

POWER LOSS IMMEDIATELY AFTER TAKEOFF / NO RESTART

MAINTAIN AIRCRAFT CONTROL

BEST GLIDE - 76 KIAS (87 MPH) (Full Gross)
 FUEL SELECTOR - OFF
 MIXTURE - FULL LEAN / IDLE CUTOFF
 FUEL PUMP - OFF
 FLAPS - DOWN
 MASTER & MAGS - OFF

UNLATCH DOOR
 PROTECT BODY

POWER LOSS IN FLIGHT

BEST GLIDE - 76 KIAS (87 MPH) (Full Gross)
 CARB HEAT - ON (Also Supplies Alternate Air)
 NOTE WIND DIRECTION & VELOCITY
 PICK LANDING SITE
 MIXTURE - FULL RICH
 FUEL SELECTOR - CHECK / SWITCH (Note Gauges)
 FUEL PUMP - ON
 FUEL PRIMER - LOCKED (Try Re-Priming)
 MAGNETOS - CHECK ALL
 MASTER - ON

IF NO RESTART & TIME PERMITS

MAINTAIN BEST GLIDE
 SQUAWK 7700
 DECLARE EMERGENCY (TWR, APP, Unicom, 121.5)
 ELT - ON
 MIXTURE - FULL LEAN / IDLE CUTOFF
 FUEL SELECTOR - OFF
 SEATBELTS / HARNESS
 FLAPS - AS NEEDED (Full Flaps When Field Assured)
 MASTER & MAGS - OFF
 AIRSPEED APPROX. 63 KIAS (72 MPH)
 UNLATCH DOOR
 PROTECT BODY

ELECTRICAL FIRE IN FLIGHT

ALL ELECTRICAL DEVICES + MASTER - OFF (Mags - On)
 VENTS, CABIN HEAT & AIR - OFF
 IF FIRE OUT - MASTER ON ONLY IF CRITICAL (Vents - Open)
 THEN ONE ESSENTIAL ELECTRICAL DEVICE AT A TIME
 RESET CIRCUIT BREAKERS ONLY IF CRITICAL

ENGINE FIRE IN FLIGHT

THROTTLE - CLOSED
 MIXTURE - FULL LEAN / IDLE CUTOFF
 FUEL SELECTOR - OFF
 MASTER - OFF
 CABIN HEAT & AIR - OFF (Vents - Open)
 INCREASE AIRSPEED TO EXTINGUISH - LAND ASAP

ENGINE FIRE DURING START

CONTINUE CRANKING ENGINE
 IF START - RUN A FEW SECONDS - SHUTDOWN - INSPECT
 IF NO START - IDLE MIXTURE CUTOFF & FUEL SELECTOR OFF
 THROTTLE - FULL OPEN
 CONTINUE CRANKING ENGINE A FEW SECONDS
 MASTER & MAGS - OFF
 EVACUATE / FIRE EXTINGUISHER

ICING

PITOT HEAT - ON
 CARB HEAT - ON
 CABIN HEAT & DEFROST - MAXIMUM
 STRONGLY CONSIDER 180° TURN
 ATTAIN HIGHER OR LOWER ALTITUDE
 INCREASE ENGINE SPEED
 FLAPS - NOT RECOMMENDED FOR LANDING
 LAND FASTER - 70-80 KIAS (81-92 MPH)

OTHER

ALTERNATOR FAILURE: Reduce Electrical Load / Verify C.B. In. Attempt To Reset Overvoltage Relay - Turn ALT Switch Off For One Second, Then On.

If Ammeter Continues To Indicate Zero Output, Or If Alternator Will Not Remain Reset, Turn Off ALT Switch, Maintain Minimum Electrical Load and Land A.S.A.P. (BATTERY ONLY)

RADIO OUT: Check Circuit Breakers & VOLUME
 Recycle Alternator Switch
 If IFR & Still Out, Set XPDR To 7600.
 (Suggested For VFR If In B, C, D Airspace.)

UNICOM: 122.7 - 122.8 - 122.95 - 123.0 - 123.05
 MULTICOM: 122.9 (CTAF) - 122.75 - 122.85 (Air To Air)
 F.S.S.: 122.000-122.675. Most Common-122.2
 EMERGENCY: 121.5

TOWER SIGNALS	ON GROUND	IN FLIGHT
Steady Green	Cleared For Takeoff	Cleared To Land
Flashing Green	Cleared To Taxi	Return For Landing
Steady Red	Stop	Yield & Continue Circling
Flashing Red	Taxi Clear of Landing Area	Airport Unsafe - Do Not Land
Flashing White	Return To Starting Point	N/A
Alternating Red & Green	Use Extreme Caution	Use Extreme Caution

* Every Plane Has A Different Empty Weight And Useful Load.
 Piper Archer II PA-28-181 (Lycoming: O-360-A4M or A4A, 180 HP)

* Empty Weight: LBS (Specific Plane Weight)
 * Max. Useful Load: LBS (Including Fuel @ 6 lbs/gal)
 Max. Baggage Area: 200 LBS (Included In Useful Load)
 Max. T.O. Weight: 2550 LBS

Fuel Type: 100LL (Blue) / 100 (Green)
 Usable Fuel: 48 Gallons
 Oil Capacity: 8 Quarts (POH Minimum 2. Recommend 6)
 Electrical: 12-14 VOLT / 60 AMP
 Tire Pressure: Nose - 18 PSI / Main - 24 PSI

INITIAL	START	RUN-UP	TAKEOFF	DESCENT	AFTER LANDING
Weather & Den. Alt. Weight & Balance Performance Req. Flight Plan - File Papers - A.R.O.W Flaps - Extend Master - On Pitot Heat - Test Stall Indicator - Test Lights - Int. / Ext. Fuel Gauges - True Master - Off Pitot / Static - Drain / Close	Seat Track/Back - Lock Avionics - Off Autopilot - Off AC - Off Carb Heat - Off Throttle - Slight Brakes Prop - Clear Master - On Beacon - On Fuel Pump - On Mixture - Full Rich Prime - As Req. Mags - Start Oil Pressure Fuel Pump - Off Fuel Pressure Lights - As Req. Mixture - As Req.	Brakes Fuel - Proper Tank Trim - Takeoff Flight Controls Annunciator Lights Instruments Mixture - Best Power Primer - In & Lock 2000 RPM Mags-Test (R-L-Both) Carb Heat - Test Vacuum Amps / Volts Fuel Pressure Oil Pressure Oil Temperature Idle - Check Closed Throttle Friction	Full Throttle 2325 RPM (Min) Oil Pressure Rotate - * 59 (68) Vy - 76 (87) Flaps - Up	Mixture - Richen Carb Heat - As Req. Fuel - Proper Tank ATIS / AWOS Altimeter Instruments	Flaps - Up Carb Heat - Off Fuel Pump - Off Strobes - Off Landing Light - Off Taxi Light - As Req. Pitot Heat - Off Mixture - As Req. Trim - Takeoff XPDR - Alt + Sqwk
EXTERIOR SUMMARY Fuel Quantity Fuel Quality Caps/Drains/Vents Engine / Oil / Belt Prop / Air Intake Exhaust System Surfaces & Controls Pitot Static Ports Gear / Tires / Brakes Antennas Ties/Chocks/Towbar Baggage Door Final Walk Around	PRE-TAXI / TAXI Seat Belts / Harness Heat / Vent / Defrost Avionics - On ATIS / AWOS Altimeter XPDR - Alt + Sqwk ADS-B - On Radio - Test Taxi Light - As Req. Brakes - Test Attitude Indic. - Test Turn Coord. - Test H.I. To Compass - Test	PRE-TAKEOFF Flaps - 0°-25° Mixture - Best Power Carb Heat - Off Or As Req. Fuel Pump - On XPDR - Alt + Sqwk Heading Bug Pitot Heat - As Req. AC - Off Doors / Windows Landing Light - On Strobes - On Time - Note Brakes - Release Abort Plan - Ready!	CLIMB 76-87 (87-100) Power Mixture Fuel Pump - Off Instruments Taxi / Land Light - Off Flight Plan - Open	PRE-LANDING Brakes - Pedal Test Landing Light - On Autopilot - Off AC - Off Seat Belts / Harness Mixture - Best Power Carb Heat - As Req. Fuel Pump - On Fuel - Proper Tank Flaps - As Req.	SECURING ELT - Verify Silent Avionics - Off AC - Off Mixture - Full Lean Mags - Off Master - Off Lights - Off Hobbs / Tach Time Secure Yoke Chocks Tie Downs Pitot Cover Baggage Door Cabin Door
INTERIOR Flaps - Up Passenger-Load/Brief Hobbs / Tach Time Fuel - Proper Tank Circuit Breakers Alternate Static ELT - Armed			CRUISE Power Mixture Instruments Fuel - Proper Tank (Fuel Pump On If Switch)	LANDING Flaps - 40° Or As Req * 66 (76) G.U.M.P.F.S. GO-AROUND Power - Full Carb Heat - Off Positive Rate Climb Flaps - Retract Slowly	Close Flight Plan * Adjust Speed As Needed For Conditions. Check Your POH For Notes / Cautions Plus Manufacturer For Revisions.

Vr • Rotation Speed - 59 (68)	Vs ₀ • Stall with Flaps - 49 (66)	Va • Max Abrupt Ctl (1634 lbs) - 89 (102)	Vfe • Flaps Extended - 102 (112)
Vx • Best Angle Climb - 64 (74)	Vs • Stall w/o Flaps - 55 (63)	Va • Max Abrupt (Full Gross) - 113 (140)	X Wind • Max Demo'd - 17 (20)
Vy • Best Rate Climb - 76 (87)	Best Glide (1634 lbs) - 61 (70)	Vno • Max Structural Cruise - 125 (144)	
	Best Glide (Full Gross) - 76 (87)	Vne • Never Exceed - 154 (172)	

	KNOTS (MPH)	FLAPS °	- NOTES -
DEPARTURE			
Rotation *	59 (68)	0	Short Field: 25° Flaps. Rotate * 41-49 KIAS (47-56) Then 45-54 KIAS (52-62).
Best Angle Climb	64 (74)	0	Soft Field: 25° Flaps. After Breaking Ground Accelerate To * 52 (60), When Flaps Up, 76 KIAS (87)
Best Rate Climb	76 (87)	0	
CRUISE (TAS 5,000')			
Economy	95 (109)	0	2280 RPM - 7.8 GPH - 55%
Normal	109 (125)	0	2430 RPM - 9.0 GPH - 65%
Maximum	119 (137)	0	2580 RPM - 10.5 GPH - 75%
ARRIVAL			
Approach	75 (86)	10-25	1700 RPM (Initially)
Short Final *	66 (76)	40	Idle-1200 RPM

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Specs Are Approximate Because Of Environment & Plane Model / Year Variables. Specs Are In: 185, KIAS, Sea Level, Standard Day, Normal Category, Max Gross Wt., No Wind, *Best Power, Wheel Pants, New Engine, () = MPH.

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