

6. MCDU / FMS

Guide

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6.1 Objective

The MCDU (Multipurpose Control and Display Unit) is used to manage:

- Flight planning
- Navigation
- Performance calculations
- Aircraft guidance

Correct setup is essential for safe and efficient flight operations.

General Philosophy

- The FMGS manages the flight **only if correctly programmed**
- Pilots must always **verify inputs**
- Never rely blindly on automation

6.2 INIT A Page

Used for basic flight initialization.

Required Entries:

- FROM / TO → Departure & Destination
 - FLT NBR → Flight Number
 - COST INDEX → Airline value
 - CRZ FL → Planned cruise level
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Key Rule

All entries must be cross-checked by PM

6.3 Flight Plan Page

Route Input:

- Insert waypoints / airways
 - Select SID and runway
 - Insert STAR and approach
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Important:

- Remove all discontinuities
 - Verify route against briefing
 - Check for incorrect turns
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Core Rule

“No discontinuities without reason.”

6.4 INIT B Page

Fuel & Weight:

- Block Fuel → INSERT
 - Zero Fuel Weight → INSERT
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Importance:

Incorrect values will result in:

- Wrong fuel prediction
- Incorrect performance

6.5 Performance Pages

Takeoff (PERF TO)

- V1 / VR / V2 → INSERT
 - FLEX Temperature → SET
 - Thrust Reduction Altitude → SET
 - Acceleration Altitude → SET
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Climb (PERF CLB)

- Managed speed profile active
 - Monitor climb performance
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Cruise (PERF CRZ)

- Mach mode active
 - Fuel predictions monitored
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Descent (PERF DES)

- Managed descent profile available
 - Used mainly for constraints
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Approach (PERF APPR)

- VAPP → CHECK / INSERT
- Wind → INSERT
- Minimums → SET

6.6 Key Pilot Tasks and common errors

Key Pilot Tasks

During all phases:

- Monitor flight plan
 - Check for route deviations
 - Verify altitude and speed constraints
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Common Errors

- Missing discontinuities
- Incorrect SID/STAR selection
- Wrong performance data
- Not updating approach

6.7 Crosscheck Concept

Every critical input must be:

1. Entered by PF
 2. Verified by PM
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Core Rule

“Garbage in → Garbage out.”

Key Principle

The MCDU is a tool:

- It supports the pilot
 - It does not replace decision-making
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Outcome

A correctly programmed MCDU ensures:

- Accurate navigation
- Efficient flight profile
- Reduced workload