



## PA-34-200 NORMAL PROCEDURES

BEFORE START	
Preflight Inspection	COMPLETE
Passenger Briefing	COMPLETE
Fuel Selectors	ON
Cowl Flaps	OPEN
Alternate Air	OFF
Circuit Breakers	IN
Avionics Master Switch	OFF
STARTING ENGINES	
Mixtures	IDLE CUTOFF
Propellers	FULL FORWARD
Throttles	1/2 INCH
Brakes	SET
Master Switch & Beacon Light (Fin Only)	ON
Magnetos	ON
Fuel Pump	ON
Start Switches (one at a time)	ENGAGE
Mixture	<i>Move to rich position until a fuel flow is indicated and stabilized then move to idle cut-off.</i>
Mixture	ADVANCE AS ENGINE STARTS
Throttles	800 – 1000 RPM
Fuel Pumps	OFF
Alternators	ON
AFTER START	
Gyro/Oil Pressure	SET & CHECK
Mixtures	LEAN
NAV / Taxi Lights	AS REQUIRED
Master, Avionics and Radios	ON
ATIS	LISTEN AND RECORD
BEFORE TAKEOFF	
Flight Controls	FREE & CORRECT
Flight/Engine Instruments	SET & CHECK
Mixtures	FULL RICH
Throttles	1500 RPM
Propellers	CYCLE 500 RPM MAX DROP
Throttles	2000
Propeller Controls	GOVERNOR CHECK
Magneto Check	MAX DROP 175 MAX DIFF 50
Gyro Suction	4.8 MIN – 5.2 MAX
Throttles	800 – 1000 RPM
Fuel Selector Pumps	ON
Flight Instruments	SET

Elevator & Rudder Trim	SET
Flaps	AS REQUIRED
Seats & Seat Belts	SECURE
Doors & Windows	LOCKED & LATCHED
Takeoff/Emergency Briefing	COMPLETE
BEFORE LANDING	
GAS Fuel Selectors	ON
UNDERCARRIAGE Landing Gear	DOWN (3 GREEN)
MIXTURE	FULL
PROPELLERS	FULL FORWARD
Cowl Flaps	AS REQUIRED
Heater (if on)	HEAT OFF FAN ON 2 MINUTES
AFTER LANDING	
Flaps	UP
Cowl Flaps	OPEN
Fuel Pumps	OFF
SHUTDOWN	
Avionics Master Switch	OFF
Mixtures	IDLE CUT-OFF
Lights	OFF
Master Switch	OFF
Alternators	OFF
Magnetos	OFF
V-SPEEDS	
V <sub>R</sub>	80-85 MPH (70-74 KIAS)
V <sub>X</sub>	90 MPH (78 KIAS)
V <sub>Y</sub>	105 MPH (91 KIAS)
V <sub>A</sub> (3000 lbs)	123 MPH (115 KIAS)
V <sub>A</sub> (Full Gross)	146 MPH (127 KIAS)
V <sub>S</sub>	76 MPH (66 KIAS)
V <sub>SO</sub>	69 MPH (60 KIAS)
V <sub>FE10</sub> (Flaps 10)	160 MPH (139 KIAS)
V <sub>FE25</sub> (Flaps 25)	140 MPH (122 KIAS)
V <sub>FE40</sub> (Flaps 40)	125 MPH (109 KIAS)
V <sub>LO</sub>	125 MPH (109 KIAS)
V <sub>LE</sub>	150 MPH (130 KIAS)
V <sub>NO</sub>	190 MPH (165 KIAS)
V <sub>NE</sub>	217 MPH (189 KIAS)
V <sub>XSE</sub>	90 MPH (78 KIAS)
V <sub>YSE</sub>	105 MPH (91 KIAS)
V <sub>MC</sub>	80 MPH (70 KIAS)
Max Demonstrated X-Wind	15 MPH (13 KNOTS)

*Before using this checklist, the pilot shall become familiar with the POH/AFM (Pilot Operating Handbook/Aircraft Flight Manual) and thoroughly understand the required procedures for aircraft operation.*

# PA-34-200 EMERGENCY PROCEDURES

ENGINE FAILURE ON TAKEOFF	
Airspeed (blue arc)	<b>105 MPH (91 KIAS)</b>
Gear	<b>UP</b>
Flaps	<b>UP</b>
Inoperative Engine (dead foot/dead engine)	<b>IDENTIFY</b>
Inoperative Engine (reduce throttle)	<b>VERIFY</b>
Inoperative Engine	<b>FEATHER</b>
ENGINE FAILURE IN FLIGHT	
Airspeed (blue arc)	<b>MIN 90 MPH (78 KIAS)</b>
Mixtures	<b>FULL RICH</b>
Propellers	<b>FULL FORWARD</b>
Throttles	<b>FULL FORWARD</b>
Gear	<b>UP</b>
Flaps	<b>UP</b>
Fuel Pumps	<b>ON</b>
Inoperative Engine (dead foot/dead engine)	<b>IDENTIFY</b>
Inoperative Engine (reduce throttle)	<b>VERIFY</b>
Inoperative Engine	<b>FIX or FEATHER</b>
FIX INOPERATIVE ENGINE	
Fuel Selector	<b>CROSSFEED</b>
Alternate Air	<b>ON</b>
Fuel Pump	<b>ON</b>
FEATHER INOPERATIVE ENGINE (ABV 90 MPH)	
Propeller (Inoperative Engine)	<b>FEATHER</b>
Mixture (Inoperative Engine)	<b>IDLE CUTOFF</b>
Roll	<b>5° BANK TOWARD OPERATIVE ENGINE</b>
Fuel Pump (Inoperative Engine)	<b>OFF</b>
Magnetos (Inoperative Engine)	<b>OFF</b>
Cowl Flap (Inoperative Engine)	<b>CLOSED</b>
Cowl Flap (Operative Engine)	<b>OPEN</b>
Alternator (Inoperative Engine)	<b>OFF</b>
Electrical Load	<b>REDUCE</b>
Fuel Selector (Inoperative Engine)	<b>OFF</b>
Fuel Pump (Inoperative Engine)	<b>OFF</b>
Engine Instruments	<b>MONITOR</b>
UNFEATHERING PROCEDURE	
Fuel Selector (Inoperative Engine)	<b>ON</b>
Fuel Pump (Inoperative Engine)	<b>OFF</b>
Throttle (Inoperative Engine)	<b>¼ INCH</b>
Propeller (Inoperative Engine)	<b>CRUISE RPM POS</b>
Mixture (Inoperative Engine)	<b>RICH</b>
Magnetos (Inoperative Engine)	<b>ON</b>
Starter Switch (Inoperative Engine)	<b>ENGAGE</b>
WHEN ENGINE STARTS	
Throttle	(Until Oil Temp in Green) <b>15-20"</b>
Alternator	<b>ON</b>
Fuel Pump (Inoperative Engine)	<b>ON</b>
WHEN ENGINE FAILS TO START	
Fuel Pump (Inoperative Engine)	<b>3 SEC</b>
Starting Procedure	<b>REPEAT</b>

ENGINE FIRE ON TAKEOFF	
Fuel Selector Valve	<b>OFF</b>
Throttle	<b>CLOSE</b>
Propellers	<b>FEATHER</b>
Mixture	<b>IDLE CUTOFF</b>
Heater / Defrost Controls	<b>OFF</b>
Land	<b>IMMEDIATELY</b>
EMERGENCY DESCENT	
Throttles	<b>CLOSED</b>
Props	<b>FORWARD</b>
Mixtures	<b>ENRICH</b>
Gear	<b>EXTEND</b>
Airspeed	<b>150 MPH (130 KIAS)</b>
MANUAL GEAR DESCENT	
Circuit Breaker	<b>CHECK</b>
Master Switch	<b>ON</b>
Alternators	<b>CHECK</b>
Navigator Lights	<b>OFF (DAYTIME)</b>
Airspeed	<b>NOT TO EXCEED 100 MPH (87 KIAS)</b>
Landing Gear Selector Switch	<b>DOWN</b>
Emergency Extension Knob	<b>PULL OUT</b>
Gear Lights	<b>3 GREEN</b>
Landing Gear Selector Switch	<b>DOWN</b>
ELECTRICAL FAILURE ("ALT" LIGHT)	
Electrical Load	<b>REDUCE</b>
Ammeters	<b>OBSERVE LOAD</b>
BOTH AMMETERS READ ZERO	
Reduce Electrical Load to Minimum	
Alternator Switches	<b>BOTH OFF</b>
Alternator Switch	<b>ON (one at a time)</b>
<i>If an ammeter shows electrical load, do not exceed 50 amperes. If both show equal output resume operation.</i>	
ONE AMMETER READS ZERO	
Alternator Switch	<b>OFF THEN ON</b>
IF OUTPUT IS NOT RESTORED	
ALT Field Circuit Breaker (5 AMP)	<b>RESET ONCE</b>
<i>Continue flight and take corrective action before further flight.</i>	
USING OPERATING ENGINE FUEL TANK	
Fuel Selector (Operative Engine)	<b>ON</b>
Fuel Selector (Inoperative Engine)	<b>OFF</b>
USING INOPERATIVE ENGINE FUEL TANK	
Fuel Selector (Operative Engine)	<b>X-FEED</b>
Fuel Selector (Inoperative Engine)	<b>OFF</b>
LANDING	
Fuel Selector (Operative Engine)	<b>ON</b>
Fuel Selector (Inoperative Engine)	<b>OFF</b>