Boeing 737-800 QUICK REFERENCE GUIDE (QRG)
For X Plane 12 Use ONLY!

Rotation, Takeoff & Climb Speeds (Typical Weights)

Phase	Speed (KIAS)	Flap Setting	Notes
V1	135–145	Flaps 5	Varies by weight, runway length
VR	140–150	Flaps 5	Rotate smoothly
V2	145–155	Flaps 5	V2 +10 for clean-up
Initial Climb	V2 + 10–20	Flaps 5 to UP	Clean-up after positive rate & gear up
Climb < FL100	250	Clean	ICAO speed limit
Climb > FL100	280/M.74	Clean	ECON climb

Cruise Settings

Phase	Mach	Altitude (FT)	Notes
Normal Cruise	M0.78–M0.79	FL330–FL410	Most fuel-efficient setting
ECON Cruise	M0.78–M0.80	Cost Index-based	Operator-specific
Max Cruise	M0.82 (limit)	FL390–FL410	Avoid unless operationally necessary

Descent Speeds and Rate

Phase	Speed	Descent Rate	Notes
Managed Descent	280/M0.76	~1500–2500 fpm	ECON descent path
Idle Descent	As above	~1000–2000 fpm	At thrust idle
Speed Descent	320/M0.78	Up to 3000 fpm	Steeper profile
Below 10,000 ft	250 KIAS max	~1000–1500 fpm	ICAO limit

Circuit / Approach Speeds & Settings

Config	Flap Setting	Speed (KIAS)	Gear	Use
Downwind	Flaps 1 or 5	~180–190	UP	Initial pattern
Base	Flaps 10–15	~160–170	Gear DOWN	Intermediate turn
Final	Flaps 30 or 40	130–145 (VREF + 5)	Gear DOWN	Stabilized approach

Brake Setting Recommendation:

- **Autobrake 2** for normal landings

- **Autobrake 3 or MAX** for short or contaminated runways

- **Manual Braking** may be used for finer control on long runways

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Emergency Speeds & Engine-Out

Condition	Speed (KIAS/Mach)	Notes
Engine-Out Climb	V2 + 10–15	Maintain during drift-up
Drift Down Speed	Green Dot (~M.65–.68)	From EO ACC ALT
Single Engine Cruise	M0.70–0.74	ECON mode
Dual Engine Failure (Glide)	275–280 KIAS	Best glide speed
Max Glide Ratio	~12:1 @ FL300	Approx. 1.7 nm per 1000 ft

⚡ All Engines Out / RAT / APU

- **Glide Speed**: ~275 KIAS

- **APU Start**: Initiate below FL410

- **Electrical Power**: RAT auto-deploys with total power loss

- **Restart attempts**: Windmill relight > 280 KIAS or use APU for start assist

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