King Air B200 POH

Pilot's Operating Handbook:

This section includes performance data on the King Air B200. Information consists of:

1. Critical Airspeeds
2. Operating NOTAMS
3. Fuel Loading Formula

Checklists:

This section includes checklists for each phase of flight.

1.   Pre-Flight
2.   Pre-Engine Start
3.   Engine Start
4.   Pre-Taxi
5.   Pre-Takeoff
6.   Takeoff
7.   Post-Takeoff
8.   Climb
9.   Cruise
10.   Descent
11.   Pre-Approach
12.   Approach
13.   Landing
14.   Post-Landing
15. Parking

1. Critical Airspeeds

Taxi:
* Max. 22 Knots on straight taxiways
* Max. 16 Knots in turns
* Max. 12 Knots approaching gates/parking areas

Takeoff:
* V1 - Decision Speed = 74 Knots
* Vr - Rotate Speed = 96 Knots

Climb Rate:
* Climb Rate: Set to 1,800 ft./min. (Higher rates of climb, up to 2,500 ft./min. are permitted.)
  * **Note:** Climb rate is normally dictated by airspeed - that is, you fly a certain airspeed that yields a certain climb rate. This POH specifies a climb rate instead to give you, the pilot in command, a guide to climb performance of this aircraft.

Climb Airspeed:
* Departure Altitude to 10,000 ft. - no greater than 250 KIAS
* Above 10,000 ft. - Fly Mach Number = 0.48 - 0.50
* Vne/Mmo - Never Exceed/Maximum Mach Number = .0.53

Cruise Airspeed:
* 0.46 - 0.49
* Vfe = 200 kts
* Vno =259 kts
* Vne = 302 kts
* Mmo = 0.53

Descent Information:
* To calculate **Top Of Descent** point (the point at which you need to begin your descent to reach the desired altitude at the desired time): Use 4.9 miles per minute (at Mach .49 in descent - 250 KIAS below 10,000 ft. MSL) as the basis. This is a "No Wind" calculation. If you have a tailwind, the miles per minute will be greater; if you have a headwind, the miles per minute will be lower.
* Descend with Auto-throttle set to hold Mach .47 to 10,000 ft. MSL - set to 230 KIAS below 10,000 ft. MSL.
* Set descent rate to 1,800 ft./min

Approach Information:
* Approach Airspeed:
  * Initial Phase - 180 KIAS
  * Approach Course Intercept - 150 to 170 KIAS
  * Final Approach (Stab. on ILS or Visual Approach) - Begin to decrease airspeed to landing airspeed of 115 KAIS.
* Flaps: Safe Deployment Airspeed: 195 KIAS
  * Begin to configure the aircraft for the approach with flaps deployment beginning at 160 KIAS. To provide for a stabilized approach, have the aircraft fully configured for landing (gear down, spoiler armed, full flaps) at 5 NM from landing.
* At Outer Marker: Deploy Landing Gear

Landing:
* Minimum Runway Length: 2,800 ft.
* Target Landing Airspeed: 100 KIAS
  * Landing Speed can be decreased to 84 KIAS for shorter runways. When landing at speeds lower than 115 KIAS, you will need to maintain a higher power setting and steeper body angle to prevent excessive rate of descent.
* Check flaps full and gear down at 500 ft. above airport altitude.
* Upon landing (all gear on runway)
  * Apply brakes as needed to safely exit runway
* Exit runway at 15 Knots or less.

2. Operating NOTAMS:

- None at this time.

3. Fuel Loading Formula

- Range = 1,883 NM
- Max fuel: 3645 lb

- Fuel Burn Rate Factor = 0.552
- Fuel Base Amount = 885 lb (this is the basic fuel load per flight and includes fuel for taxi, climb, descent and reserves)

NOTAM: You can always use a full fuel load if you expect headwinds or want an extra measure of safety. Note that the Fuel Loading Formula is specific for No Wind conditions. A tailwind will decrease the amount of fuel consumed. A headwind will increase the amount of fuel consumed. Note that fuel consumption varies with your cruising settings. Expect separate sheet with critical data to come.

((Fuel Base Amount)+(Trip Distance * Fuel Burn Rate Factor))/2 = Fuel Load Per Tank

Checklists:

Pre-Flight:

- Select departure airport and position aircraft at gate
- Engines off
- Set airspeed indicator to read Indicated Airspeed
- Flight plan completed
- Fuel Load computed and loaded
- Departure procedures reviewed and charts/documents at hand
- Weather for flight set
- Log sheet ready

Pre-Engine Start:

- Parking Brake Set
- Waypoints loaded into FMS (Flight Management System)
- Nav Radios Set
- Com Radios Set
- Copy ATIS

Engine Start:

- Parking Brake Set
- Engine Area Clear
- Throttle Set to Idle
- Start Fuel Flow
- Start Engines
- Check Engine Operating Normally

Pre-Taxi:

- Flaps 1 (NOTAM: Flaps are "0" when retracted and "3" when fully deployed. Flaps "3" indicates the third detent.)
- Check Control Continuity:
  - Confirm Full Aileron Movement
  - Confirm Full Rudder Movement
  - Confirm Full Elevator Movement
- Push Back
- Release Parking Brake
- Taxi to departure runway - set parking brake when holding short of departure runway

Pre-Takeoff:

- Check parking brake set
- Check Set to Flaps 1
- Check engine operating normally
- Auto Pilot On *(Do not engage individual A/P functions until airborne.)*
- Airspeed set to 230 KIAS
- Departure heading set (Runway Heading Unless Otherwise Directed or Necessary For Safe Departure.)
- "Cleared to" altitude set (This is the altitude you received during your departure)
- Taxi into position and hold

Takeoff:

- Release Parking Brake
- Set power to maximum thrust (full throttle)
- V1 = 74 Knots (Decision Speed)
- Vr = 96 Knots (Rotate Speed)
- Initial climb at 9° BA (Body Angle)
- Positive Rate Of Climb - Gear Up
- Retract Flaps:
  - Flaps Two: 110 KIAS
  - Flaps One: 145 KIAS
  - Flaps Retracted: 170 KIAS

Post Takeoff:

- Engage Auto-throttle
- Engage Heading Hold
- Engage Altitude Hold
- Check gear up
- Check flaps up
- Check A/P Functioning Properly

Climb:

- Rate of Climb - 2,100 ft./min. (Set to 2,500 ft./min. for expedited climb.)
- Airspeed
  - 250 KIAS under 10,000 ft.
  - Mach . 0.49 - 0.51 above 10,000 ft.
- Increase throttle as needed to hold published climb airspeed

Cruise:

- Airspeed
  - Mach . 0.49 - 0.51
  - Vne/Mmo - Mach .53 (Never Exceed/Maximum Mach Number)
- Ensure On Course Navigation
- Log TO and cruis data continuously

Descent:

- Set Auto-Throttle to desired airspeed - not to exceed 250 KIAS below 10,000 ft.
- "Cleared To" Altitude Set (the altitude to which you will be descending)

Pre-Approach

- Approach Plate Out
- Approach Brief (Brief yourself on the approach, how you plan to execute it, missed approach procedures, approach and landing configuration review - when to set flaps and lower gear, altitude at approach fixes and any other relevant information to ensure full understanding of approach)
- ILS Freq. Set (Once turned/cleared for approach - do not set ILS freq. if you are still tracking an en-route or approach procedure NAV Aid)

Approach:

- Spoiler Armed
- Fly published approach as briefed.
- Normal Approach Airspeed:
    - 115 KIAS (Short Field Landings - 96 KIAS)
- Landing Configuration set at outer marker
    - Gear Down
    - Flaps Full

EXECUTE MISSED APPROACH if you can not establish a stabilized approach or if you deviate significantly from the ILS localizer and/or glideslope.

Landing:

- Target Airspeed: 115 KIAS (Short Field Landings - 84 KIAS)

- After touchdown:
    - Apply Brakes as needed to safely exit runway
    - Exit Runway at 15 Knots or less

Post Landing:

- Flaps Ups
- Taxi To Terminal/Ramp

Parking:

- Parking Brake Set
- Flaps Up
- Spoilers Retracted
- Engines Off

Debriefing:

- Log into dESPair logbook
- Log/Close your flight and don't forget to enter any aircraft relevant data