



N47601

N30749

**PA28-181 Piper Archer
Operating Checklist**

Phoenix Flyers, Inc.

www.phoenixflyers.org

Piper Archer PA28-181

Engine Starting

Before Starting Engine

1. Preflight Complete.
2. Seat Belts, Shoulder Harness - ON.
3. Passengers Briefed.
4. Radios / Avionics Master Switch - OFF.
5. All Electrical Switches - OFF.
6. Fuel Selector - Tank with most fuel.
7. Brakes - Test and Apply.
8. Carb Heat- OFF.

Starting Engine When Cold

1. Master Switch - ON.
2. Electric Fuel Pump - ON.
3. Throttle - ¼ inch Open.
4. Mixture - Rich.
5. Propeller Area Clear.
6. Engage Starter until Engine Fires.
7. Throttle - Adjust (800 to 1200 RPM)
8. Oil Pressure - Check.
9. Mixture - Lean for Taxi.
10. Fuel Pump – OFF.

Starting Engine When Hot

1. Same as Cold Except:
 - Mixture Off.
 - When engine fires - Full Rich.

Starting Engine When Flooded

1. Same as Cold Except:
 - Fuel Pump Off.
 - Throttle - Full Open.

Piper Archer PA28-181 Taxi

Before Taxi

1. Anti-Collision Lights - ON.
2. Flaps – Retract.
3. Radios - On and Set. (VOR Check)
4. Clearances - ATIS, Clearance Delivery, Ground.
5. Transponder – Standby.
6. Landing Light as Necessary.
7. Navigation Lights and Interior Lights as Desired.
8. Brakes - Test on Initial Roll.

Piper Archer PA28-181

Run Up

Run Up

1. Brakes - Set.
2. Fuel Selector - Tank with Most Fuel.
3. Flight Controls - Free and Correct.
4. Flaps - Check all Positions.
5. Oil Temp - In Green (Beginning to come up).
6. Throttle - 1800* or 2000 RPM.
 - Engine Instruments - Check.
 - Mixture - Lean above 4000 ft. density altitude.
 - Magnetos - Check Right - Both - Left - Both.
(Max. Drop 175 RPM, Max. Delta 50 RPM)
 - Carburetor Heat - Check.
 - Annunciator Panel - Press to test lights.
 - Vacuum - 4.8" to 5.1"
 - Alternator Output - Check.
 - Throttle Retard (800 TO 1200 RPM).
7. Throttle Friction Lock – Adjust.
8. Flight Instruments - Set.
9. Auto Pilot – OFF.
10. Circuits Breakers - Check.
11. Trim Tab – Set for Takeoff.
12. Radios Set Up.
13. Pitot Heat - As Desired.
14. Anti-Collision Lights - ON.
15. Cabin Door and Window - Closed and Locked.
16. Note Time Off.

Before Takeoff

1. Transponder - On Altitude.
2. Electric Fuel Pump - ON.
3. Anti-Collision Lights – ON.
4. Mixture - Rich (unless high altitude).

** Arizona Aircraftsman recommends 1800 RPM for a safe check and less wear on the engine, the POH recommends 2000 RPM.*

Piper Archer PA28-181

Takeoff, Climb Out, Cruise

Normal Takeoff

1. Brakes – Release.
2. Full Throttle.
3. Rotate at - 60 kts.
4. Climb Speed - 76 kts.

Short Field

1. Flaps - 25° (2nd Notch).
2. Brakes - Apply & Hold, Full Throttle.
3. Brakes - Release.
4. Pull Back @ 46 kts.
5. Off Ground @ 49 kts.
6. Climb Speed - 54 kts.
7. Flaps - Retract Slowly accelerate to 76 kts.

Soft Field

1. Flaps - 25° (2nd Notch).
2. Full back elevator pressure.
3. Slowly Increase to Full Throttle.
4. Lift Nose as soon as possible
5. Accelerate in ground effect.
6. Flaps Up.
7. Climb Speed - 76 kts.

Climb

1. Electric Fuel Pump - OFF at 1000 feet AGL.
- Check Fuel Pressure.
2. Best Rate - 76 kts.
3. Best Angle - 64 kts.
4. Enroute - 87 kts.

Cruise

1. Power - 2400 RPM and Lean Mixture.
2. Landing Light - OFF.

Piper Archer PA28-181

Approach and Landing

Before Landing (Down Wind)

1. 2000 RPM, 80 kts.
2. Seat Belts, Shoulder Harness - ON.
3. Seat Backs - Up.
4. Electric Fuel Pump - ON.
5. Fuel Selector - Fullest Tank.
6. Mixture - Set.
7. Landing Light - As Desired.
8. Autopilot – OFF.
9. Abeam Touch Down Point - 1400 RPM.
10. Flaps - 10° (First Notch).

Normal Landing

1. Base: 75 kts, GUMP Check, Flaps 25° (2nd Notch).
2. Final: 70 kts, Flaps 40° (3rd Notch).

Short Field Landing

1. Extend Downwind by 4-5 Seconds.
2. Reduce Approach Speed to 66 kts, Add 200 RPM.

After Landing

1. Flaps Retract.
2. Transponder - Standby.
3. Landing Light / Anti-Collision Lights – As Desired.
4. Fuel Pump - Off.
5. Mixture - Lean for Taxi.

Piper Archer PA28-181

Engine Shutdown

Engine Shutdown

1. Brakes - Apply and Hold.
2. Electrical Equipment – OFF.
3. Radios / Avionics Master Switch - OFF.
4. Lights - OFF.
5. Electric Fuel Pump - OFF.
6. Throttle - 1200 RPM.
7. Mixture - Idle Cut Off.
8. Magnetos - OFF.
9. Master Switch - OFF.
10. Secure Control Wheel.
11. Tie Down Plane.
12. Brakes - OFF.

Piper Archer PA28-181

Airspeeds

Best Glide - 76 kts

V_{S0}	=	49	kts
V_{S1}	=	55	kts
V_X	=	64	kts
V_Y	=	76	kts
V_A	=	89	kts @ Empty 1634 lbs
V_A	=	113	kts @ Gross 2550 lbs
V_{FE}	=	102	kts
V_{NE}	=	154	kts
V_{NO}	=	125	kts

Piper Archer PA28-181

Emergencies

Engine Failure

1. Pitch / Trim for Best Glide - 76 kts.
2. Fuel Pump - ON.
3. Carb Heat - ON.
4. Mixture - Rich.
5. Primer - Locked.
6. Mags - Check Both.
7. Switch Fuel Tanks.
8. **Power Off Landing** - If Engine will not Restart.
 - Select Landing Location.
 - Normal Radio Procedure (Squawk 7700, Mayday on 121.5).
 - Normal Shutdown (Fuel Pump Off, Mixture Off, Fuel Selector OFF, Mags OFF).
 - Before Landing (Seat belts tight, Door Open, Master switch OFF).

Engine Fire

1. Firewall Air Vents(Heat, Defroster) – Closed.
2. Mixture - Idle Cutoff.
3. Fuel Selector – OFF.
4. Throttle – Idle.
5. Electric Fuel Pump – OFF.
6. Descend rapidly (do not exceed VNE).
7. Prepare for power-off landing.

Electrical Fire

1. Master Switch – OFF.
2. Cabin Vents – Open.
3. Verify source of smoke is out.
4. Leave any tripped breakers off.
5. Restore Electrical items one at a time.
6. Land as soon as possible.