



SuperECO Autopilot

ROLL Special Adjustment Procedure

If you are having problems with heading oscillations please try the following procedure, step by step.

Step 1:

1 Remove your pitch trim tab or electrically disconnect your pitch servo (don't want to activate this servo yet, just work with roll).

Service mode Password 0

2 Power on the SuperECO and apply power to the servos (No autopilot activation yet)

3 Airplane should be in trim for both roll and pitch, Flaps retracted. Normal cruise

4 Press L key and on page 1 adjust Roll Trim to the left (-100)

5 Do you feel left pressure on your stick? How much pressure?

The force here should be strong, but you should be able to continue flying your airplane, even land.

6 Do the same to the right (+100)

If force is good, go to the next step. If not, need to increase the size of trim tab.

DECREASE SIZE IF TOO MUCH FORCE.

If satisfied, then go to next step.

Step 2:

1 Service mode 2 and airplane in trim (SuperECO roll trim values should not exceed 20 on either side).

2 Select L key, page 3 to prepare to adjust **Roll Servo Gain**.

3 Press the Autopilot disengage button for 3 continuous seconds to activate the autopilot. Alternatively, you can also R key and LEVEL

4 Ignore heading, only supervise roll in relation to the attitude indicator. Do a stick input to the left. AP will level wings back within 2 seconds. You may look at the SuperECO artificial horizon. Adjust **Roll Servo Gain** on page 3.

5 Try to the right too. Should be similar (one side is always faster than the other). There should be little or no overshoot.

7 You can also adjust **Roll Gain Balance** (Page 2) if there is a big difference in feeling from right than from left.

8 Press AP cancel button momentarily to disengage autopilot. Alternatively you can also R key and OFF

If good, go to the next step:

Step 3:

1 L Key, Page 4 (We are still on **Service mode 2**)

2 Set the following:

GAIN flying straight: Set to 12

GAIN when turning: Set to 12

(Never set these gains to zero)

3 Airplane should be in trim now.

4 Press AP cancel button for 3 seconds to activate the autopilot. Alternatively, you can also R key and LEVEL

5 Airplane should be following a heading. Adjust **GAIN flying straight**: Be patient, things happen slowly here (wait a couple of minutes observing heading). If fast hunting for the heading (overshooting) then decrease gain. If it slowly goes pass the heading and then tries to slowly come back, increase gain.

6 If the airplane is satisfactorily following the heading, then you can try turns.

7 Turn 30 degrees to the right using the heading bug. The airplane should swiftly turn at a standard rate (yellow bar at the bottom reaching the vertical yellow limit line).

8 Adjust **GAIN when turning**.

Finally go to Service Mode 0 and try your autopilot.

Revision History:

Manual: SuperECO ROLL special calibration procedure

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