

Beech Bonanza - BE-V35

275BM - Main Checklist

Preflight

- Operating Handbook - IN PLANE
- Weight & Balance - CHECKED
- Parking Break - SET
- Control Wheel Lock - REMOVE
- Ignition Switch - OFF
- Avionics Power Switch(es) - OFF
- Flaps - UP
- Master Switch - ON
- Fuel Quantity Indicators - CHECK
 - Must be visually verified
- Low-Vacuum Warn Light - CHECK
- Avionics Power Switch(es) - ON
- Avionics Power Switch(es) - OFF
- Master Switch - OFF
- Fuel Selector - SELECT TANK
- Baggage Door - CLOSE / LATCH

Empennage

- Rudder Gust Lock - REMOVE
- Tail Tie Down - DISCONNECT
- Control Surfaces - MOVEMENT
- Undercarriage/Antennas - CHECK
- Tail Light / Wicks - CHECK

Wings

- Aileron - MOVEMENT / SECURE
- Wing Tie-Down - DISCONNECT
- Main Wheel Tire - => 30 PSI
- Fuel Sump Drain - CHECK
- Fuel Qty - CHECK VISUALLY
- Fuel Filler Cap - SECURE
- Left Wing** - PITOT / VENT

Nose

- Engine Oil - > 5QT / 7 for X-Cowling - Secure
- Prop & Spinner - NICKS/SECURE
- Engine/Oil Inlets - UNRESTRICTED
- Nose Wheel/Strut - => 40 PSI
- Static Source Opening - CLEAR
- Nose Sump - CHECK

Engine Pre-Start

- Seats/Belts/Harness - SECURE
- Gear Handle - DOWN
- Gear Crank - FREE/FOLDED
- Brakes - TEST/SET
- Avionics Pwr Switch(es) - OFF
- Panel Lights - OFF DAYTIME
- Circuit Breakers - CHECK IN
- Electric Equip / A/P - OFF
- Radios - OFF
- Fuel Selector - FULLEST > 13g
- Battery/Alternator Switches-ON
- Flaps - UP / HANDLE CNTRD
- Cowl Flaps - OPEN
- Gear Down Lights** - GREEN
- Fuel - CHECK QUANTITY
- Beacon - ON
- Dynon Primary - LEFT Dsply ON
- Dynon Primary - CONFIGURE

Engine Start (COLD)

- Mixture - FULL RICH
- Prop - FULL FORWARD (hi rpm)
- Throttle - PUSH OPEN 2 INCHES
- Aux Fuel Pump - ON
 - (until FLOW PEAKS, then OFF)
- Throttle - PULL CLOSED
- Throttle - OPEN 6 HALF TURNS
- Prop Area - CALL CLEAR
- Ignition Switch - START
- Throttle - ADJUST 1000 RPM
- Oil Pressure - CHECK
- Voltmeter - VERIFY > 13.5
- Avionics Pwr Switch(es) - ON
- Dynon All Scrns - CONFIGURE
- ATIS - TUNE
- Nav Lights - As needed
- Engine < 1200 RPM until temp > 75 F (in green)

Engine Start (HOT)

- Fuel Pump - 30s (until MP moves)
- Mixture - IDLE / CUTOFF
- Throttle - FULL OPEN
- Starter - ENGAGE
- As Engine Starts- MIXTURE FULL
- Throttle - ADJUST 1000 RPM
- Oil Pressure - CHECK
- Voltmeter - VERIFY > 13.5

Pre-Takeoff

- Parking Break - SET
- Seats/Belts/Harness - SECURE
- Cabin Doors - CLOSE/LATCH
- Flight Controls - FREE/CORRECT
- Flight Inst - CHECK / SET
- Radios/Xpdr/Avionics - SET
- Flight Plan - PROGRAMMED
- Fuel Qty - CHECK
- Mixture - RICH (< 3K)
- Fuel Selector - RECHECK FULL
- Trim - SET (3 up for front only)
- Aux Fuel Pump - CHECK OFF
- Throttle - 1700 RPM
- Magnetos-R/L < 150 & 50 diff
- 1700 RPM... Exercise Prop 1x 300 rpm drop
- Suction - Approx 5inHg
- Engine Inst/Ammeter -CHECK
- Throttle - Check Idle, set 1000
- Throttle Friction Lock - ADJUST
- Autopilot - OFF
- Flaps - SET FOR TAKEOFF
- Cowl Flap - Recheck OPEN
- Window - CLOSED
- Door - RECHECK CLOSED
- Parking Brake - RELEASE

Normal Takeoff

- On Runway Checklist
 - Time - NOTE
 - Landing Light - ON
 - DG - Check ok on Rwy Hdg
 - Flaps - 0 DEGREES
 - Throttle - FULL OPEN 2700
 - Brakes - RELEASE
 - Engine Instruments - CHECK
 - Airspeed - ALIVE
 - Rotate - 70 - 74 KTS
 - Brakes/Wheels - TAP
 - Landing Gear - RETRACT
 - Climb Speed - Vy - 90 KTS
 - Power - REDUCE mp/prop (25)
 - Temps - MONITOR cht/egt/oil
 - Cowl Flaps - OPEN (at cruise)

Short Field Takeoff

- Flaps - 25 DEGREES (2nd notch)
- Carb Heat - COLD
- Brakes - APPLY
- Mixture - FULL RICH < 3000
- Throttle - FULL OPEN
- Brakes - RELEASE
- Elevator - TAIL LOW
- Accelerate - 60-65 MPH
- Elevator - BACK PRESSURE
- Rotate - CLIMB ATTITUDE
- Accelerate - 85 MPH
- Accelerate - 100 MPH
- Obstacles - CLEARED
- Flaps - RETRACT SLOWLY

Normal Landing

- Seatbelts, Etc. - SECURE
- Landing light - ON
- Mixture - FULL RICH
- Fuel: Pump - ON / FULLEST TANK
- Gear - DOWN < 143 KTS
- Airspeed - (flaps up) 100 KTS
- Flaps - AS DESIRED < 103 KTS
- Airspeed - (flaps dn) 100 KTS
- Prop - SET - (forward when short)

Short Field Landing

- Same as Normal, thence...
- Low Safe Airspeed 69kt / 79mph
- Braking - APPLY HEAVILY

Post Landing

- EXIT RUNWAY FIRST
- Flaps - UP
- Landing Light - OFF
- Transponder - OFF
- Mags Grounded - CHECK
- Mixture - LEAN FOR TAXI
- Contact Ground Control

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275BM - Emergency

ENGINE FAILURE TAKEOFF

- Throttle - IDLE
- Brakes - APPLY
- Flaps - RETRACT
- Mixture - IDLE / CUTOFF
- Ignition Switch - OFF
- Avionics Switch(es) - OFF
- Master Switch - OFF
- Fuel Selector - OFF

ENGINE FAIL ON CLIMB

- Airspeed - 105 KTS
- Mixture - IDLE / CUTOFF
- Fuel Shutoff Valve - OFF
- Ignition Switch - OFF
- Flaps - AS REQUIRED
- Master Switch - OFF
- Land - LOWEST SAFE SPEED

ENGINE RESTART

- Airspeed - BEST GLIDE 105 KTS
- Fuel Selector - SWITCH
- Mixture - FULL RICH
- Fuel Pump - ON
- Ignition Switch - START
(Check left/right/both)

FORCED LANDING - NO ENG

- Belts, Etc. - SECURE
- Airspeed - 74 - 78 KTS
- Mixture - IDLE / CUTOFF
- Fuel Selector Valve - OFF
- Ignition Switch - OFF
- Flaps - AS REQUIRED
- Gear - AS NEEDED
- Master Switch - OFF
- Doors - UNLATCH
- Touchdown - SLIGHTLY TAIL LOW
- Brakes - APPLY HEAVILY

ENGINE FIRE

- Mixture - IDLE / CUTOFF
- Fuel Selector Valve - OFF
- Master Switch - OFF
- Cabin Heat/Air - OFF
- Airspeed - INCREASE AS NECESSARY TO EXTINGUISH
- Forced Landing - EXECUTE

SPIN RECOVERY

- AILERONS - NEUTRAL
- THROTTLE CLOSED
- OPPOSITE RUDDER
- STICK FORWARD-BREAK STALL
- RUDDER NEUTRAL
- RECOVER FROM DIVE

GEAR TROUBLESHOOTING

- Verify Gear Handle - DOWN
- Gear Light Mechanical Iris - OPEN
- Check Circuit Breaker - IN
- Mech Gear Indicator - DOWN
- Swap "down" lamp Assemblies
- Confirm Override Switch Position

EMERG GEAR EXTEND

- Landing Gear Circuit Bkr - OFF
- Unfold & engage gear handcrank
- Crank 50 turns counter clockwise
- Verify down w/light and indicator
- When down, leave until repaired

Fuel: 80 gal / 74 Usable

Per Tank: 40g / 37 usable

Tab slot - 35g

Tab bottom - 30g

Max Xwind - 17 KTS / 20 MPH

Lean: < 1500 EGT (or when hottest bar turns yellow.)



Takeoff

- On Runway Checklist
- Time - NOTE
- Transponder - ON
- Landing Light - ON
- Directional Gyro - check
- Throttle - FULL
- Vr - 70 - 74 KTS

Climb

- Gear: Up
- Vy: 96 KTS
- No lean
- WOT
- RPM: 2600
- Check CH/EGT/Oil

Cruise

- 24"-25" MP or WOT
- 2200-2400 RPM
- Lean per JPI / EGT

C-climb

- 107 KTS -123 MPH

Descent

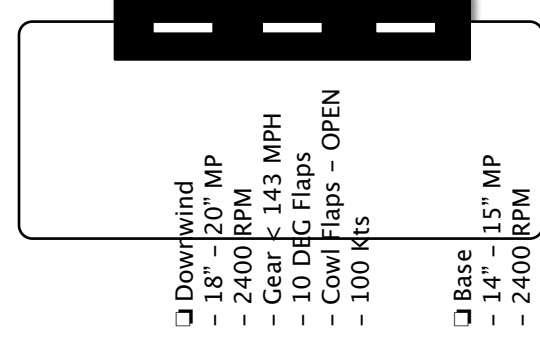
- Plan 5mi/1K'
- Reduce MP 1" / 1K
- Mixture - Per EGT
- Pitch 600 FPM
- 100 KTS
- Cowl Flaps - OPEN

Init Appr

- Pump - ON
- To LOC - 20"/2400
- At LOC - 18"/2400
- At GS - Gear DOWN
- Flaps - 1st
- Descent - 5x GndSp
- 90 - 100 KTS

GS Intercept

- Final Appr



Downwind

- 18" - 20" MP
- 2400 RPM
- Gear < 143 MPH
- 10 DEG Flaps
- Cowl Flaps - OPEN
- 100 kts

Base

- 14" - 15" MP
- 2400 RPM

Final

- Pwr 12" - 15"
- 90-100 KTS over fence
- Full Flaps (optional)
- Power out

Speed	Kts	MPH
Vr	71	82
Cruise	130	150
Vy	96	110
Vx	76	87
Va	134	154
Vne	197	227
Appr	70	80
Vle	145	167
Vfe	117	135
Vs	63	73
Vso	54	60
C-climb	107	123
E Desc	145	167
Glide	105	122
E Appr	78	90