Checklist N98825, Cessna 172P

The DFC checklist for N98825 consist of three separate folders: one for outside check, this one and one for emergency.
Please ensure having all three ready. This checklist is not an authoritative document. Full reference must be made to the individual FAA APPROVED AIRPLANE FLIGHT MANUAL / PILOT's OPERATING HANDBOOK as amended.

Speeds			KIAS
V_{NE}	Never Exceed		158
V_{NO}	Maximum Cruising Speed		127
V_{FE}	Flaps Speed 10°/ 20-30°		110 / 85
V_A	Maximum in turbulent air (2400lbs/2000lbs/1600lbs)		99 / 92 / 82
V_X	Best Angle of Climb MSL		60
V_Y	Best Climb MSL		76
V_{S0}	Stall Full Flaps		46
V_S	Stall without Flaps		51
	Best Gilde (Flaps UP)		65
V_{APP}	Approach Speed (Flaps)	20°	70
		30°	
V_{REF}	Short Final		61

General Information	
Fuel Burn Climbout	ca.46l / h
Fuel Burn Cruise	ca. 33l / h
Minimum Oil level	5 Quarts
Minimum Oil for flights exceeding 5 hours	7 Quarts
Tire Pressure Main Gear	28 PSI
Tire Pressure Front Gear	34 PSI
Empty Weight/MTOW	707 kg/1092kg

BEFORE STARTING ENGINE

1.	Passenger Briefing	COMPLETE
2.	Seats - Seat Belts - Shoulder Harnesses	ADJUST an LOCKED
3.	Alternate Static Source	OFF
4.	Mixture	RICH
5.	Throttle	1 cm open
6.	Carburetor Heat	COLD
7.	Fuel Selector	BOTH
8.	Electrical Equipment	OFF
9.	Beacon	ON
10.	Circuit Breakers	CHECK IN
11.	Avionics Power Switch	OFF
12.	Prime -- AS REQUIRED (2 to 6 strokes; none, if engine is warm)	CHECK
13.	Primer	IN AND LOCKED
14.	Brakes	TEST and SET

STARTING ENGINE

1.	Battery Master Switch	ON
2.	Ammeter	FLICKERS
3.	Low Voltage Light	ON
4.	Controlled Airports only: REQUEST STARTUP PROCEDURE	
5.	Propeller Area – left/center/right -	CLEAR, CALLOUT
6.	Ignition Switch	START (release when engine starts)
7.	Starter DISENGAGED (if starter were to remain engaged, ammeter would indicate full scale charge with running at 1000 rpm).	CHECK
8.	Oil Pressure	GREEN
9.	Throttle (1000 RPM or less)	ADJUST
10.	Alternator Master	ON
11.	Ammeter does not flicker/charges/Low VOLT OFF	CONFIRM

STARTING ENGINE (continued)

12.	Avionics Power Switch	ON
13.	Navigation Lights	ON as required
14.	Audiopanel (COM1 listen/talk, COM 2 listen)	SET
15.	2 Radios + ADL (Radio 1: Ground active, TWR/Radio STANDBY; Radio 2: 121.50 active; check Volume!)	3x ON and SET
16.	1x Altimeter/1x G5 (check with local QNH max. +/- 75ft)	SET QNH
17.	GNS 430 Setup/Database/WAAS Check	AS REQUIRED
18.	Transponder (7000)	SET MANUALLY TO STANDBY
19.	Flaps	RETRACT
20.	Parking Brake	OFF
21.	Request taxi	COPY

EMERGENCY: CARBURATOR FIRE

Continue Cranking to suck flames!

>>> IF ENGINE STARTS:

	Power For a few minutes	1700 RPM
	Engine	SHUTDOWN AND INSPECT

>>> IF ENGINE FAILS TO START:

1.	Throttle	FULL OPEN
2.	Mixture	IDLE/CUT-OFF
3.	Cranking 10s	CONTINUE
4.	Fire Extinguisher	OBTAIN
5.	Ignition Switch	OFF
6.	Master Switch	OFF
7.	Fuel Selector Valve	OFF
8.	Fire	EXTINGUISH

TAXI

WARNING: The following TAXI CHECKS shall be checked during Taxi.
For safety reasons: Memorize them and work from memory only!

1.	Taxilights	ON
2.	Brakes	CHECK
3.	Set Flight Controls	FOR WIND
4.	Magnetic Compass / G5 Heading Indicator	SHOWS TURNS
5.	Turn Coordinator	CHECK (SHOWS TURNS, BALL)
6.	G5 Attitude Indicator	CHECK & SET
7.	Airspeed Indicators and VSI	CHECK (ZERO)

RUNUP

1.	Taxi Light	OFF
2.	Parking Brake	SET
3.	Point Prop. Blast away from Planes & Property	CHECK
4.	Cellphone, Handy (incl. Passengers)	VERIFY OFF
5.	Cabin Doors and Windows	CLOSED and LOCKED
6.	Seats, Seat Belt and Shoulder Harnesses	SECURED
7.	Short Field Takeoff	NO / YES
8.	Wing Flaps	SET FOR TAKEOFF
9.	Mixture (Lean if above 3000 ft)	RICH OR AS REQ.
10.	Throttle	1000 RPM
11.	Carburetor Heat	COLD
12.	Elevator Trim	SET FOR TAKEOFF
13.	Fuel Selector Valve	BOTH
14.	Circuit Breakers	ALL IN
15.	Primer	IN AND LOCKED
16.	Fuel Indicator	CHECK
17.	Flight Instruments	CHECK and SET
18.	Flight Controls	FREE AND CORRECT
19.	Throttle	1700 RPM
20.	Engine Instruments (Oil Temp, Oil Press)	ALL GREEN
a)	Magnetos Check: RPM drop should not exceed 125 RPM on either magneto or 50 RPM differential between magnetos).	RIGHT / BOTH LEFT / BOTH
b)	Carburator Heat CHECK FOR RPM DROP	WARM
c)	Throttle fully back CHECK IDLE RPM	FULLY BACK
d)	Carburator Heat CHECK FOR RPM INCREASE	COLD
21.	Throttle	1000 RPM
22.	Throttle Friction Lock	ADJUST
23.	G5 Heading Bug	SET TO RWY HDG
24.	Radio and Avionics (121.5 in Radio 2)	FREQUENCIES SET
25.	Switch to RADIO or TWR frequency	SWITCH
26.	Departure and Emergency Briefing	DONE
27.	Wing Flaps – 0 - 10 degrees	SET

PLEASE TURN SHEET TO CONTINUE

28.	Pitot Heat	AS REQUIRED
29.	Transponder SQUAWK Code	CHECK & Mode ALT
30.	NAV Lights	AS REQUIRED
31.	Landing Light & Strobes	ON
32.	Report Ready for Departure (*Exit Point, Copy T/O Clearance)*	COPY
33.	Time	NOTE
34.	Parking Break	RELEASE
35.	Pilot Flying	I HAVE CONTROL

NORMAL TAKEOFF

1.	Throttle	CAREFULLY FULL OPEN
2.	Engine Gauges + RPM	ALL GREEN
3.	Airspeed Indicators	ALIVE
4.	Rotate	55 KIAS
5.	Climb Speed	70 – 80 KIAS
6.	Wing Flaps	RETRACT > 500 ft AGL

SHORT FIELD TAKEOFF

1.	Brakes	APPLY
2.	Wing Flaps	10 DEGREES
3.	Throttle	CAREFULLY FULL OPEN
4.	Mixture	MAX. EGT
5.	Engine Gauges + RPM	ALL GREEN / CHECK
6.	Brakes	RELEASE
7.	Airspeed Indicators	ALIVE
8.	Elevator Control / Rotate 54 KIAS	SLIGHTLY TAIL LOW
9.	Climb Speed (until all obstacles are cleared)	56 KIAS
10.	After reaching 60 KIAS: Wing Flpas	RETRACT slowly

EMERGENCY: ENGINE FAILURE AFTER TAKEOFF

1.	Airspeed (FLAPS UP – FLAPS DOWN)	65 – 60 KIAS
2.	Wing Flaps	AS REQUIRED
3.	Mixture	IDLE/CUT OFF
4.	Fuel Selector Valve	OFF
5.	Ignition Switch	OFF
6.	Master Switch	OFF
7.	Doors	OPEN LATCH

(ENROUTE) CLIMB

1.	Flaps	UP
2.	Airspeed	70-85 KIAS
3.	Throttle	FULL OPEN
4.	Mixture below 3000 Feet	RICH
5.	Mixture above 3000 Feet	SET FOR CRUISE

NOTE: If a maximum performance climb is necessary, use speeds shown in the Rate Of Climb chart in Section 5 of AFM.

CRUISE

1.	Power (no more than 75% is recommended)	2300-2500 RPM
2.	Mixture (75F below Peak EGT = 3° left of max)	LEAN
3.	Trim	ADJUST

DESCEND

1.	Fuel Selector Valve	BOTH
2.	Power	AS DESIRED
3.	Mixture for smooth operation (full rich for idle power)	ADJUST
4.	Carburetor Heat	HOT

BEFORE LANDING

1.	Seats, Seat Belts, Shoulder Harnesses	SECURE
2.	Mixture	RICH
3.	Carburetor Heat (apply full heat before reducing power)	HOT
4.	Landing Lights and Strobes	ON
5.	Airspeed (Downwind – Base – Final)	90 – 80 – 70 KIAS
6.	Flaps	SET as required

BALKED LANDING / GO AROUND

1.	Throttle	FULL OPEN
2.	Carburetor Heat	COLD
3.	Wing Flaps	RETRACT TO 20 °
4.	Positive Rate of Climb	ESTABLISH
5.	Climb Speed	55 KIAS
6.	Wing Flaps(until obstacles are cleared)	10°
7.	Wing Flaps after reaching a safe altitude and 60 KIAS	RETRACT
8.	Radio	REPORT

NORMAL LANDING

1.	Airspeed	65 – 75 KIAS (flaps up)
2.	Wing Flaps (0°-10° below 110 KIAS, 10°-30° below 85 KIAS)	AS DESIRED
3.	Airspeed (flaps DOWN)	60 – 70 KIAS
4.	Braking	MINIMUM REQUIRED

For short field landing see next page!

SHORT FIELD LANDING

1.	Airspeed	65 – 75 KIAS (flaps UP)
2.	Wing Flaps	FULL DOWN (30°)
3.	Airspeed	61 KIAS (until flare)
4.	Power after clearing obstacle	REDUCE TO DLE
5.	Wind Correction	BANK INTO WIND
6.	Touchdown	MAIN WHEELS WIND SIDE FIRST
7.	Nose	FULL UP
8.	Brakes	APPLY HEAVILY (IF REQUIRED)
9.	Wing Flaps	RETRACT

AFTER LANDING

1.	Active Runway	CLEAR
2.	Carburetor Heat	COLD
3.	Wing Flaps	UP
4.	Taxi Light	ON
5.	Strobes, Pitot Heat, Landing Light	OFF
6.	Transponder	7000/STANDBY
7.	Trim	RESET NEUTRAL
8.	Flight Plan, if required	CLOSE

SHUTDOWN

1.	Parking Brake out of EDFE	SET AS REQUIRED
2.	Throttle	1000 RPM
3.	Radio	121.5, CHECK ELT
4.	Avionics Power Switch	OFF
5.	Electrical Equipment (except Beacon)	OFF
6.	Short Curcuit Test	IGNITION OFF-ON
7.	Mixture	IDLE CUT OFF
8.	Ignition Switch	OFF
9.	Key	OUT & on PANEL
10.	All Master Switches	OFF

SECURING AIRPLANE

1.	Hobbs and Tach	NOTE
2.	Control Lock	INSTALL
3.	Pitot Cover	INSTALL
4.	Cowl Plugs	INSTALL
5.	Front Window Heat Shield	INSTALL
6.	Cabin Air Vents (all 3)	CLOSE
7.	Belongings and Keys	REMOVED
8.	Both Master Switches	VERIFY OFF
9.	Chocks, Tie Down, Towing handle	AS REQUIRED
10.	Windows and Doors	CLOSED
11.	Doors and Baggage Door	LOCKED

EMERGENCY CHECKLISTS N98825

Fly the Aircraft.

Calm down. Breath deeply. There is a way out.

Ask your Co-Pilot for assistance.

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ENGINE FAILURE ENROUTE

Stop continuing with the checklist immediately,
once the engine has restarted!

1.	Airspeed	65 KIAS
2.	Landing field	CHOOSE
3.	Power	2,5cm in
4.	Carburator Heat	ON (PULL)
5.	Mixture	RICH (PUSH)
6.	Fuel Selector Valve	BOTH
7.	Primer	IN AND LOCKED
	>>> Prop is windmilling:	
8.	Ignition Switch	L-BOTH-R-BOTH
	>>> Prop standing still:	
9.	Ignition Switch	L-START-R-START
10.	Fuel Selector Valve	L-BOTH-R-BOTH
	If engine does not restart and altitude is high enough, inform ATC/request help as follows:	
	„MAYDAY, MAYDAY, MAYDAY, N98825, POSITION, POB, engine failure during flight, restart failed, a) RQ heading to closest airfield b) Commencing emergency descend, call you back ATC will give you priority after declaring an emergency	
11.	SQUAK	7700
12.	Continue with "NO ENGINE LANDING" List	

NO ENGINE LANDING

1.	Speed	65 KIAS
2.	Landing Area	CHOOSE
3.	Seatbelts	ADJUST
4.	Flaps	SET
5.	Mixture	IDLE/CUT OFF
6.	Fuel Selector Valve	OFF
7.	Ignition Swich	OFF
8.	If time permits and not yet done: „MAYDAY, MAYDAY, MAYDAY, N98825, POSITION, POB, commencing emergency landing“	
9.	After talking to ATC: Main Power Switch	OFF
10.	ELT	ACTIVATE
11.	Unwire Headsets&place in baggage compartment	CONFIRM
	SHORTLY BEFORE LANDING	
12.	Cabin doors	OPEN LATCHES
13.	Approach speed no flaps	65 KIAS
14.	Approach speed =/> 20° flaps	60 KIAS

ENCOUNTERING ICE

1.	Leave Area immediately - Climb/descent to area with temperature >5° - leave clouds / remain clear of clouds - reverse course carefully	
2.	Rudder Movement	PERMANENTLY
3.	Cabine Heat	MAXIMUM
4.	Flap Position	DO NOT CHANGE
5.	Engine Power	INCREASE
6.	Carburator Heat	HOT (PULL)
7.	Pitot Heat	ON
8.	Speed on Final	INCREASE

ENGINE FIRE

1.	Mixture	IDLE CUT-OFF
2.	Fuel Selector Valve	OFF
3.	Cabin Heat	OFF
4.	Airspeed (to extinguish fire, increase glide speed, if necessary)	100 KIAS
5.	If time permits: „MAYDAY, MAYDAY, MAYDAY, N98825, POSITION, POB, Fire on Board, commencing emergency landing	
6.	Master Switch	OFF
7.	Emergency Landing	EXECUTE
8.	Continue with “No Engine Emergency Landing” List	

ELECTRICAL FIRE

1.	Master Switch	OFF
2.	Avionic Power Switch	OFF
3.	ALL other Switches **except** Ignition Switch	OFF
4.	Vents, Cabin Air, Heat, Windows	CLOSED
5.	Fire Extinguisher	ACTIVATE
6.	Cabin	Ventilate
	If fire appears out and electrical power is necessary for the continuance of the flight:	
7.	Master Switch	ON
8.	Circuit Brakers (search faulty circuit, do NOT reset)	CHECK
9.	Radio Switches	ALL OFF
10.	Avionic Power Switch	ON
11.	Radio/Electrical Switches (with delay to identify short circuit)	ON, ONE AT A TIME
12.	Vents, Cabin Air, Heat (Only, if fire is completely extinguished)	OPEN

OTHER CRITICAL FAILURES/EVENTS

Oilpressure Drop

1. Oiltemperature normal: ABORT FLIGHT TO LAND,Engine Failure possible

2. Oiltemperature rises REDUCE POWER/CLIMB RATE and/or DESCEND
   LAND ASAP, ENGINE FAILURE LIKELY

Oiltemperatur too high

(Oilpressure GREEN, otherwise see above)

1. REDUCE POWER/CLIMB RATE and/or DESCEND
2. If after a while TEMP does not decrease: LAND ASAP
   (Engine failure possible)

Passenger Discomfort

Passenger has blue lips/fingernails/is confused (suffers from oxygen deficiency)	DESCENT
Passenger hyperventilates/fingers tiggling	SHOULD BREATH IN (PLASTIC) BAG
Passenger suffers from motion sickness: should	LOOK STRAIGHT OPEN AIR VENTS RELEASE HEADSET