

## Cessna-172S N172JD/Aspen ProMax

### Preflight Cabin

1. Pitot Tube Cover .....Remove
2. AROW(+ supplements).Check
3. Weight & Balance. Check for ballast
4. Parking Brake .....Set
5. Control Wheel Lock .....Remove
6. Ignition Switch ..... Off
7. Radio Master Switch ..... Off
8. PFD Switch..... Off
9. Master Switch ..... On.
10. Fuel Quantity, Lo-Volt Light. Check
11. Alternate Static Source ..... Off
12. Fuel Selector Valve.....Both
13. Flaps ..... Extend.
14. Pitot Heat, Lights ..... On/Check/Off
15. Master Switch ..... Off
16. Elevator Trim .....SET for Takeoff
17. Baggage Door.....Secure

### Preflight Empennage

1. Aspen OAT Check for Blockage
2. Rudder Lock (if installed)..Remove
3. Tail Tie-Down ..... Disconnect.
4. Control Surfaces... Check freedom of movement and security.
5. Trim Tab ..... Check security
6. Antennas ..... Check for security of attachment and general condition.

### Preflight Right Wing Trailing Edge

1. Aileron ..... Check
2. Flap..... Check

### Preflight Right Wing

1. Wing Tie Down ..... Disconnect
2. Main Wheel Tire/brake..... Check for proper inflation, leaks and general condition.
3. Fuel Quantity ..... Check Visually
4. Fuel Drain Valve (1)..... Drain/Check
5. Fuel Filler Cap ..... Secure and Vent Unobstructed

### Preflight Nose

1. Fuel Strainer Valve, Pull out for 3 seconds. Check Fuel Quality.
2. Engine Oil Dipstick/Filler Cap..... Check level and secure. (5 qt min) Fill to 6+ for extended flights)
3. Engine Cooling Air Inlets..... Clear
4. Landing/Taxi light(s)..... Check
5. Propeller & Spinner..... Check
6. Air Filter..... Check
7. Nose Wheel Strut and Tire.... Check
8. Left Static Source Opening... Check

### Preflight Left Wing

1. Wing Tie Down.....Disconnect
2. Main Wheel Tire/Brake..Check for proper inflation, leaks and general condition
3. Left Fuel Quantity Visually Check.
4. Fuel Drain Valves (1) Drain/Check
5. Fuel Filler Cap... Secure and Vent Unobstructed.

### Preflight Left Wing Leading Edge

1. Fuel Tank Vent..... Check for blockage.
2. Stall Warning Opening.... Check for blockage.
3. Wing Tie Down.....Disconnect

### Preflight Left Wing Trailing Edge

1. Aileron..... Check.
2. Flap ..... Check.

### Before Starting Engine

1. Preflight Inspection ..... Complete.
2. Passenger Brief ..... Complete.
3. Seats / Belts / Shoulder Harness... Adjust and lock, check initial reel (front & rear).
4. Brakes..... Test & Set.
5. Circuit Breakers ..... Check In.
6. Electrical Equipment ..... Off.

### Caution

**The avionics master switch and PFD switch must be off during engine start to prevent possible damage to avionics.**

7. Radio Master, PFD Switch ..... OFF.
8. Fuel Selector Valve .....Both.

### Starting Engine (Using Battery) PRIMING PROCEDURE

1. Primer ..... In and Locked
2. Mixture Control ..... Full Rich.
3. Carb Heat ..... Cold
4. Throttle ..... Full then Idle x 2
5. Throttle..... Open 1/8 Inch
6. Propeller Area.....Clear.
7. Master Switch ..... On.
8. Flashing Beacon..... On.

### NOTE

**If engine is warm omit priming procedure.**

9. Throttle ..... Open 1/8 Inch
10. Ignition Switch .....Start.
11. Oil Pressure..... Check.
12. Throttle ..... 1000 RPM.
13. Mixture . Lean for maximum RPM
14. Throttle. .... 800-1000 RPM
15. Nav Lights..OFF except for Night
16. Radio Master/Radios ..... On
17. PFD Switch..... On
18. EDM 830 display "REFUEL?"Y/N See EDM830 Cheat Sheet for more
19. Transponder..... Verify ALT
20. Transponder...No Annunciations
21. Flaps..... Retract
22. Flap handle.....Neutral

### Before Taxi

1. Heat / Vents / Defrost ...As Required
2. Radios/Nav aids/GPS. Checked / Set

### Taxi

1. Brakes..... Release and Test.
2. Throttle.....Adjust for min brake use.
3. ASPEN PFD..... Verify Ops
4. STBY Instruments..... Verify Ops.
5. Check Flight Instruments.

### NOTE:

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Do not remove  
from N172JD**

## Before Takeoff - Run-Up

1. Parking Brake ..... Set
2. Seats..... Secure
3. Seat Backs..... Most upright position.
4. Seat Belts ..... Secure
5. Cabin Doors..... Closed and Locked.
6. Flight Controls..... Free & Correct.
7. Flight Instruments ..... Check & Set.
8. Fuel Quantity ..... Check.
9. **Mixture**... ..... **Full Rich**.
10. Carb Heat ..... Cold.
11. Fuel Selector Valve..... Both.
12. Throttle..... 1700 RPM.
  1. **Mixture: BEST POWER (Max RPM)**
  2. Mag Check (125/50 max)
  3. Carb Heat.....Check RPM Drop
  4. Engine Instruments ..... Check
  5. Amps/Volts ..... Check
13. Annunciators..... Check
14. Throttle.....Check Idle
15. Throttle... ..... 800-1000 RPM
16. Mixture... ..... Lean as desired
17. Throttle Friction Lock ..... Adjust.
18. Radios & Avionics..... Set
19. GPS CDI ..... Select Nav Source
20. ASPEN CDI ..... Select Nav Source
21. EDM830 Switch.....Select EGT
22. Elevator Trim ..... Set for takeoff.
23. Flaps ..... Set for Takeoff (0°-10°).
24. Transponder... Verify ALT/SQUAWK
25. Transponder..... No Annunciations
26. Land/Taxi/Bcn/Strobe. .... On Nav Lights Night Only.
25. Mixture ..... Rich
26. Carb Heat ..... Cold
27. Parking Brake ..... Release
28. Takeoff..... Brief Runway/takeoff type/speeds/heading/altitude  
Lose engine on runway, IDLE, STOP  
Lose engine airborne rwy remaining, LAND  
Lose engine below 1000 AGL, PUSH 70K, land straight +/-30  
Above 1000 AGL, PUSH 70K, consider return to airport

## All speeds in KIAS

### Normal Takeoff

1. Flaps ..... 0°-10°
  2. Throttle ..... Full Open
  3. Vr..... 53 KIAS
  4. Vy ..... 73 KIAS
- SHORT FIELD FLAPS 10°, Yoke slightly tail low, Vr 53, Climb 58, Obstacle cleared, lower nose/accel to Vy 73, flaps up**
- SOFT FIELD FLAPS 10°, full aft/no brakes, ground effect, climb when reaching Vx 62 or Vy 73**

### Enroute Climb

1. Airspeed ..... 80 - 90 KIAS.
2. Throttle ..... Full Open
3. Carb Heat..... Cold
4. Mixture ..... Full Rich below 3000'
5. Lights..... As Desired
6. Engine Instruments/**CHT** ..... Check
7. Transponder..... Confirm Squawk/ALT

### Cruise

1. Power..... 2100-2550, up to 3900  
2100-2600, 4000-5900  
2200-2650, 6000-7900  
2200-2700, >7900
2. Carb Heat..... As Required
3. Elevator Trim ..... Adjust.
4. Mixture ..... Lean as required.
5. EDM830 Switch..... As Desired

### Before Descent

1. Weather..... Obtain
2. Altimeters ..... Set
3. Approach..... Brief
4. VOR/GPS setup ..... As Desired
5. ASPEN and GPS CDI ..... Select
6. Fuel Selector Valve ..... Both
7. Flaps ..... As Required
8. Mixture ..... Adjust
9. Carb Heat..... As Required

### Before Landing

1. Pilot and Passenger Seat Backs .... Most Upright Position.
2. Seats & Seat Belts ..Secure & Lock.

3. Fuel Selector Valve ..... Both
4. Mixture Control ..... Richen
5. Carb Heat..... On (apply full heat prior to idle)

6. Landing & Taxi Lights ..... On

### Normal Landing

1. Airspeed ..... 65 - 75 KIAS (flaps 0°).
  2. Wing Flaps..... As Desired (Below 87 KIAS)
  3. Airspeed . .60 - 70 KIAS (Flaps 30°).
- SHORT FIELD Flaps 30°, 61 KIAS, land, retract flaps, brakes**
- SOFT FIELD Flaps 30°, hold nosewheel off, power as desired**

### Balked Landing

1. Throttle ..... Full Open.
2. Carb Heat..... Cold
3. Wing Flaps..... Retract to 20°.
4. Climb Speed ..... 60 KIAS
5. Wing Flaps... 10° (until obstacles are cleared). RETRACT (after reaching a safe altitude and 73 KIAS)

### After Landing (Clear of Runway)

1. Carb heat... ..... Cold
2. Aircraft... Clear of Runway, Full Stop
3. Throttle... ..... 1000 RPM
4. **Mixture Lean for maximum RPM**
5. Throttle ..... As required
6. Wing Flaps..... Up
7. Lights ..... As Required
8. Transponder ..... ALT, 1200
9. Pitot Heat..... Off

### Securing Aircraft

1. Parking Brake ..... Set.
2. Electric Equipment..... Off.
3. PFD Switch ..... Off.
4. Radio Master Switch..... Off.
5. Throttle ..... Idle
6. Magnetos..... Check for Ground.
7. Mixture ..... Idle Cut Off.
8. Magnetos ..... Off, remove key.
9. Master Switch ..... Off.
10. Flight Control Lock..... Install.
11. Parking Brake .... Off when chocked.
12. Fuel Selector ..... Left or Right.

13. Sun Shields..... Install
14. Aircraft... Locked if away from Home
15. Flight Plan ..... Closed

## V Speeds and Specs

- X-Wind (Max Demo'd)..... 15 Knots
- Best Glide Speed ..... 68 KIAS (flaps up)
- Short Field Takeoff flaps 10° 58 KIAS
- Vx (Sea Level)..... 62 KIAS
- Vy (Sea Level)..... 73 KIAS
- Vso Stall w/ Flaps..... 49 KIAS
- Vs1 Stall w/o Flaps..... 56 KIAS
- Va (2550#) ..... 105 KIAS
- Va (2150#) ..... 95 KIAS
- Va (1750#) ..... 85 KIAS
- Vno Max Structural Cruise 126 KIAS
- Vne Never Exceed ..... 158 KIAS

## Aircraft Information

- Gross Takeoff Weight ..... 2550 lbs.
- Engine..... Lycoming O-360-A4M
- Max Power ..... 180 BHP
- Max Engine Speed..... 2700 RPM
- Fuel Type ..... 100LL (Blue)
- Fuel Capacity ..... 38 Gal Usable
- Oil Capacity..... 8 Qts (Minimum 6)
- Electrical..... 14 Volt
- Tire Pressure Nose-45/ Main-38 PSI
- BEW 1511.63
- Arm 38.63
- Moment 58397.07

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