Cessna 172P/N Skyhawk

Quick reference only. Refer to POH for Complete Procedures

PREFLIGHT	
CERT/DOC (ARROW)	ONBOARD
Mx LOG	CHECK
TACH/HOBBS	RECORD
PARKING BRAKE	AS REQUIRED
CONTROL LOCK	REMOVE
MAGNETOS	OFF
MIXTURE	IDLE CUT-OFF
CIRCUIT BREAKERS	CHECK IN
BEACON	ON
ALT STATIC AIR	CHECK OFF
MASTER SWITCH	ON
FLAPS	EXTEND
FUEL QTY INDICATO	CHECK
LOW VOLT LIGHT	CHECK ON
LIGHTS/PITOT HEAT	CHECK
MASTER SWITCH	OFF
EXTERIOR	ɜE EXT CHECKLIST

BEFORE STARTING ENGINES	
CHOCKS	REMOVED
BRAKES	SET
AVIONICS MASTER	OFF
PAX BRIEF	S.A.F.E.T.Y.
SEATS/BELTS	UP AND SECURE
ELEC EXCEPT BCN	OFF
CARB HEAT	OFF
FUEL SELECTOR	BOTH

ENGINE START	
MIXTURE	FULL RICH
THROTTLE	CRACK OPEN
PRIMER	AS REQUIRED
BATT MASTER & ALT	ON
BEACON	ON
NAV LGTS (IF NIGHT)	ON
AREA	CLEAR
MAGNETOS	START
THROTTLE	800-1000
OIL PRESSURE	GREEN
AVIONICS MASTER	ON
FLAPS	RETRACT

KLAF FREQUENCIES	
ATIS	127.75
TOWER	119.60
GROUND	121.90
FSS	122.35
GRISSOM APCH	123.85
PURDUE AV UNICOM	122.95

PRE-TAXI	
MIXTURE	LEAN 1" FOR TAXI
RADIOS	SET GND/CTAF
TRANSPONDER	ALT, 1200
CLOCK	RUNNING
AIRSPEED	ZERO
ATTITUDE INDICATOR	ERECT
ATIS/AWOS	OBTAIN
ALTIMETER	SET
DIR GYRO	SET TO COMPASS
VSI	NOTE POSITION
EXTERIOR LIGHTS	BCN, TAXI
CONTACT GROUND IF TOWERED, CHECK BRAKES, DG, TURN COORD ON	

GROUND CHECK	
BRAKES	SET
MIXTURE	FULL RICH
THROTTLE	1700 RPM
ENGINE INSTRUMENT	CHECK GREEN
SUCTION GAUGE	CHECK GREEN
ALTERNATOR	TEST
MAG CHECK	MAX DROP 125 MAX DIFF. 50 RPM
CARB HEAT	ON, RPM DROP
THROTTLE	IDLE CHECK
CARB HEAT	OFF
THROTTLE	800-1000

BEFORE TAKEOFF	
RADIOS	SET TO TWR/CTAF
FLIGHT PLAN	SET
DIR GYRO	SET TO COMPASS
MIXTURE	CHECK FULL RICH
ENGINE INSTRUMENT	CHECK
CARB HEAT	OFF
CIRCUIT BREAKERS	CHECK IN
SEATS/SEAT BELT	UP & SECURE
DOORS	ↄLOSED & LOCKED
FLAPS	SET
TRIM	SET FOR T.O.
CONTROLS	FREE & CORRECT
DEPARTURE BRIEF	COMPLETE
PARK BRAKE	OFF
WINDOWS	AS REQUIRED
EXTERIOR LIGHTS	ALL ON

PURDUE AVIATION

TAKEOFF	
DIR GYRO	CHECK RWY HDG
THROTTLE	FULL OPEN
ENGINE INST	GREEN
ROTATE	55 KIAS
Vy	76 172P, 73 172N

ENROUTE CLIMB	
AIRSPEED	75-85 KIAS
MIXTURE	LEAN ABOVE 3K

CRUISE	
POWER	2300 RPM
TRIM	AS REQUIRED
MIXTURE	EAN FOR CRUISE

DESCENT/APPROACH	
ATIS/AWOS	OBTAIN
TOWER/CTAF	ↄNTACT AT 10 NM
EXTERIOR LIGHTS	ALL ON
APCH BRIEF	CONDUCT
SEATS/SEAT BELTS	UP AND SECURE
FUEL SELECTOR	BOTH
MIXTURE	FULL RICH
CARB HEAT	ↄN ABEAM THE #s

AFTER LANDING	
PITOT HEAT	OFF
LIGHTS TO JUST BCN AND TAXI	
CARB HEAT	OFF
MIXTURE	LEAN 1" FOR TAXI
FLAPS	RETRACT

SHUTDOWN	
PARKING BRAKE	ON
TRANSPONDER	ALT, 1200
AVIONICS MASTER	OFF
ELEC EXCEPT BCN	OFF
THROTTLE	FULL IDLE
MAGNETOS	GROUND CHECK
THROTTLE	1200 RPM 10 SEC
MIXTURE	IDLE CUT-OFF
MAGNETOS	OFF
BATT MASTER & ALT	OFF
TACH/HOBBS	RECORD
CONTROL LOCK	IF NEEDED
LANDING GEAR	CHOCK
PARKING BRAKE	OFF
FLIGHT PLAN	CLOSE

UPDATED 04/05/2023

EMERGENCY PROCEDURES

QUICK REFERENCE ONLY. Refer to POH section 3 for complete procedures

ENGINE FIRE DURING START	
STARTER	CONTINUE CRANKING
IF ENGINE FAILS TO START:	
THROTTLE	
MIXTURE	IDLE CUT-OFF
MASTER SWITCH	OFF
MAGNETO SWITCH	OFF
FUEL SELECTOR	OFF

ENGINE FAILURE IN FLIGHT	
AIRSPEED	65 KIAS
BEST PLACE TO LAND	AVIGATE, LAND INTO WIND
CHECKLIST:	
CARB HEAT	ON
FUEL SELECTOR	BOTH
MIXTURE	FULL RICH
MAGNETO SWITCH	OTH, START IF PROP STOP
PRIMER	IN & LOCKED
If engine does not restart:	
FORCED LANDING	
DECLARE EMERGENCY	121.5, SQUAWK 7700
prep to EVACUATE:	
MIXTURE	IDLE CUT-OFF
THROTTLE	IDLE
FUEL SELECTOR	OFF
MAGNETO SWITCH	OFF
FLAPS	AS REQUIRED
MASTER SWITCH	OFF
DOORS	OPEN BEFORE LANDING

LOW VOLTAGE LIGHT ILLUMINATES (ALT FAIL)	
AVIONICS MASTER	OFF
ALTERNATOR CB	CHECK IN
MASTER SWITCH	OFF
MASTER SWITCH	ON
LOW VOLT LIGHT	CHECK OFF
AVIONICS MASTER	ON
If low voltage light illuminates again:	
ALTERNATOR	OFF
RADIO/ELEC	ALL NONESSENTIAL OFF
LAND AS SOON AS PRACTICAL	

ENGINE FIRE IN FLIGHT	
MIXTURE	CUTOFF
FUEL SELECTOR	OFF
MASTER SWITCH	OFF
CABIN HEAT AND AIR	FF EXCEPT OVERHEADS
IF FIRE PERSISTS	EMERGENCY DESCENT
EXECUTE FORCED LANDING	

ELECTRICAL FIRE IN FLIGHT	
MASTER SWITCH	OFF
AVIONICS SWITCH	OFF
ALL ELECTRICAL	OFF
VENTS/CABIN HEAT	CLOSED
FIRE EXTINGUISHER	ACTIVATE
If fire appears out, and electrical power is required:	
MASTER SWITCH	ON
CIRCUIT BREAKERS	IN (DO NOT RESET)
RADIO SWITCHES	OFF
AVIONICS SWITCH	ON
RADIO/ELEC	ON ONE AT A TIME
CABIN VENTS/HEAT	OPEN ONLY IF FIRE OUT

V-SPEEDS		172P	172N
V_G	BEST GLIDE	65	65
V_{SO}	Stall (Full Flap)	33	41
V_{S1}	Stall (Flaps UP)	44	47
V_R	Rotate	55	55
V_X	Best Angle of Climb	60	59
V_Y	Best Rate of Climb	76	73
V_A	Manuevering Speed	82-99	80-97
V_{FE1}	Flaps 0-10°	110	110
V_{FE}	Flaps 10-30°	85	85
V_{NO}	Max Normal Operatio	127	127
V_{NE}	Never Exceed	158	160
Enroute Climb		75-85	75-85
Max Demonstrated Crosswind		15	15

TRAINING PURPOSES ONLY, REFER TO POH SECTION 3 FOR MORE INFORMATION