



PA28-180
ARCHER II Quick
Reference Handbook

ALL GREY SHADED AREAS ARE
MEMORY ITEMS

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Normal Procedures

PREFLIGHT CHECK

Control Wheel	RELEASE BELTS
Avionics	OFF
Master Switch	ON
Fuel Quantity Gauges	CHECK
Master Switch	OFF
Ignition	OFF
Exterior	CHECK FOR DAMAGE
Control Surfaces	CHECK FOR INTERFERENCE FREE OF ICE, SNOW, FROST
Hinges	CHECK FOR INTERFERENCE
Wings	FREE OF ICE, SNOW, FROST
Stall Warning	CHECK
Tie Down & Chocks	REMOVE
Navigation & Other Lights	CHECK
Fuel Tanks	CHECK SUPPLY VISUALLY & SECURE CAPS
Fuel Tank Sumps	DRAIN
Fuel Vents	OPEN
Main Gear Struts	PROPER INFLATION (4.5in.)
Tires	CHECK
Brake Blocks	CHECK
Pitot Head	REMOVE COVER & HOLES CLEAR
Windshield	CLEAN (INSIDE & OUT)
Propeller & Spinner	CHECK
Fuel & Oil	CHECK FOR LEAKS
Oil	CHECK LEVEL
Dipstick	PROPERLY SEATED
Cowling	SECURE
Inspection Covers	SECURE
Nose Wheel Tyre	CHECK
Nose Gear Strut	PROPER INFLATION (3.25in.)
Air Inlets	CLEAR
Alternator Belt	CHECK TENSION
Tow Bar & Control Locks	STOW

Baggage.....STOW PROPERLY & SECURE
Baggage DoorCLOSE & SECURE
Fuel Strainer.....DRAIN
Primary Flight Controls PROPER OPERATION
Cabin Door..... CLOSED & SECURE
Required Papers..... ON BOARD
Seat Belts & Harness.....FASTEN/ADJUST & CHECK INERTIA REEL

BEFORE START

Pre-Flight and Passenger Brief COMPLETE
Flight Authorisation..... COMPLETE
Maintenance ReleaseCHECKED & SIGNED
Seats and Seat Belts..... ADJUSTED & SECURED
Fuel Selector DESIRED TANK (LEFT OR LEAST)
Radios / Avionics OFF
Circuit Breakers IN
Master Switch..... ON
Electric Fuel Pump ON
Fuel PressureCHECKED
Electric Fuel Pump OFF
Carburettor Heat..... COLD
Mixture..... FULL RICH
Throttle ¼” OPEN (COLD) ½” OPEN (HOT)
Primer 1-3 STROKES (COLD) 0 (HOT)
Park Brake SET ON
Propeller Area CLEAR

»Proceed with after start«

FLOODED ENGINE START

ThrottleOPEN FULL
Master Switch..... ON
Electric Fuel Pump OFF
Mixture..... ICO
Starter ENGAGE
Mixture..... ADVANCE
Throttle RETARD
Oil Pressure..... CHECK GREEN

STARTING WITH EXTERNAL POWER SOURCE

Master Switch..... OFF
All electrical Equipment OFF
Terminals CONNECT
External Power Plug.....INSERT IN FUSELAGE

»Proceed with normal start«

Throttle LOWEST POSSIBLE RPM
External Power Plug..... DISCONNECT FROM FUSELAGE
Master Switch..... ON / CHECK AMMETER
Oil Pressure..... CHECK

AFTER START

Starter ENGAGE
Throttle ADJUST
Oil Pressure..... INDICATING GREEN WITHIN 10 SEC
Avionics and Intercom.....ON / SET / CHECKED
Alternator..... CHARGING
Lights TAXI LIGHT ON
Mixture..... LEANED
Throttle800 to 1200 RPM
Oil Pressure.....CHECKED GREEN

TAXI CHECKS

BrakesCHECKED
Flight Instruments TC, AH, DI AND COMPASS CHECKED

LINE UP

Pitot Heat	A/R
Instruments	CHECK ALIGNMENT
Switches	LIGHTS / PUMPS A/R
Transponder / Trim	ALT / TAKE OFF
Altimeter	WITHIN TOLERANCE

ROLLING CHECKS

Power	STATIC RPM
Engine Instruments	GREEN
Airspeed	RISING

AFTER TAKE OFF

Gear	FIXED DOWN
Flaps	UP
Power	FULL
Temperature and Pressure Indicators	CHECKED GREEN
Switches	OFF
Mixture	FULL RICH
Centreline	ALIGNED

TOP OF CLIMB

Fuel Log	COMPLETE / CORRECT TANK
Mixture	LEANED (AS PER POH)
QNH	AREA
DI / Compass	ALIGNED
Cowl Flaps	A/R
Aids / Audio	SOURCE / TUNED / IDENTIFIED / TESTED
Radios	SET / CHECKED

TOP OF DESCENT

Fuel Log COMPLETE
Mixture FULL RICH
QNH LOCAL
DI / Compass ALIGNED
Cowl Flaps A/R
Aids / Audio SOURCE / TUNED / IDENTIFIED / TESTED
Radios SET / CHECKED

PRE LANDING CHECKS

Brakes PRESSURE CHECKED & OFF
Undercarriage FIXED DOWN
Mixture RICH
Fuel ON & QUANTITY CHECKED
Instruments ALIGNED / WITHIN TOLERANCES
Switches LIGHTS / PUMPS A/R
Hatches & Harnesses SECURE
Pilot Activated Lighting AD LIGHTING CONSIDERED

FINAL CHECKS

Pitch FULL FINE
Undercarriage FIXED DOWN
Flaps A/R
Carburettor Heat COLD
Check Windsock CHECKED
Clearance OBTAINED

AFTER LANDING

Transponder STBY
Electric Fuel Pump OFF
Strobes & Landing light..... OFF
Taxi Light..... ON
Mixture..... LEANED
Trims NEUTRAL
FlapsRETRACTED

STOPPING ENGINE

Radios / Avionics..... OFF
Electric Fuel Pump OFF
Throttle 800-1000 RPM
MagnetosCHECK DROP
Mixture..... ICO
Magnetos OFF
Master Switch..... OFF

SECURING AEROPLANE

Parking BrakeSET
Control Wheel SECURE
Flaps FULL UP
Wheel Chocks IN PLACE
Tie Downs & Covers SECURE

Abnormal Procedures

ELECTRICAL FAILURE

ALT Annunciator Light Illuminated:

Ammeter CHECK TO VERIFY INOP. ALT

If Ammeter Shows Zero:

ALT SwitchOFF

Reduce electrical loads to a minimum:

ALT Circuit BreakerCHECK & RESET AS REQUIRED

ALT SwitchON

If power not restored:

ALT SwitchOFF

If alternator output cannot be restored, reduce electrical load and land as soon as practicable.

ELECTRICAL OVERLOAD

(ALT OVER 20 AMPS ABOVE KNOWN ELECTRICAL LOAD)

ALT SwitchON

BATT SwitchOFF

If alternator loads are reduced:

Electrical loads..... REDUCE TO MINIMUM

Land as soon as practical.

If alternator loads are not reduced:

ALT SwitchOFF

BATT SwitchAS REQUIRED

OPEN DOOR

To close door in flight:

Slow aeroplane to 87 KIAS

Cabin ventsCLOSED

Storm Window..... OPEN

If upper latch is openLATCH

If side latch is openOPEN TOP LATCH, PUSH DOOR

FURTHER OPEN, CLOSE RAPIDLY, LATCH TOP LATCH

LATCH HANDLE TO LATCHED POSITION

If both latches are open LATCH SIDE, then LATCH TOP

ENGINE ROUGHNESS

Carburetor Heat.....ON

If roughness continues for 1 minute:

Carburetor Heat.....OFF

Mixture..... ADJUDT FOR MAX SMOOTHNESS

Electric Fuel PumpON

Fuel SelectorSWITCH TANKS

Engine GaugesCHECK

Magneto Switch“L” then “R” then “BOTH”

If operation is satisfactory on either one, continue on that magneto at reduced power and full “RICH” mixture to first airport. Prepare for power off landing.

LOSS OF OIL PRESSURE / HIGH OIL TEMP

Land as soon as possible and investigate cause.

Prepare for power off landing.

LOSS OF FUEL PRESSURE

Electric Fuel PumpON

Fuel Selector CHECK ON FULLEST TANK

CARBURETOR ICING

Carburetor Heat.....ON
Mixture..... ADJUDT FOR MAX SMOOTHNESS

Emergency Procedures

ENGINE FIRE DURING START

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

Abandon if fire continues

ENGINE POWER LOSS DURING TAKE OFF

If sufficient runway remains for a normal landing:

Land straight ahead

If insufficient runway remains:

- Maintain Safe Airspeed
- Make only shallow turn to avoid obstructions
- Flaps as situation requires

If sufficient altitude has been gained to attempt a restart:

- Maintain safe airspeed
- Fuel Selector.....SWITCH TO TANK CONTAINING FUEL
- Fuel Pump
- MixtureRICH
- Carburetor Heat.....ON
- Engine Gauges.....CHECK FOR INDICATION OF CAUSE OF POWER LOSS
- Primer
- LOCKED

If power is not regained, proceed with power off landing.

ENGINE POWER LOSS IN FLIGHT

Fuel SelectorSWITCH TO TANK CONTAINING FUEL
Electric Fuel PumpON
MixtureRICH
Carburetor HeatON
Engine Gauges CHECKED FOR INDICATION OF POWER LOSS
Primer CHECKED LOCKED

If no fuel pressure indicated, check tank selector position to be sure it is on a tank containing fuel.

If Power is Restored:

Carburetor Heat OFF
Electric Fuel Pump OFF

If power is not restored prepare for power off landing & trim for 76 KIAS

Power Off Landing: (Once committed to landing)

Ignition OFF
Master Switch OFF
Fuel Selector OFF
MixtureICO
Seatbelts and Harnesses TIGHT

FIRE IN FLIGHT

Source of fire CHECK

ELECTRICAL FIRE (smoke in cabin):

Master Switch OFF

Air Vents OPEN

Cabin Heat OFF

Land as soon as practicable

ENGINE FIRE:

Fuel Selector OFF

Throttle CLOSED

Mixture ICO

Electric fuel pump CHECK OFF

Heater and Defroster OFF

Proceed with power off landing procedure

SPIN RECOVERY

Throttle IDLE

Ailerons NEUTRAL

Rudder FULL OPPOSITE TO DIRECTION OF ROTATION

Control Wheel FULL FORWARD

Rudder NEUTRAL (when rotation stops)

Wing Flaps Up (if extended)

Control Wheel A/R TO SMOOTHLY

REGAIN LEVEL FLIGHT

Basair SOP

PASSENGER BRIEF

- No smoking in aircraft
- Proper use and adjustment of seat belts
- Location and proper operation of emergency exits
- Location of life jackets, first aid kits and fire extinguishers, and if required, survival kits and life rafts.
- Requirement of a passenger occupying a control seat, not to interfere with the controls during the flight
- Operation of ventilation system
- Proper stowage of passengers' carry on items during critical phases of flight
- Seat backs must be upright for take-off and landing
- Mobile phones and electronic devices must be off at all times

TAKE – OFF SAFETY BRIEF

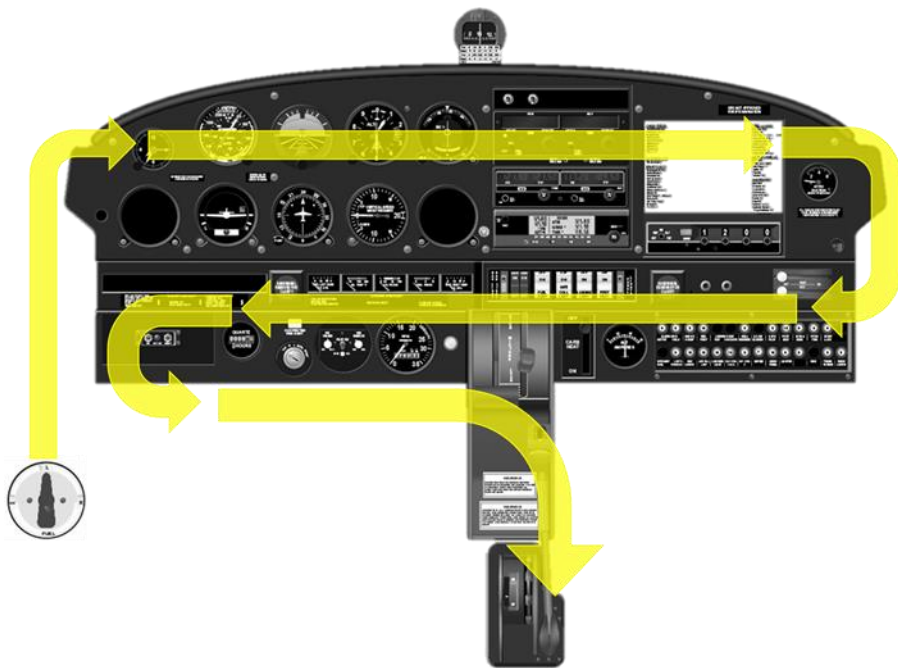
- If there is an engine failure, fire or abnormality whilst on the runway I will close the throttle and brake as required
- If there is an engine failure or major abnormality shortly after take-off with sufficient runway or overrun remaining, I will lower the nose, select full flap, land and brake as required
- If the engine fails with insufficient runway or overrun, I will lower the nose, maintain (...) knots (best glide speed), select a suitable field 30 degrees either side of the nose, extend flaps as required and land.
- I will only turn back to the runway if I am at 1000 feet AGL or on the downwind leg

DEPARTURE AND APPROACH BRIEF

- Charts
- Terrain
- Weather
- Operational considerations
- Any additional items you deem are threats

STANDARD FLOW PROCEDURE

Below is an illustration of the standardised flow employed for *do and check* operations.



Abnormal and emergency procedures are conducted as a *check and do* system.

SAMPLE PASSENGER BRIEF

“Welcome aboard your flight, my name is _____ your pilot.
Today you’ll be flying in a _____.
Our aeroplane has _____ doors. You can close the door by _____.
If you need to open the door, such as in the unlikely event of an emergency, you can open the door by _____. To adjust your seat, there will be a lever underneath the seat.
Each seat in the aeroplane is equipped with an adjustable seatbelt. Fasten your seatbelt by inserting the clasp into the buckle. Pull the shoulder harness over your shoulder and clip it on to the clasp. You can adjust the seatbelt at any time by pulling the strap. You can undo your seatbelt by lifting the flap. Please ensure that you wear your seatbelt throughout the flight. Please ensure that all bags or loose items are either placed on the rear seat or in the baggage compartment and secured.
You can adjust the VENTILATION OUTLETS AND CONTROLS by _____.
Please do not touch any part of the dashboard or controls and please keep your feet away from the pedals.

Please note that smoking on board the aeroplane is not permitted at any time.
In the unlikely event of an emergency, please exit the aeroplane and leave any luggage behind. We will meet at the rear of the aeroplane.”

- Where applicable - show use
- Lift Vest
- Lift Raft
- ELT
- Oxygen

“Our destination for today’s flight is _____ and our Estimated Time of Arrival is _____. The weather for our flight today is expected to be _____.
Please sit back, relax and enjoy your flight.”