV, CNT –82 %, EPA 113 % with AUX 2 switch DN and 100 % with the switch UP. Note values are approximate. Change these to get equal throws for both Channel #3 and #8 FLAP servos.

NOTE: Place the AUX 1 Switch in the upward ON position and <u>never</u> change it. Place the AUX 2 Switch in the Down OFF position and <u>never</u> change it.

I taped over these to make sure these two switches can NEVER be accidentally moved anytime the sailplane is on.

Channel Outputs: Channel #1 Elevator, #2 Left Aileron, #3 Left Flap (TH), #4 Rudder, #5 Not used, #6 Right Aileron, #7 Not used, #8 Right Flap. Ailerons are in the Launch position with the 3-position Flight Mode switch towards you.

Note: The 3-postion Flight Mode switch can be moved to the more conventional place on the Left side of the transmitter by following the instructions on page 77 of the RDS8000 Radio System Operating Manual. It is pre-wired to do this.

I adjust the away position on the 3-position switch for a clean airfoil, the middle position for camber on ailerons (1/8 inch at tip), and the position toward you for launch on ailerons (3/16 inch at tip). There is no reflex setting. Modern sailplane designs can do amazingly well with a bit of down trim to move around.

When launching, I have the Aileron Dual Rate switch on High, which provides additional Aileron to Rudder mixing to obtain a simulated Rudder Dual rate. I pull the flap stick down slightly so that there is probably 1/4 inch more flap then aileron, with the 3 position toward me. I fly the right stick up tow. At the top, after building tension, I throw the flap stick forward and aileron switch away at the same time. It sounds cumbersome, but actually works quit well. When I hit lift and want camber, I put the 3 position in the middle (slight droop of camber, and pull the flap stick ever so slightly.. you now have a cambered wing for thermal. When I want the wing clean, I throw the 3-position switch away and the flap stick all the way up.

Landing is easy, as you can mix some down elevator into the flap (throttle) for constant descent.

This set up works well for 2A2FRE sailplane flying. It is by no means the competition sailplane radio, but at the affordable price, allows the owner to be quite competitive with it. Classify as a sport/competition radio. It can be flown VERY competitively at the local club level!

Enjoy,

Skip Miller 1st RC Soaring World Champion

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