

# BOEING 737-800

## TECHNICAL REVIEW - CHAPTER 10

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### FLIGHT INSTRUMENTS

#### ADIRS

Air Data Inertial Reference System includes :

- 2 ADIRU (Air Data Inertial Reference Unit)
- 4 ADM (Air Data Module)
- 1 ISDU (Inertial System Display Unit)
- 1 MSU (Mode Selector Unit)
- 6 Static ports (2 Capt, 2 F/O, 2 Alt)
- 3 Pitot probes
- 2 Alpha vanes
- 1 Total Air Temperature probe

A DEU (Display Electronic unit) failure will prompt a DSPLY SOURCE message.

#### PFD OVERVIEW

White bug : T/O = Vref +15kt      Approach = Vref +20kt

Upper red band : Indicates the maximum speed as limited by VMO/MMO, gear or flap placard speed

Upper amber band : When flaps are up, indicates 1.3g capability to high speed buffet  
When flaps are extended, shows placard speed of the next logical flap setting

Lower amber band : Below 20'000 ft indicates 1.3g capability to stick shaker  
Above 20'000 ft indicates 1.3g capability to low speed buffet  
When the airspeed decreases to the lower amber bar the readout turns amber and flashes  
Also an aural alert "Airspeed low!, Airspeed low!" sounds

Lower red band : Indicates speed at which stick shaker occurs

Pitch Limit Indicator : Shows pitch limit to stall when flaps are extended or at low speeds

Expanded LOC : Displayed when within 1/2 dot and 5° of MCP course

#### ALERTS

ALT DISAGREE : Capt & F/O Altitude disagree by more than 200ft for 5 seconds

IAS DISAGREE : Capt & F/O IAS disagree by more than 5kt for 5 seconds

AOA DISAGREE : Capt & F/O AOA disagree by more than 10° for 10 seconds

#### TERRAIN ( On navigation display & VSD )

Red : Terrain is more than 2000 ft above the airplane

Amber : Terrain ranges from 500 ft below (250ft with gear down) to 2000ft above the airplane

Green : Terrain is more than 500 ft below (250ft with gear down) the airplane