

VAN's AIRCRAFT RV-10
QUICK REFERENCE GUIDE (QRG)
For X PLANE 12 ONLY



TAKEOFF & CLIMB

- **Vr (Rotation Speed):** 60–65 KIAS
- **Vx (Best Angle of Climb):** 75 KIAS
- **Vy (Best Rate of Climb):** 95 KIAS
- **Initial Climb Speed:** 90–95 KIAS (flaps up)
- **Climb Rate:** ~1200 fpm (sea level, MTOW)
- **Flap Setting for Takeoff:** 0° or 10° depending on field length
- **Flap Retraction Speed:** >85 KIAS

CRUISE PERFORMANCE

- **Normal Cruise Speed:** 160–175 KTAS @ 65–75% power
 - **Economy Cruise:** 140–155 KTAS @ 55–65% power
 - **Cruise Altitude Range:** 6,000 – 12,000 ft
 - **Fuel Burn:** ~10–14 GPH
 - **Engine:** IO-540 (typically 260 HP)
 - **Lean of Peak (LOP):** Recommended for economy
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DESCENT

- **Normal Descent Speed:** 140–160 KIAS
 - **Planned Descent Rate:** 500–800 fpm
 - **Approach Descent:** 90–110 KIAS depending on flap and gear
 - **Descent Planning:** ~3 nm per 1000 ft altitude loss
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APPROACH & LANDING

- **Downwind:** 100–110 KIAS | Flaps UP
 - **Base:** 85–95 KIAS | Flaps 10°–20°
 - **Final Approach:** 70–80 KIAS | Flaps Full (40°)
 - **Short Field Approach:** 65–70 KIAS | Full flaps
 - **Touchdown Speed:** ~60–65 KIAS
 - **Braking:** Smooth application, avoid locking wheels
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V-SPEEDS SUMMARY

V-Speed	Value (KIAS)	Definition
Vso	49	Stall speed in landing config (full flaps)
Vs1	57	Stall speed clean (flaps up)
Vr	60–65	Rotation speed
Vx	75	Best angle of climb
Vy	95	Best rate of climb
Vfe (10°)	110	Max speed with flaps 10°
Vfe (Full)	85	Max full flap extension speed
Va	133 @ 2700 lbs	Maneuvering speed (varies with weight)
Vno	140	Max structural cruising speed
Vne	175	Never exceed speed
Vref	70–75	Final approach speed

EMERGENCY OPERATIONS

- **Best Glide Speed:** 90 KIAS
- **Engine Failure During Takeoff:**
 - If below 500 ft AGL: Land ahead, flaps as required
 - If above 500 ft AGL: Return only if altitude and speed permit (90+ KIAS, coordinated)
- **Engine Out Procedure:**
 - Airspeed: 90 KIAS
 - Fuel Selector: Switch tanks
 - Mixture: Full rich
 - Throttle: Full
 - Carb Heat: On (if carbureted)
 - Restart: Attempt if safe
- **Emergency Landing:**
 - Airspeed: 90 KIAS
 - Flaps: As required
 - Master & Fuel: OFF before touchdown
 - Doors: Unlatched

NOTES

- All speeds assume max gross weight (2700 lbs)
- RV-10 is an experimental aircraft — exact values may vary by builder configuration
- Confirm V-speeds and engine procedures with POH-equivalent for your aircraft