

Boeing-Lear Performance Data Computer System for the TinMouse II v1.30

B737-200 ADV Aircraft Simulation for Microsoft Flight Simulator 2004 and FSX.

Programming by Bob Scott and Richard Probst for the TinMouse II Project.



1. Start by rotating the mode switch to STBY.

2. Press Page --> You will see page two, and at the bottom, the engine variant is displayed. In the TinMouse II, the engine variant is set in the aircraft.cfg file. Default is JT8D-17R, but by placing the text JT8D-15 or JT8D-9 into the title= line of a particular aircraft, the engine performance in the flight model and its associated data is changed. In this example, the JT8D-9 is selected.



4. Press PAGE -> again, and you will see the self-test page and a white light in the center of the ENGAGE button.

5. Press ENGAGE to enable the self-test and activate the PDCS computer for use. The most common “gotcha” with the PDCS is not cycling through the three STBY pages and engaging the test mode to activate the unit for use.



5. Temp data can now be obtained by pressing the TEMP/7 button. Note the various data items available. ISA is the delta from ISA standard temp at the current altitude. Page 2-2 of the Temp data is not implemented.



6. Rotate the mode switch to TO to the Takeoff mode



7. Use the SEL button to move the cursor “<” to one of the temp lines. Press CLR to clear the question marks, then enter the current OAT in the appropriate units. Press ENT when done. You will now see the computed takeoff EPR setting for the engines in use.



8. Press ENGAGE, and if the autobugs on the EPR gauges are enabled (they are by default) the bugs will slew to the selected EPR. The ASI bug will show 200KIAS for takeoff until a climb mode is selected.

9. If a reduced thrust takeoff is desired using an assumed temperature, you can press PAGE -> to select TO page 2-2 and enter the assumed temp there. The reduced thrust setting is displayed, and pressing ENGAGE selects and displays the reduced thrust setting on the EPR bugs.

10. Once airborne rotate the mode selector to CLB. You will have the option of selecting one of four pages – ECON, RATE, MANUAL, and EPR. The ECON climb is the most used (320/M0.70) profile. Press ENGAGE and the EPR bugs will continuously adjust to display the max climb EPR, and the airspeed bug will display the IAS/Mach as appropriate.



11. The RATE page produces the best rate of climb profile. This data is a bit shaky in MSFS, so the page is reproduced with a fixed 320/M.74 climb profile.



12. The Manual climb page allows the pilot to specify the IAS/Mach to be displayed on the ASI bugs. Use the SEL/CLR/ENR buttons as you did entering the temps for takeoff.



13. The EPR page only displays the Climb EPR limit. The ASI bug will slew to parked position at 440 KIAS.



14. Upon reaching cruise altitude, rotate the mode selector to CRZ. Here you will have a choice of ECON, LRC (Long Range Cruise) and Manual cruise profiles. The WIND can be set in all pages

where it appears, but it is currently not used. At FL 230 and below, the EPR will be computed for cruise IAS, at FL 240 and above for cruise mach number. The Manual mode computes EPR for speed ranges between 260-340 KIAS and Mach 0.70 – 0.78.



15. The Descent pages are currently not implemented



16. The Holding mode displays Mach, Airspeed, and EPR for holding at the current altitude.



17. The Continuous thrust mode displays max continuous thrust at the current altitude and temperature. This will be the same as climb EPR for the -9 and -17 engines, but is separately scheduled for the -15.



The engine-out driftdown pages are not currently implemented.



18. The GA page displays GA EPR for the current altitude/temp, and Vref speeds for the current acft gross weight. The airspeed bug is parked while GA mode is engaged.



That's it! The PDCS fuel planning modes may be added in a future release of the TinMouse II. The PDCS is a simple to use but very handy perf computer.

Programmed by Bob Scott for the TinMouse II Project.
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