



REV. 1/23/2017

**Piper Arrow N872WL
PA-28R-200 (P28R)**

Preflight Inspection

CABIN

Documents (ARROW).....ON BOARD
 Next Maintenance.....CHECK
 Control Wheel Lock.....REMOVE
 Gear Selector.....CHECK DOWN
 Ignition Switch.....OFF
 Avionics Master.....OFF
 Master Switch.....ON
 Gear Lights.....CHECK **3 GREEN**
 Fuel Quantity.....CHECK
 Electric Trim.....CHECK / NEUTRAL
 Lights.....CHECK
 Pitot Heat.....CHECK
 Stall Warning.....CHECK
 Master Switch.....OFF
 Wing Flaps.....DOWN

RIGHT WING

Wing Flap.....SECURE
 Aileron.....FREE / SECURE
 Wing Tip / Lights.....CHECK
 Leading Edge.....INSPECT
 Cabin Air Inlet.....CHECK CLEAR
 Wing Tie-down.....REMOVE
 Fuel Vent.....CHECK CLEAR
 Main Tire (27 PSI) / Brake.....CHECK
 Main Gear Strut (2") / Well.....CHECK
 Gear Position Switch.....CHECK
 Fuel Sump.....DRAIN / CHECK
 Fuel Quantity / Cap.....CHECK / SECURE

NOSE

Windshield.....INSPECT / CLEAN
 Engine Oil.....6-8 Quarts
 Exhaust Stack.....INSPECT / SECURE
 Cowl Scoop.....CHECK
 Propeller / Spinner.....CHECK
 Alternator Belt.....CHECK
 Landing Light.....CHECK
 Induction Inlet.....CLEAR
 Nose Gear / Tire (30 PSI).....CHECK
 Strut (2.75") / Gear Well.....CHECK
 Gear Position Switches.....CHECK
 Fuel Sump.....DRAIN / CHECK

LEFT WING

Cabin Air Inlet.....CHECK
 Main Tire (27 PSI) / Brake.....CHECK
 Main Gear Strut (2") / Well.....CHECK
 Squat / Position Switches.....CHECK
 Fuel Sump.....DRAIN / CHECK
 Fuel Vent.....CHECK / CLEAR
 Wing Tie-down.....REMOVE
 Pitot / Static Port.....CHECK
 Fuel Quantity / Cap.....CHECK / SECURE
 Leading Edge / Stall Switch.....CHECK
 Wing Tip / Lights.....CHECK
 Aileron.....FREE / SECURE
 Wing Flap.....SECURE

FUSELAGE / EMPENNAGE

Fuselage.....INSPECT Rivets and Skin
 Stabilator / Anti-servo.....FREE / SECURE
 Vertical Stabilizer.....CHECK
 Rudder.....SECURE
 Tail Tie-Down.....REMOVE
 Baggage Door.....SECURE

**This checklist is not a substitute for the Piper Cherokee Arrow 200 B Owner's Handbook.
 All Information contained herein is deemed accurate but not guaranteed.**

Preflight Inspection

Before Engine Start

Preflight Inspection.....COMPLETE
 Passenger Briefing.....COMPLETE
 SPOT Unit.....ON / TRACK
 Seats / Belts / Shoulder Belts.....ADJUST
 Door.....SECURE
 Fuel Selector Valve.....FULLEST TANK
 Avionics Master.....OFF
 Autopilot / Electrical Equipment.....OFF
 Circuit Breakers.....CHECK IN
 Brakes.....SET / HOLD

Engine Start

COLD

Throttle.....OPEN 1/2 INCH
 Propeller.....FULL FORWARD
 Rotating Beacon.....ON
 Master Switch.....ON
 Fuel Pump.....ON
 Mixture.....FULL RICH (3 sec.)
 Mixture.....IDLE CUT-OFF
 Propeller Area.....CLEAR
 Ignition Switch.....START (turn and push)
 Mixture.....FULL RICH
 Throttle.....800-1200 RPM

Oil Pressure.....CHECK
 NAV Lights.....ON
 Avionics Master.....ON

HOT START

Throttle.....OPEN 1/2 INCH
 Propeller.....FULL FORWARD
 Mixture.....IDLE CUT-OFF
 Rotating Beacon.....ON
 Master Switch.....ON
 Fuel Pump.....ON
 Propeller Area.....CLEAR
 Ignition Switch.....START (turn and push)
 Mixture.....ADVANCE TO 3/4 RICH
 Throttle.....800-1200 RPM

Oil Pressure.....CHECK
 Avionics Master.....ON
 NAV Lights.....ON

**(For FLOODED START: Throttle FULL,
 Fuel pump OFF, Mixture IDLE CUT-OFF
 then 3/4 RICH when engine fires.)**

Engine Start / Taxi

Before Taxi

Mixture.....LEAN for Taxi
 Wing Flaps.....RETRACT
 Radios / GPS.....SET / VOLUME Adjust
 ATIS and CLEARANCE.....OBTAIN
 Lights.....NAV / TAXI (Landing)
 Transponder.....ALT / As Required
 Brakes.....RELEASE / CHECK

Before Takeoff

Brakes.....SET / HOLD
 Door / Window.....CLOSED / LOCKED
 Seats / Belts.....SECURE / CHECK
 Flight Controls.....FREE / CORRECT
 Stabilator / Rudder Trim.....TAKEOFF
 Fuel Selector Valve.....FULLEST TANK
 Alternate Air.....OFF / CLOSED

RUNUP

Mixture.....RICH
 Throttle.....2000 RPM
 Magnetos.....CHECK RPM DROP
 Max drop: 175, Difference: 50
 Prop Cycle 3 Times: DROP RPM.....
 INCREASE MP....
 DROP Oil Press....
 Prop.....FULL FORWARD
 Fuel Pump.....OFF / Check Press / ON
 Engine Gauges.....CHECK
 Ammeter.....CHECK LOAD
 Suction.....CHECK 4.8-5.2
 Flight Instruments.....SET / CHECK
 Throttle.....IDLE / 1000 RPM
 Quadrant Friction Lock.....SET
 Autopilot.....CHECK / OFF
 Radios / GPS.....SET / CHECK
 Takeoff Procedure.....BRIEFED
 Clearance.....OBTAINED
 Takeoff Time.....RECORD
 Lights.....ALL ON (Wing / Anti-Collision)
 Transponder.....ALT (auto activated)
 Brakes.....RELEASE

Missoula ATIS.....	126.65
Missoula Ground.....	121.90
Missoula Tower.....	118.40
NorthStar Jet Unicom.....	123.30

Normal Takeoff

Trim.....SLIGHTLY AFT
Wing Flaps.....UP (Soft - 25°)
Fuel Pump.....ON
Mixture.....RICH
Power.....FULL THROTTLE / 2700 RPM
Rotate.....60-70 MPH
Airspeed.....**Vy 85 MPH (95 MPH gear UP)**
Positive Rate of Climb
Gear Selector.....UP
Wing Flaps.....RETRACT through 95 MPH

Short Field Takeoff

Trim.....SLIGHTLY AFT
Wing Flaps.....25°
Fuel Pump.....ON
Brakes.....HOLD
Power.....FULL THROTTLE / 2700 RPM
Mixture.....SET for maximum power
Brakes.....RELEASE
Rotate.....60-65 MPH
Airspeed.....**Vx 80 MPH**
Gear Selector.....UP*
WHEN CLEAR OF OBSTACLE
Airspeed.....**Vy 95 MPH**
Wing Flaps.....RETRACT SLOWLY

Normal Climb

Wing Flaps.....UP / VERIFIED
Airspeed.....110 MPH
Power.....25 in. / 2500 RPM
Mixture.....LEAN As Required (12-14 GPH)
Fuel Pump.....OFF Above 1000' AGL
Fuel Pressure.....CHECK
Wing Lights.....OFF
Engine Gauges.....CHECK / MONITOR

* During climb below speeds of 85 MPH hold the emergency gear lever in the "override up" position until the back-up extender system no longer commands the gear down. This will occur at approximate airspeeds of 85 MPH IAS at sea level to 100 MPH IAS at 10,000 feet, with a straight line variation between.

Takeoff / Enroute / Before Landing

Max Performance Climb

Wing Flaps.....UP / VERIFIED
Airspeed.....**Vy 95 MPH**
Power.....FULL THROTTLE / 2700 RPM
Mixture.....LEAN As Required
Fuel Pump.....OFF Above 1000' AGL
Fuel Pressure.....CHECK
Wing Lights.....OFF
Engine Gauges.....CHECK / MONITOR

Cruise

Power.....18-26 in. / 2000 or 2400 RPM
(75% or less).....*Avoid continuous 2000-2350 RPM*
Mixture.....LEAN 50° rich of peak EGT
Stabilator / Rudder Trim.....ADJUST
Heading Indicator.....SET
Lights.....AS DESIRED
Autopilot.....AS DESIRED
Switching Fuel Tanks
Fuel Pump.....ON
Switch Tanks.....Check Fuel Pressure
Fuel Pump.....OFF

Descent

Power.....AS DESIRED
Mixture.....ENRICH as required
Landing Light.....ON
Radios / Weather.....SET / OBTAIN

Before Landing

Fuel Selector Valve.....FULLEST TANK
Fuel Pump.....ON
GEAR.....DOWN Check **3 GREEN**
(Below 150 MPH, 125 MPH preferred)
Mixture.....RICH
Propeller.....FULL FORWARD
Seat Belts / Shoulder Harness.....ON
Wing Flaps.....AS DESIRED
(Below 125 MPH)
Lights.....ALL ON
Autopilot.....OFF

Normal Landing

Airspeed.....90-100 MPH (Flaps UP)
Wing Flaps.....AS DESIRED
(Below 125 MPH)
Airspeed.....83-90 MPH (Flaps DOWN)

Short Field Landing

Airspeed.....90 MPH
Wing Flaps.....40°
(Below 125 MPH)
Airspeed.....83 MPH
Power.....AS REQUIRED
HOLD NOSE Off.....Then Ease Down
Wing Flaps.....RETRACT
Brakes.....APPLY

Go-Around

Power.....FULL THROTTLE / 2700 RPM
Airspeed.....**Vy 85 MPH (95 MPH gear UP)**
Gear Selector.....UP*
Wing Flaps.....RETRACT SLOWLY

After Landing

Wing Flaps.....RETRACT
Fuel Pump.....OFF
Wing / Anti-Collision Lights.....OFF
Mixture.....LEAN for Taxi
Transponder.....ALT / As Required
Radios / Clearance.....SET / OBTAIN

Shutdown / Secure

Transponder.....STBY
Flight Plan.....CLOSED
Avionics Master.....OFF
Autopilot / Electrical.....OFF
Throttle.....IDLE
Mixture.....IDLE CUT-OFF
Ignition Switch.....OFF
Master Switch.....OFF
Control Lock.....INSTALL
SPOT Unit.....OFF
Pitot Cover.....INSTALL
Aircraft Hobbs / Tach / Chocks / Tie-down

Post-Flight Walk-Around

Landing Gear Emergencies

Emergency Gear Extension

Master Switch.....ON
Circuit Breakers.....CHECK
Panel Lights.....OFF in daytime
Check Lights / Bulbs.....**3 GREEN**
Gear Selector.....CYCLE / DOWN
Airspeed.....100 MPH
Emergency Gear Lever.....HOLD DOWN
Fishtail aircraft if necessary to lock gear
IF GEAR IS NOT DOWN & LOCKED:
Emergency Gear Lever.....HOLD UP
Fishtail aircraft if necessary to lock gear

Gear Up Emergency Landing

Airspeed.....110 MPH
Wing Flaps.....UP / AS NECESSARY
Throttle.....CLOSE
Ignition / Master Switches.....OFF
Fuel Selector.....OFF
Mixture.....IDLE CUT-OFF
Seat Belts.....SECURE
Emergency Gear Lever.....HOLD UP

Landing / Shutdown

Fires

During Start on the GROUND

Starter.....CONTINUE TO CRANK
 Mixture.....IDLE CUT-OFF
 Throttle.....OPEN
 Fuel Pump.....OFF
 Fuel Selector Valve.....OFF if time allows
 Master Switch.....OFF
 ABANDON AIRCRAFT if fire continues
 ACTIVATE FIRE EXTINGUISHER

Engine Fire in Flight

Ignition Switch.....OFF
 Throttle.....CLOSE
 Mixture.....IDLE CUT-OFF
 Fuel Selector Valve.....OFF
 Fuel Pump.....CHECK OFF
 Master Switch.....OFF
 DIVE to blow out fire (if altitude permits)
 Proceed with POWER OFF LANDING

Electrical Fire in Flight (smoke in Cabin)

Master Switch.....OFF
 Vents.....OPEN
 Cabin Heat.....OFF
 ACTIVATE FIRE EXTINGUISHER
 Cabin.....VENTILATE
 LAND as soon as practicable

Power Off Landing

Airspeed.....105 MPH
 Landing Location.....SELECT
 Radio.....ANNOUNCE POSITION
 Seat Belts / Shoulder Harness....SECURE
 Fuel Selector Valve.....OFF
 Mixture.....IDLE CUT-OFF
 Ignition Switch / Master Switch.....OFF
 Wing Flaps.....AS REQUIRED
 Door.....UNLATCHED
 Airspeed.....90 MPH for Landing
 Landing Gear.....AS DESIRED

[Gear Up Landing Procedure on Previous Page](#)

Emergency Procedures

Engine Failures

Take-Off Roll

Throttle.....IDLE
 Fuel Pump.....OFF
 Brakes.....APPLY
 Wing Flaps.....RETRACT
 Mixture / Ignition.....IDLE CUT-OFF / OFF

Immediately After Take-Off

Airspeed.....105 MPH
 Fuel Selector Valve.....SWITCH TANKS
 Fuel Pump.....ON
 Mixture.....RICH
 Alternate Air.....ON
 Emergency Gear Lever.....AS REQUIRED
 If power is not restored, proceed with
 POWER OFF LANDING procedure

During Flight

Airspeed.....105 MPH
 Fuel Selector Valve.....SWITCH TANKS
 Fuel Pump.....ON
 Mixture.....RICH
 Alternate Air.....ON
 Throttle.....1/2 OPEN
 Ignition Switch.....L / R / BOTH
 (START if Prop has stopped)
Power Restored - Alternate Air.....OFF
 Fuel Pump.....OFF

Gear Emergencies

Emergency Gear Extension

Master Switch.....ON
 Circuit Breakers.....CHECK
 Panel Lights.....OFF in daytime
 Check Lights / Bulbs.....3 GREEN
 Gear Selector.....CYCLE / DOWN
 Airspeed.....100 MPH
 Emergency Gear Lever.....HOLD DOWN
 Fishtail aircraft if necessary to lock gear
IF GEAR IS NOT DOWN & LOCKED:
 Emergency Gear Lever.....HOLD UP
 Fishtail aircraft if necessary to lock gear

V Speeds

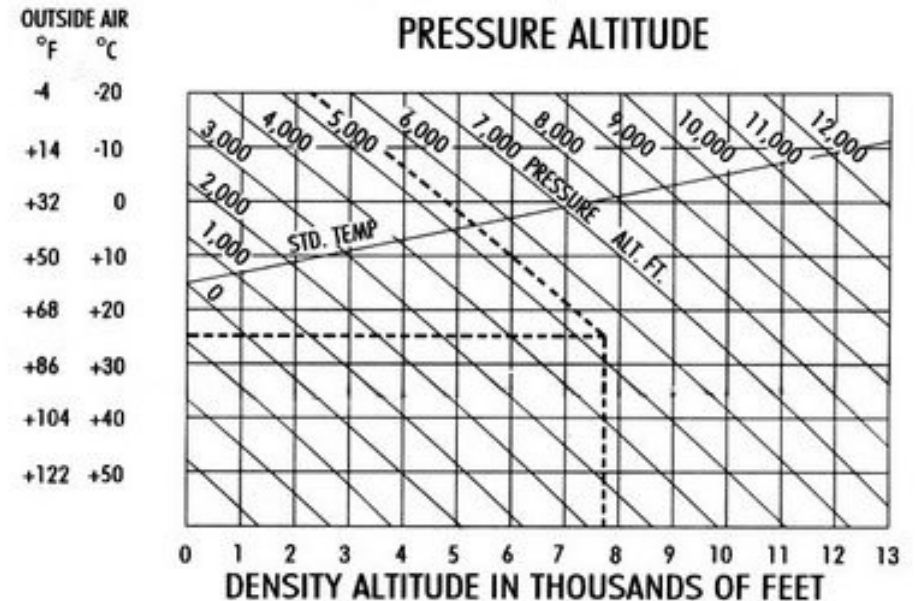
PA-28R-200 B Arrow Airspeeds

V Speed	MPH
V _{GLIDE}	105
V _{SO}	64
V _S	70
V _R	65
V _X	81-91
V _Y	85-95
V _{FE}	125
V _{NO}	170
V _{NE}	214
Max X-wind	20 (17 KTS)
V _A	134
V _{LE}	150
V _{LO}	125

Light Gun Signals

GROUND	SIGNAL	AIR
Cleared for Takeoff		Cleared to Land
Cleared to Taxi		Return for Landing
STOP		Give Way Continue Circling
Taxi Clear of Runway		Airport Unsafe DO NOT LAND
Return to Starting Point on Airport		Not Applicable
Exercise EXTREME CAUTION		Exercise EXTREME CAUTION

Density Altitude Chart



V-Speeds / Light Gun Signals / Density Altitude Chart