

Civil Air Patrol

1985 Cessna 172P – N98792

Air Plains 180 HP Conversion

Preflight Cabin

1. Pilot's Operating Handbook Available
2. Parking Brake Set
3. Hobbs & Tach Check
4. Fire Extinguisher Charged
5. Squawk Sheet Check
6. Documents AROW in airplane
7. Control/Avionics Lock Remove
8. Ignition Switch Off
9. Avionics Power Switch Off
10. Master Switch On

Warning

When turning on the master switch, using an external power source, or pulling the propeller through by hand, treat the propeller as if the ignition switch were on. Do not stand, nor allow anyone else to stand, within the arc of the propeller, since a loose or broken wire, or a component malfunction, could cause the propeller to rotate.

11. Wing Flaps 30°
12. Fuel Quantity Indicators Check Quantity
13. Avionics Cooling Fan Check Audibly for Operation
14. Pitot Heat Check As Required
15. Lights Check
16. Master Switch Off
17. Static Pressure Alternate Source Valve (if installed) Off
18. Fuel Selector Both

Preflight Empennage

1. Baggage Door Check for security and lock
2. Rudder Gust Lock Remove
3. Tail Tie-Down Disconnect

4. Control Surfaces Check

Preflight Right Wing trailing edge

1. Right Flap Check
2. Right Aileron Check
3. Right Wingtip & Light Check

Preflight Right Wing

1. Wing Tie Down Disconnect
2. Right Main Wheel Tire & Brake Check
3. Right Fuel Sump Drain
4. Fuel Selector Quick-Drain Valve Drain
5. Right Fuel Quantity .. Visually Check
6. Fuel Filler Cap Secure, vent unobstructed

Nose

1. Static Source Check (Left side)
2. Prop & Spinner Check
3. Landing Lights Check
4. Carburetor Air Filter Check
5. Nose Wheel, Strut & Tire Check
6. Nose Tie-Down Disconnect
7. Engine Oil Filler Cap .Check Secure
8. Engine Oil Dipstick 5-7 Quarts (7 for extended flights)
9. Fuel Strainer Drain Knob . Pullout to Drain
10. Windscreen Check/Clean

Preflight Left Wing

1. Left Main Wheel Tire & Brake Check
2. Left Fuel Sump Drain
3. Left Fuel Quantity Visually Check
4. Fuel Filler Cap Secure

Preflight Left Wing Leading Edge

1. Pitot Tube Cover Remove
2. Left Fuel Vent Check Clear
3. Stall Warning Check
4. Wing Tie-Down Disconnect
5. Left Wingtip & Light Check

Preflight Left Wing Trailing Edge

1. Left Aileron Check
2. Left Flap Check

PASSENGER BRIEF

1. Seat Belts / Shoulder Harness

2. Personal Electronic Devices off
3. Air Vents / Comfort
4. Fire Extinguisher Location / Operation
5. Emergency Procedures & Exits

MISSION BRIEF

1. Mission Objective
2. Destination, WX, Route, Alt, ETE
3. NOTAMS
4. Crew Coordination & CRM
5. Sterile Cockpit Procedures
6. Cockpit Layout
7. Intercom & Radio Usage
8. Seats, Seatbelts, Doors
9. Emergency Action & Equipment

Before Starting Engine

1. Preflight Inspection Complete
2. Passenger Brief Complete
3. Seats / Belts / Shoulder Harness Adjust and Lock
4. Fuel Selector Valve Both
5. Avionics Power Switch Off

Caution

The avionics power switch must be OFF during engine start to prevent possible damage to avionics.

6. Autopilot (If Installed) Off
7. Electrical Equipment Off
8. Brakes Test & Set
9. Circuit Breakers Check In

Starting Engine

1. Mixture Rich
2. Carburetor Heat Cold
3. Master Switch On
4. Flashing Beacon On
5. Prime .. As Required (2 to 6 strokes)
6. Throttle Open 1/8 Inch
7. Propeller Area Clear
8. Ignition Switch Start
9. Throttle 800 to 1000 RPM
10. Oil Pressure Check
11. Starter Check Disengaged
12. Nav Lights As Required
13. Avionics Power Switch On
14. Radios On, and check 121.5
15. Taxi Lights As Required
16. Flaps Up
17. Transponder TEST/STBY

18. ATIS / AWOS Copy
19. Altimeter. Set (Verify Within 75' of Fld Elev.)
20. Clearance Delivery/Ground Control Contact

Taxi

1. Brakes Test
2. Heat / Vents / Defrost .. As Required
3. Attitude Indicator Verify Proper Operation
4. Turn Coordinator Verify Proper Operation
5. H.I. & Compass Verify Proper Operation
6. Fuel Selector Valve .Check & Set to Both

Before Takeoff - Run-Up

1. Parking Brake Set
2. Seats / Belts / Shoulder Harness Check Secure
3. Cabin Doors & Windows. Closed and Locked
4. Flight Controls Free & Correct
5. Flight Instruments & H.I. Check & Set
6. Fuel Quantity Check
7. Mixture Rich
8. Fuel Selector Valve .. Recheck Both
9. Elevator & Rudder Trim Set for Takeoff
10. Throttle 1700 RPM
11. Magnetos ..Max Drop 125 RPM - 50 RPM differential
12. Carb Heat Check for RPM Drop
13. Suction Gauge Check
14. Engine Inst & Ammeter Check
15. Throttle Idle Check, then 800 to 1000 RPM
16. Throttle Friction Lock Adjust
17. Strobe Lights/Pulse Lights (If installed) As Desired
18. Radios / Transponder Set
19. Autopilot (If Installed) Off
20. Flaps set for Takeoff 0°-10°
21. Primer In & Locked
22. Carb Heat Cold
23. Takeoff Briefing Complete

24. Doors & Windows.....Latched
25. Lights..... Set
26. Transponder.....Set to ALT
27. Time Record
28. Parking Brake..... Release

Takeoff

1. Flaps 0°-10°
2. Carb Heat Cold
3. Throttle..... Full Open
4. Mixture Full Rich or Max Power
5. Engine Instruments.....In Green
6. Rotate 55 KIAS
7. Climb Speed 75 to 85 KIAS
 - Short Field T.O.10° Flaps / 57 KIAS Until Clear
 - Soft Field T.O..... 10° Flaps / Ground Effect ASAP
8. Wing Flaps..Retract (above 70 KIAS)

Enroute Climb

1. Airspeed..... 75 - 85 KIAS Normal

Note

If a maximum performance climb is necessary, use speeds shown in the Rate Of Climb chart in POH Section 5.

2. Throttle..... Full Open
3. Fuel Selector..... Both
4. Mixture Full Rich or Max RPM
5. Engine Instruments..... Check

Cruise

1. Power. 2100-2700 RPM (no more than 75% is recommended)
2. Elevator & Rudder TrimAdjust
3. MixtureLean
4. Engine Instruments / Fuel..... Check
5. Heading Indicator (H.I.).To Compass
6. LightsAs Required
7. Flight Plan..... Activate as Required

Descent

1. Heading Indicator..... To Compass
2. Altimeter..... Set
3. Fuel Selector..... Both
4. Lights As Required
5. Engine Instruments..... Check

6. MixtureAdjust for Smooth Operation (full rich for idle power)
7. Carb Heat... Full Heat as Required

Before Landing

1. Seat, Seat Belts, Shoulder Harness Secure
2. Fuel Selector Valve.....Both
3. MixtureRich
4. Carb Heat... ..On (Apply Full Heat Before Closing Throttle)
5. Autopilot (If installed) Off
6. Airspeed...65-75 KIAS (Flaps Up)
7. Wing Flaps . As Desired (Below 85 KIAS)(Maximum Flap Travel is 30°)
8. Airspeed60-70 KIAS (Flaps Down)
9. Trim Adjust
- 10.Touchdown Main Wheel First
11. Landing Roll.. Lower Nose Wheel Gently
12. Braking..... Minimum required

Short Field Landing

1. Airspeed...65-75 KIAS (Flaps Up)
2. Wing Flaps30° (below 85 KIAS)
3. Airspeed...Maintain 62 KIAS (Until Flare)
4. Trim Adjust Power..... Reduce to idle after clearing obstacle
5. Touchdown Main Wheels First
6. Brakes Apply Heavily
7. Wing Flaps Retract

Balked Landing

1. Throttle Full Open
2. Carb Heat.....Cold
3. Wing Flaps20° (Immediately)
4. Climb Speed 60 KIAS
5. Wing Flaps ...10° (Until Obstacles are Cleared)
6. Wing Flaps....Retract (After reaching a safe altitude and 65 KIAS)

After Landing (Clear of Runway)

1. Wing Flaps Up
2. Carb Heat.....Cold
3. Lights..... As Required
4. Transponder..... STBY & 1200
5. Mixture Lean

6. Pitot Heat..... Off
7. Check 121.5

Securing Aircraft

1. Parking Brake..... Set
2. Throttle Idle
3. Avionics Power & Switches..... Off
4. Magnetos..... Check for Ground
5. Mixture.....Idle Cut Off
6. Ignition & Master Switch..... Off
7. Control/Avionics Lock..... Install
8. Parking Brake Off
9. Fuel Selector Left or Right
10. Hobbs & Tach..... Record
11. Aircraft Secured & Locked
12. Flight Plan.....Closed

V Speeds and Specs

- X-Wind (Max Demo'd)..... 15 Knots
- Vr Rotation Speed.....55 KIAS
- Vx Best Angle Climb 62 KIAS
- Vy Best Rate Climb 76 KIAS
- Vso Stall w/ Flaps..... 40 KIAS
- Vs1 Stall w/o Flaps..... 50 KIAS
- Best Glide (2550 Lbs) 65 KIAS
- Va Max Abrupt Ctrl (2550 Lbs) 105 KIAS
- Va Max Abrupt Ctrl (2150 Lbs) .. 95 KIAS
- Va Max Abrupt Ctrl (1750 Lbs) ... 85 KIAS
- Vno Max Structural Cruise 127 KIAS
- Vne Never Exceed 158 KIAS
- Vfe 10°-Full Flaps..... 85 KIAS
- Max Window Open Speed 158 KIAS

V Speeds and Specs are based on sea level. Consult the Air Plains Services, Corp. FAA Approved Airplane Flight Manual Supplement for V speed and Specs for operations above sea level.

General...

- EMERGENCY 121.50
- Unicom 122.70-122.80-122.95 123.00-123.05
- Multicom 122.90 (CTAF)
- Flight Service 122.20 (Most Common) 122.10-122.60-123.60
- Flight Watch 122.00
- Air to Air..... 122.75-122.85-123.45

Transponder Codes

- 1200..... VFR
- 7500.....HIJACK
- 7600..... LOST COMMS
- 7700..... EMERGENCY

Aircraft Information

- Gross Weight Capacity..... 2550 (Takeoff) 2550 (Landing)
- Engine Lycoming O-360-A4M
- Max Power..... 180 BHP
- Max Engine Speed2700 RPM
- Fuel Type..... 100LL (Blue)
- Fuel Capacity (Standard) ... 40 Gal Usable
- Fuel Capacity (Long Range).50 Gal Usable
- Oil Type SAE 50
- Oil Capacity 7 Qts (Minimum 5)
- Electrical.....24 - 28 Volt / 60 Amp
- Tire PressureNose-45 PSI / Main-38 PSI

This checklist is a guide to coordinate Pilot Operating Handbook and STC data applicable to this particular aircraft only. The applicable Pilot Operating Handbook and STC installations remain the official documentation for this aircraft.

The pilot in command is responsible for complying with all items in the Pilot Operating Handbook and applicable STCs.

I certify this checklist has been reviewed for accuracy.

Wing Director of Maintenance _____ Date _____