

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 Gear Lever - Down Master - On Gear Lights - Green Pitot Heat - Test Stall Indicator - Test Lights - Int. / Ext. Fuel Gauges - True Master - Off	Seat Track/Back-Lock Avionics - Off Autopilot - Off AC - Off Prop - High RPM Throttle - Slight Brakes Prop - Clear Master - On Beacon - On Fuel Pump - On Mixture - Rich/Prime Mixture - Lean Mags - Start Mixture - Full Rich Oil Pressure Fuel Pump - Off Fuel Pressure Lights - As Req. Mixture - As Req.	Brakes Fuel - Proper Tank Trim - Takeoff Flight Controls Instruments Annunciator Lights Alter. Air-Test/Close Mixture - Best Power 2000 RPM Mags-Test (R-L-Both) Prop - Cycle Vacuum Amps / Volts Fuel Pressure Oil Pressure Oil Temperature Idle - Check Closed Friction Lock	Full Throttle 2700 RPM (Max) Manifold Pressure Oil Pressure Rotate * 56 (65) Vy - 87 (100) Gear - Up Flaps - Up	Throttle - MP As Req. Mixture - Richen Fuel - Proper Tank ATIS / AWOS Altimeter Instruments	Flaps - Up Fuel Pump - Off Strobes - Off Land Light - As Req. Mixture - As Req. Pitot Heat - Off Mixture - As Req. Trim - Takeoff XPDR - Alt + Sqwk
EXTERIOR SUMMARY <small>After Thorough Geographical Check</small>	PRE-TAXI / TAXI	PRE-TAKEOFF	CLIMB	PRE-LANDING	SECURING
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	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	Flaps - 0°- 25° Prop - High RPM Mixture - Best Power Fuel Pump - On Gear Override -As Req Pitot Heat -As Req. XPDR - Alt + Sqwk Heading Bug AC - Off Doors / Windows Landing Light - On Strobes - On Time - Note Brakes - Release <i>Abort Plan - Ready!</i>	96 (110) Throttle - 25" MP Prop - 2500 RPM Mixture - As Req. Fuel Pump - Off Instruments Taxi/Land Light-Off Flight Plan - Open	Brakes - Pedal Test Landing Light - On Autopilot - Off AC - Off Seat Belts / Harness Mixture - Best Power Fuel Pump - On Fuel - Proper Tank Gear Override -As Req Gear Lights - Green Flaps - As Req.	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			CRUISE	LANDING	Close Flight Plan
Flaps - Up Passenger-Load/Brief Hobbs / Tach Time Fuel - Proper Tank Circuit Breakers Alternate Static ELT - Armed			Throttle Prop Mixture Instruments Fuel - Proper Tank	Gear Lights - Green Flaps - 40° Or As Req Prop - High RPM * 68 (78) G. U. M. P. F. S. GO-AROUND Power - Full Flaps - Approach Gear Override - As Req Positive Rate Climb Gear - Up Flaps - Up	* Adjust Speed As Needed For Conditions. Check Your POH For Notes / Cautions Plus Manufacturer For Revisions.

XWind • Max Demo'd - 17 (20)	V _{S0} • Stall With Flaps - 56 (64)	V _a • Max Abrupt (2100 lbs) - 101 (116)	V _{fe} • Full Flaps - 109 (125)
V _r • Rotation Speed - 56 (65)	V _s • Stall w/o Flaps - 62 (71)	V _a • Max Abrupt (Full Gross) - 114 (131)	V _{lo} • Max Gear Operate - 130 (150)
V _x • Best Angle Climb - 83 (96)	Best Glide (2100 lbs) - 81 (93)	V _{no} • Max Structural Cruise - 148 (170)	V _{le} • Max Gear Extended - 130 (150)
V _y • Best Rate Climb - 87 (100)	Best Glide (Full Gross) - 91 (105)	V _{ne} • Never Exceed - 186 (214)	V _{lr} • Max Gear Retract - 109 (125)

	KNOTS (MPH)	FLAPS °	- NOTES -
DEPARTURE			
Rotation *	56 (65)	0	V _x & V _y Are <i>Gear Up</i> Speeds.
Best Angle Climb	83 (96)	0	Short Field: 25° Flaps. Rotate * 54 (62), Then 74 (85)
Best Rate Climb	87 (100)	0	Soft Field: 25° Flaps. Rotate * 52 (60)
CRUISE (TAS - 5,000')			
Economy	120 (138)	0	21.7" MP - 2100 RPM - 8.2 GPH - 55%
Normal	131 (151)	0	21.7" MP - 2400 RPM - 9.2 GPH - 65%
Maximum	141 (162)	0	Full Throttle - 2400 RPM - 10.2 GPH - 75%
ARRIVAL			
Approach	78 (90)	10-25	17" MP (Initially)
Short Final *	68 (78)	40	Prop - High RPM

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

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(IF UNABLE TO ABORT TAKEOFF)

POWER LOSS IMMEDIATELY AFTER TAKEOFF / NO RESTART

MAINTAIN AIRCRAFT CONTROL

BEST GLIDE – 91 KIAS (105 MPH) (Full Gross Weight)
 FUEL SELECTOR – OFF
 MIXTURE – FULL LEAN / IDLE CUTOFF
 FLAPS – DOWN
 GEAR – AS REQUIRED
 MASTER & MAGS – OFF

UNLATCH DOOR
 PROTECT BODY

POWER LOSS IN FLIGHT

BEST GLIDE – 91 KIAS (105 MPH) (Full Gross Weight)
If Needed Manual Override Gear Engaged Above 100 KIAS (115)
 NOTE WIND DIRECTION & VELOCITY
 PICK LANDING SITE
 MIXTURE – FULL RICH
 FUEL SELECTOR – CHECK / SWITCH (Note Gauges)
 FUEL PUMP – ON
 ALTERNATE AIR – ON
 MAGNETOS – CHECK ALL
 MASTER – ON

IF NO RESTART & TIME PERMITS

MAINTAIN BEST GLIDE
 PROP – LOW RPM (Full Aft)
 SQUAWK 7700
 DECLARE EMERGENCY (TWR, APP, Unicom, 121.5)
 ELT – ON
 MIXTURE – FULL LEAN / IDLE CUTOFF
 FUEL SELECTOR – OFF
 SEATBELTS / HARNESS
 GEAR-DOWN (Up If Very Rough/Soft Terrain. Engage Gear Override > 100 Knots)
 FLAPS – AS NEEDED (Full Flaps When Field Assured)
 MASTER & MAGS – OFF
 UNLATCH DOOR
 PROTECT BODY

ELECTRICAL FIRE IN FLIGHT

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

ENGINE FIRE IN FLIGHT

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 / CRANK ENGINE FEW SECONDS
 MASTER & MAGS – OFF
 EVACUATE / FIRE EXTINGUISHER

ICING

PITOT HEAT – ON
 DEICING EQUIPMENT – ON
 CABIN HEAT & DEFROST – MAXIMUM
 STRONGLY CONSIDER 180° TURN
 ATTAIN HIGHER OR LOWER ALTITUDE
 INCREASE ENGINE & PROP SPEED
 FLAPS – NOT RECOMMENDED FOR LANDING
 LAND FASTER AS NEEDED

MANUAL GEAR EXTENSION

REDUCE AIRSPEED BELOW 87 KIAS (100 MPH)
 LANDING GEAR LEVER – DOWN POSITION
 EMERGENCY GEAR LEVER - EMERGENCY DOWN
 YAW AIRPLANE IF NECESSARY TO HELP LOWER GEAR

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 Arrow II, PA-28R-200 (Lycoming: IO-360-C1C, 200 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: 2650 LBS

Fuel Type: 100 LL (Blue) / 100/130 (Green)
 Usable Fuel: 48 Gallons
 Oil Capacity: 8 Quarts (POH-Minimum 2. Suggest 6)
 Electrical: 12-14 VOLT / 60 AMP
 Tire Pressure: Nose - 30 PSI / Main - 27 PSI