ATR Throttle Calibration Quick Guide

Throttle Calibration

1) On the OPTIONS page of the EFB, click the Throttle Calibration button



2) Depending on the hardware you have available, choose either "Single Axis" or "Dual Axis" and select whether you want the reverser range to be mapped to your throttle axes. The best feeling of immersion is certainly achieved with "Dual Axis" and reverser axis are selected.



- 3) Move your throttle levers to the position that you want to use as "Ramp".
- 4) Move your throttle levers to the position that you want to use as "Notch" (the other aircraft manufacturer in the same facility in Toulouse calls it "Detent") and click the "Notch SET" buttons.
- 5) Move your throttle levers to the position that you want to use as "Idle" (if the reverser axis is disabled, this would be full back) and click the "Idle SET" buttons. The idle setting is only available if the reverser axis is enabled. If it's not enabled, the minimum throttle position will be used as idle.
- 6) The "Ramp Tolerance", "Notch Tolerance" and "Idle Tolerance" fields are used to define a range where the throttle is considered to be in the Ramp, Notch or Idle position. The less "secure" these positions are on your throttle controllers, the larger they should be. The current valid range for both is 100 2000.
- 7) Click OK to save the calibration settings.

How the throttle works:

- Max Power: Full forward. In this position, the engine produces full power up to 115% torque
- Ramp-Max Range: Between (Ramp + Ramp Tolerance) and Max Power.
- Ramp: Between (Ramp Ramp Tolerance) and (Ramp + Ramp Tolerance). In this position, the engine produces 102% Torque. The ramp is no real detent but an actual little ramp which causes additional resistance and requires the pilot to push harder to get move the throttle into the max power position. Since there's no way to change the lever resistance, it's technically implemented as a detent here.
- Notch-Ramp Range: Between (Notch + Notch Tolerance) and (Ramp Ramp Tolerance)
- **Notch**: Between (Notch Notch Tolerance) and (Notch + Notch Tolerance). In this position the torque produced by the engine is controlled by the power management system.
- Normal Thrust Range: Between (Idle + Idle Tolerance) and (Notch Notch Tolerance)
- Idle: Between (Idle Idle Tolerance) and (Idle + Idle Tolerance). In this position, minimum torque is produced.
- **Reverse**: Between Max Reverse and (Idle Idle Tolerance). In this position, the propeller blades are set to reverse thrust position.

Axis Options and Control Inputs

- If "Single Axis" is selected, the input from the THROTTLE AXIS and THROTTLE 1 AXIS events are mapped to both throttle axes.
- If "Dual Axis" is selected, the input from THROTTLE 1 AXIS and THROTTLE 2 AXIS are used for the respective axes.
- THROTTLE AXIS (0 TO 100%) and THROTTLE n AXIS (0 TO 100%) are not supported.

