



**ARCHER III**

**W / G 1000**

**PA-28-181**

**PILOT'S CHECKLIST**

**2025**

## **PIPER ARCHER PA-28-181**

### **TAKEOFF**

Normal Rotation ..... 60 KIAS  
 Normal Climb-Out ..... 76 KIAS

### **CRUISE CLIMB**

(Vy) ..... 76 KIAS  
 (Vx) ..... 64 KIAS  
 En Route Climb ..... 87 KIAS

### **BALKED LANDING**

Maximum Power, Flaps 25° ..... 64 KIAS

### **MANEUVERING SPEED**

(Max. Recommended. Turbulent Air Penetration Speed)  
 2550 LBS ..... 113 KIAS  
 1917 LBS ..... 89 KIAS  
**MAX DEMONSTRATED CROSSWIND**  
 Takeoff or Landing ..... 17 KTS  
 (Vfe) ..... 102 KIAS

### **PREFLIGHT INTERIOR**

ARROW DOCS ..... ON BOARD  
 Control Wheel ..... FREE  
 Parking Brake ..... SET  
 All Instrument Panel and Overhead switches ..... OFF  
 Mixture ..... IDLE CUT-OFF  
 LEFT/RIGHT Mag Switches ..... OFF  
 Batt Master Switch ..... ON  
 Interior Lighting (Night) ..... CHECK  
 Pitot Heat ..... ON  
 FUEL QTY Indications ..... CHECK  
 Exterior Lighting Switches ..... ON/CHECKED  
 Pitot/Static Head ..... CHECK – WARM  
 Stall Warning Horn ..... CHECK  
 Exterior Lighting Switches ..... OFF  
 PITOT HEAT Switch ..... OFF  
 PITOT HT OFF Message ..... CHECK  
 BATT Master Switch ..... OFF  
 Flaps ..... EXTEND  
 Primary Flight Controls ..... FREE AND CORRECT  
 Trim ..... SET NEUTRAL  
 Pitot and Static Drains ..... DRAIN, CLOSE  
 Window ..... CHECK, CLEAN  
 Baggage Door ..... CLOSE & SECURE

### **PREFLIGHT EXTERIOR**

#### **RIGHT WING**

Surface Condition ..... FREE OF ICE, FROST, SNOW  
 Flaps, Ailerons ..... CHECK MOVEMENT, SECURITY  
 Hinges ..... CHECK FOR INTERFERENCE  
 Static Wicks ..... CHECK (3)  
 Wing Tip and Lights ..... CHECK  
 Fuel Tank ..... CHECK SUPPLY VISUALLY, SECURE CAP  
 Fuel Tank sump ..... DRAIN  
 (Check for WATER, SEDIMENT, & PROPER FUEL TYPE)  
 Fuel Vent ..... CLEAR  
 Wing Tie Down and/or Chocks ..... REMOVE

Main Gear Strut ..... CHECK (4.5 in)  
 Tire ..... CHECK  
 Brake Block and Discs ..... CHECK  
 Fresh Air Inlet ..... CLEAR

#### **NOSE SECTION**

General Condition ..... CHECK  
 Engine Cowling ..... SECURE  
 Windshield ..... CLEAN  
 Engine Oil ..... CHECK LEVEL (MIN 6 QTS)  
 Dipstick ..... PROPERLY SEATED  
 Oil Filler Inspection Door ..... SECURE  
 Propeller and Spinner ..... CHECK  
 Air Inlets ..... CLEAR  
 Chock ..... REMOVE  
 Nose Gear Strut ..... CHECK (3.25 in.)  
 Nose Wheel Tire ..... CHECK  
 Fuel Strainer ..... DRAIN  
 (Check for WATER, SEDIMENT, & PROPER FUEL TYPE)

#### **LEFT WING**

Surface Conditions ..... FREE OF ICE, FROST, SNOW  
 Fresh Air Inlet ..... CLEAR  
 Main Gear Strut ..... CHECK (4.5 in.)  
 Tire ..... CHECK  
 Brake Block and Discs ..... CHECK  
 Fuel Tank Sump ..... DRAIN  
 (Check for WATER, SEDIMENT, & PROPER FUEL TYPE)  
 Fuel Vent ..... CLEAR  
 Tie Down and Chock ..... REMOVE  
 Fuel Tank ..... CHECK VISUALLY, SECURE CAP  
 Pitot Mast ..... REMOVE COVER, HOLES CLEAR  
 Wingtip and Light ..... CHECK  
 Flaps, Ailerons ..... CHECK MOVEMENT, SECURITY  
 Hinges ..... CHECK FOR INTERFERENCE  
 Static Wicks ..... CHECK (3)

#### **FUSELAGE**

Antennas ..... CHECK  
 Empennage ..... FREE OF ICE, FROST, SNOW  
 Stabilator and Trim Tab ..... CHECK FOR INTERFERENCE  
 Rudder ..... NO DAMAGE or INTERFERENCE  
 Static Wicks ..... CHECK (3)  
 Tail Tie Down ..... REMOVE  
 Final Walk Around ..... COMPLETE

## BEFORE START

Preflight Inspection.....COMPLETE  
 Flaps.....RETRACT  
 Cabin Door.....CLOSE AND SECURE  
 Seats .....ADJUST  
 Seat Belts and Harnesses.....FASTEN, CHECK  
 Fuel Selector.....ON DESIRED TANK  
 Brakes.....SET  
 Circuit Breakers .....IN  
 Alternate Static Source.....OFF  
 Carburetor Heat/Alternate Air.....OFF  
 All Electrical Switches.....OFF  
 Passenger Briefing (SAFETY).....COMPLETE  
 BATT MASTER.....OFF  
 AVIONICS MASTER.....OFF  
 EMERG BATT Switch.....ARM  
 Standby Instruments and PFD operate....VERIFY  
 E VOLTS Indication.....23.3 VOLTS (Min)  
 BATT MASTR Switch.....ON

## STARTING ENGINE

Alternator Switch.....ON  
 Electric Fuel Pump..... ON  
 Magneto Switches.....ON  
 Strobe Lights.....ON  
**CARBURETED:**  
 Throttle.....1/4" OPEN  
 Mixture.....FULL RICH  
 Primer.....AS REQUIRED  
 Propeller Area.....CLEAR  
 Starter.....ENGAGE  
**FUEL INJECTED: COLD ENGINE**  
 Throttle.....1/4" OPEN  
 Mixture.....RICH, THEN IDLE CUTOFF  
 Propeller Area.....CLEAR  
 Starter.....ENGAGE  
 Mixture.....ADVANCE  
**FUEL INJECTED: HOT ENGINE**  
 Throttle.....1/2" OPEN  
 Mixture.....IDLE CUT-OFF  
 Propeller Area.....CLEAR  
 Starter.....ENGAGE  
 Mixture.....ADVANCE  
**IF ENGINE DOES NOT START.**.....PRIME  
 After engine starts:  
 Throttle.....ADJUST TO 1000RPM  
 Oil Pressure.....CHECK

## STARTING ENGINE WHEN FLOODED

Throttle .....OPEN FULL  
 Alternator switch.....ON  
 Electric Fuel Pump.....OFF  
 Magneto switches.....ON  
 Strobe Lights.....ON  
 Mixture.....IDLE CUT-OFF  
 Propeller Area.....CLEAR  
 Starter.....ENGAGE  
 Mixture (when engine starts).....ADVANCE  
 Throttle.....REDUCE TO 1000 RPM  
 Oil Pressure .....CHECK  
 Ammeter.....CHECK

## ENGINE FIRE DURING START

Starter.....CONTINUE TO CRANK ENGINE  
 Mixture.....IDLE CUT-OFF  
 Throttle .....OPEN  
 Electric Fuel Pump.....OFF  
 Fuel Selector .....OFF  
 ABANDON IF FIRE CONTINUES

## AFTER STARTING ENGINE

Throttle.....800-1200 RPM  
 Avionics Master Switch.....ON  
 Strobe Lights.....FIN  
 NAV Lights.....ON (night)  
 Fuel Pump.....OFF  
 Mixture.....FULL RICH BELOW 5000FT.  
 Flaps.....UP  
 Radios .....SET AND TEST  
 Flight Instruments .....CHECK/SET  
     a. Set fuel level on MFD  
     b. Check engine gauges on engine page on MFD  
     c. Annunciator press to test  
     d. Verify database is up to date  
     e. Set altitude and heading  
 Transponder.....GROUND  
 Fuel Selector .....SWITCH TANKS; Fuel Pump OFF  
 Dispatch.....RAMP OUT

## TAXI

Taxi Area.....CLEAR  
 Parking Brake.....RELEASE  
 Throttle.....APPLY SLOWLY  
 Brakes.....CHECK  
 Steering.....CHECK  
 Flight Instruments.....CHECK  
 Ailerons.....SET TO WIND CONDITIONS

## RUNUP

Brakes/Parking Brake.....	HOLD AND SET
Mixture.....	FULL RICH
Throttle.....	2000 RPM
Magneto.....	CHECK (max drop 175 rpm, max difference 50 rpm)
Ammeter.....	CHECK
Oil Temperature.....	CHECK
Oil Pressure.....	CHECK
Fuel Pressure/Flow.....	CHECK
Annunciator Panel.....	PRESS TO TEST
Carburetor Heat/Alternate Air.....	CHECK ( CH-75 RPM/AA-40 RPM drop)
Throttle.....	IDLE CHECK THEN 1000 RPM
Auto-Pilot .....	CHECK
a. Heading left, right, center	
b. Altitude climb, descent, level, and overpower	
c. Check auto trim can be turned off	
d. AP disconnect	
Controls.....	FREE
Trim .....	NEUTRAL
Crew Takeoff Briefing.....	COMPLETE

## BEFORE TAKEOFF

Flight Instruments (standby).....	CHECK/SET
Radios and Avionics.....	SET
Transponder.....	SET
Engine Gauges.....	CHECK
Fuel Quantity.....	SUFFICIENT
Fuel Selector .....	FULLEST TANK
BATT MASTR / ALTR Switch.....	ON
FUEL PUMP.....	ON
LEFT/RIGHT Magneto.....	ON
Landing Light.....	ON
Strobe Light .....	ON
Carburetor Heat/Alternate Air.....	OFF
Friction Handle.....	SET
Mixture.....	SET
Flaps .....	SET
Trim .....	NEUTRAL
Warning Lights.....	CHECK
Seat .....	ADJUST/SECURE
Belts/Harnesses.....	FASTENED
Crew Takeoff Briefing.....	AS REQUIRED
Air Conditioner (if installed).....	OFF
Doors and Windows.....	CLOSED & LATCHED

## ENGINE FAILURE DURING TAKEOFF

<b>If sufficient runway remains for a complete stop:</b>	
Airspeed.....	MAINTAIN SAFE AIRSPEED
Landing.....	LAND and STOP STRAIGHT AHEAD
Brakes.....	AS REQUIRED
<b>If insufficient runway remains:</b>	
Airspeed.....	MAINTAIN SAFE AIRSPEED
Flaps.....	AS REQUIRED ( Make only shallow turns to avoid obstructions)
<b>If sufficient altitude to attempt a restart:</b>	
Airspeed.....	76 KIAS
Fuel Selector.....	SWITCH to FULLEST TANK
Electric Fuel Pump.....	ON
Mixture.....	RICH
If power is not regained, proceed with power-off landing.	

## NORMAL TAKEOFF

Flaps.....	0°
Throttle.....	FULL
Rotate .....	60 KIAS
Climb Speed.....	76 KIAS

## SHORT FIELD TAKEOFF 25° FLAPS

Flaps.....	25°
Brakes.....	APPLY & HOLD
Throttle.....	FULL POWER
Engine Gauges.....	CHECK
Brakes.....	RELEASE
Rotate .....	55 KIAS
Climb Speed over Obstacle.....	64 KIAS
Climb Speed.....	76 KIAS
Flaps.....	SLOWLY RETRACT
Climb Speed.....	76 KIAS

## SOFT FIELD TAKEOFF 25° FLAPS

Flaps.....	25°
Elevator Control.....	TAIL LOW
Throttle.....	ADVANCE SLOWLY
Engine Gauges.....	CHECK
Accelerate.....	IN GROUND EFFECT TO CLIMB SPEED
Climb Speed with Obstacle.....	64 KIAS
Climb Speed without Obstacle.....	76 KIAS
Flaps.....	SLOWLY RETRACT

## ENROUTE CLIMB

Airspeed.....	87 KIAS
Throttle.....	FULL OPEN
Landing Light.....	OFF
Flaps.....	UP

### CRUISE

Power ..... SET  
 Trim ..... SET  
 Mixture ..... FULL RICH BELOW 5000ft.  
 Electric Fuel Pump ..... OFF  
 Fuel Pressure ..... CHECK  
 Engine Gauges ..... CHECK

### AFTER LANDING

Flaps ..... UP  
 Transponder ..... GROUND  
 Fuel Pump ..... OFF  
 Landing Lights ..... OFF (Except at Night)  
 Strobe Lights ..... FIN STROBE  
 Mixture ..... FULL RICH BELOW 5000ft.  
 Ailerons ..... SET TO WIND CONDITIONS

### APPROACH

ATIS/AWOS ..... CHECK  
 Altimeter ..... SET  
 Nav Instruments ..... SET  
 Stations ..... IDENTIFY  
 HSI ..... SET  
 Mode ..... VLOC or GPS  
 Comm Radios ..... SET  
 Approach Briefing ..... COMPLETE  
 Before Landing Checklist ..... COMPLETE  
 Backup Nav & Radios ..... AS DESIRED

### SECURING AIRCRAFT

Strobe and Nav Lights ..... OFF  
 Electrical Equipment (Fans, AC, Pitot Heat, etc.) ..... OFF  
 Avionics Master Switch ..... OFF  
 Throttle ..... 1000 RPM  
 Mixture ..... IDLE CUT-OFF  
 WAIT FOR PROP TO STOP COMPLETELY  
 Magnetos ..... OFF  
 Alternator Switch ..... OFF  
 Master Switch ..... OFF  
 EMERG BATT ..... OFF  
 Parking Brake ..... OFF  
 Tiedowns or Chocks ..... SECURE  
 Trash ..... REMOVE

### **DESCENT NORMAL**

Throttle ..... AS REQUIRED (2500 RPM MAX)  
 Airspeed ..... AS REQUIRED (122 KIAS MAX)  
 Mixture ..... RICH  
 Carburetor Heat ..... AS REQUIRED

### **DESCENT POWER OFF**

Throttle ..... CLOSE  
 Airspeed ..... AS REQUIRED  
 Mixture ..... AS REQUIRED  
 Power ..... VERIFY WITH THROTTLE EVERY 30 SECONDS  
 Carburetor Heat ..... AS REQUIRED

### **EMERGENCY PROCEDURES**

#### ENGINE FIRE DURING START

Starter ..... CONTINUE to CRANK ENGINE  
 Mixture ..... IDLE CUT-OFF  
 Throttle ..... OPEN  
 Electric Fuel Pump ..... OFF  
 Fuel Selector ..... OFF

#### **ABANDON IF FIRE CONTINUES**

#### ENGINE FAILURE DURING TAKEOFF

If sufficient runway remains for a complete stop:  
 Airspeed ..... MAINTAIN SAFE AIRSPEED  
 Landing ..... LAND and STOP STRAIGHT AHEAD  
 Brakes ..... AS REQUIRED  
 If insufficient runway remains:  
 Airspeed ..... MAINTAIN SAFE AIRSPEED  
 Flaps ..... AS REQUIRED  
 ( Make only shallow turns to avoid obstructions)

If sufficient altitude has been gained to attempt a restart:  
 Airspeed ..... 76 KIAS  
 Fuel Selector ..... SWITCH to tank containing fuel  
 Electric Fuel Pump ..... ON  
 Mixture ..... RICH  
 If power is not regained, proceed with power-off landing.

### BEFORE LANDING

Seat ..... ADJUST/SECURE  
 Belts/Harnesses ..... FASTEN/CHECK  
 Electric Fuel Pump ..... ON  
 Fuel Selector ..... FULLEST TANK  
 Mixture ..... RICH  
 Landing Light ..... ON  
 Carburetor Heat/Alternate Air ..... AS REQUIRED  
 Air Conditioning (if installed) ..... OFF

### NORMAL LANDING

Power ..... AS REQUIRED  
 Flaps ..... BELOW 102 KIAS  
 Airspeed ..... 70 KIAS ON FINAL (65 for Short/ Soft Field)  
 Braking ..... AS REQUIRED

### **BALKED LANDING**

Throttle ..... FULL POWER  
 Flaps ..... RETRACT TO 25°  
 Airspeed ..... 64 KIAS  
 Climb Speed ..... 76 KIAS AFTER OBSTACLE CLEARED  
 Flaps ..... SLOWLY RETRACT

## EMERGENCY PROCEDURES CONT'D

### ENGINE FAILURE DURING FLIGHT

#### RESTART PROCEDURES

Airspeed.....76 KIAS  
Fuel Selector .....SWITCH TANKS  
Electric Fuel Pump.....ON  
Mixture.....RICH  
Carburetor Heat/Alternate Air.....ON  
LEFT/RIGHT MAG Switches..... OFF then ON  
one at a time

**IF POWER IS NOT RESTORED, PREPARE FOR  
POWER OFF LANDING**

### POWER OFF LANDING

Airspeed.....MAINTAIN 76 KIAS  
Air Conditioning (if installed).....OFF  
Landing Pattern.....ESTABLISH  
*When committed to landing:*  
Airspeed.....66 KIAS  
Flaps.....AS DESIRED  
THROTTLE.....CLOSE  
MIXTURE.....IDLE CUT-OFF  
LEFT/RIGHT MAG Switches.....OFF  
BATT MASTR Switch.....OFF  
ALTR Switch.....OFF  
FUEL Selector.....OFF

### FIRE IN FLIGHT

#### ELECTRICAL FIRE (Smoke in Cabin)

EMERG BATT Switch.....VERIFY ARM  
Master Switch.....OFF  
Alternator Switch.....OFF  
Vents.....OPEN  
Cabin Heat.....OFF  
Fire.....EXTINGUISH.  
**LAND AS SOON AS PRACTICAL**

### ENGINE FIRE

Fuel Selector .....OFF  
Throttle.....CLOSED  
Mixture.....IDLE CUT-OFF  
Electric Fuel Pump.....CHECK OFF  
Heater.....OFF  
Defroster.....OFF

***IF FIRE PERSISTS USE AIRSPEED AS  
REQUIRED TO EXTINGUISH FIRE***

**PROCEED WITH POWER OFF LANDING  
PROCEDURE**

### ELECTRICAL FAILURES

**NOTE:** Anytime the bus voltage is below 25 Vdc, the low bus voltage Annunciator will be illuminated.

**ALT ANNUNCIATOR LIGHT ILLUMINATED:**

Ammeter.....CHECK TO VERIFY INOP. ALTERNATOR

**IF AMMETER SHOWS ZERO:**

Alternator Switch.....OFF  
Electrical Load.....REDUCE TO MINIMUM  
Alternator Circuit Breaker.....CHECK AND RESET  
AS REQUIRED  
Alternator Switch.....ON

**IF POWER NOT RESTORED:**

Alternator Switch.....OFF  
Electrical Load.....REDUCE.

**LAND AS SOON AS PRACTICAL**

### ELECTRICAL OVERLOAD

(Alternator over 20 amps above known electrical load)  
Alternator Switch.....ON  
Master Switch.....OFF

**IF ALTERNATOR LOADS ARE REDUCED:**

Electrical Load.....REDUCE TO MINIMUM

**LAND AS SOON AS PRACTICAL**

**NOTE:** Due to increased system voltage and radio frequency noise, operation with ALT switch ON and BATT switch OFF should be made only when required by an electrical system failure.

**IF ALTERNATOR LOADS ARE NOT REDUCED:**

Alternator Switch.....OFF  
Master Switch.....AS REQUIRED

**LAND AS SOON AS POSSIBLE.**

**ANTICIPATE COMPLETE ELECTRICAL FAILURE.**

## EMERGENCY PROCEDURES CONT'D

### ENGINE ROUGHNESS

Carburetor Heat/Alternate Air.....ON

IF ROUGHNESS CONTINUES >1 MIN:

Carburetor Heat/Alternate Air.....OFF

Mixture.....ADJUST MAX SMOOTHNESS

Electric Fuel Pump.....ON

Fuel Selector.....SWITCH TANKS

Engine Gauges.....CHECK

Magneto Switch.....L THEN R THEN BOTH

*If operation is satisfactory on either magneto, continue on that magneto at reduced power and full RICH mixture to first airport.*

PREPARE FOR POWER OFF LANDING

### LOSS OF OIL PRESSURE

Land as Soon as Practical and Investigate the Cause.

**Prepare for Power off Landing**

### LOSS OF FUEL PRESSURE

Electric Fuel Pump.....ON

Fuel Selector .....SWITCH

### HIGH OIL TEMPERATURE

Land at Nearest Airport and Investigate the Problem

**Prepare For Power Off Landing**

### CARBURETOR ICING (If Equipped)

Carburetor Heat.....ON

Mixture.....ADJUST FOR MAX SMOOTHNESS

### OPEN DOOR

*If both upper and lower latches are open, the door will trail slightly open and airspeeds will be reduced slightly.*

**TO CLOSE DOOR IN FLIG HT:**

Airspeed.....87 KIAS

Cabin Vents.....CLOSE

Storm Window.....OPEN

If Top Latch is open.....LATCH

If Side Latches Are Open.....PULL ON ARM  
*REST WHILE MOVING LATCH HANDLE TO LATCHED POSITION*

If Both Latches Are Open .....LATCH SIDE LATCH THEN TOP

### SPIN RECOVERY

Throttle.....IDLE

Control Wheel.....FULL FORWARD

Ailerons.....NEUTRAL

Rudder.....FULL OPPOSITE TO DIRECTION OF ROTATION

Rudder.....NEUTRAL WHEN ROTATION STOPS

Control Wheel..... SMOOTHLY REGAIN LEVEL FLIGHT ATTITUDE