Training aid only, not flight instruction. Review it with your CFI and get their approval before you use it in training or in the airplane. Check every number against the POH and current FAA sources. Last reviewed Nov 17, 2026 against the 1975 Cessna Model 172 and Skyhawk Owner's Manual (172M).

CESSNA 172M CHECKLIST

1975 Cessna 172M · 150 hp Lycoming O-320-E2D · Miles per hour

THE SPEEDS

MPH indicated (knots) · 2,300 lb · from the 1975 Owner's Manual

Speed	What it is	MPH	Knots
Rotate	Lift the nose wheel, normal takeoff	**60**	**52**
Obstacle climb	Maximum-performance takeoff, flaps up, until clear	**68**	**59**
Vx	Steepest climb, flaps up	**75**	**65**
Vy	Best rate of climb at sea level (80 at 10,000 ft)	**91**	**79**
Normal climb	After takeoff 75–85; en route, for cooling	**80–90**	**70–78**
Glide	Engine out, flaps up (70 with flaps down)	**75**	**65**
Restart	Airspeed while trying to restart	**80**	**70**
Approach	Flaps up / flaps down	**70–80 / 65–75**	**61–70 / 56–65**
Short field	Power-off approach, flaps 40	**70**	**61**
Go-around	Flaps 20, then 80–90 flaps up	**65**	**56**
Vfe	Top of the white arc: max with any flaps	**100**	**87**
Va	Maneuvering speed at 2,300 lb; lower when lighter	**112**	**97**
Vno	Top of the green arc: smooth air only above it	**145**	**126**
Vne	Red line: never exceed	**182**	**158**
Stall	Power off, flaps up / flaps 40 (calibrated)	**57 / 49**	**50 / 43**

Knots are the miles-per-hour figure × 0.87, rounded. The manual's limits (Vfe, Va, Vno, Vne) are calibrated airspeeds; near the stall the indicator reads low, so it shows stall speeds as calibrated too.

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PREFLIGHT AND START

Before the engine runs

Cabin

Documents	ON BOARD ours
Control wheel lock	REMOVE
Ignition switch	OFF
Master switch	ON
Fuel gauges	CHECK
Flaps	DOWN 40°, CHECK ours
Master switch	OFF
Fuel selector	BOTH
Baggage door	SECURE

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Walkaround: tail and right wing

Rudder gust lock	REMOVE, IF INSTALLED
Tail tie-down	DISCONNECT
Tail surfaces	FREE AND SECURE
Right aileron and flap	FREE AND SECURE
Right wing tie-down	DISCONNECT
Right main tire	INFLATED
Right tank sump	DRAIN: NO WATER, BLUE 100LL
Right tank	QUANTITY BY EYE, CAP SECURE

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Walkaround: nose

Oil	6 QT MINIMUM, 8 FOR LONG FLIGHTS
Fuel strainer	PULL ABOUT 4 SECONDS, CHECK CLOSED
Propeller and spinner	NO NICKS, SECURE
Landing light	CONDITION, CLEAN
Carburetor air filter	CLEAR
Nose strut and tire	INFLATED
Nose tie-down	DISCONNECT
Static port (left side)	CLEAR

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Walkaround: left wing

Left main tire	INFLATED
Left tank sump	DRAIN: NO WATER, BLUE 100LL
Left tank	QUANTITY BY EYE, CAP SECURE
Pitot tube	COVER OFF, CLEAR
Fuel tank vent	CLEAR
Stall warning vent	CLEAR
Left wing tie-down	DISCONNECT
Left aileron and flap	FREE AND SECURE

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Before starting the engine

Preflight	COMPLETE
Seats, belts, harnesses	ADJUST AND LOCK
Fuel selector	BOTH
Radios and electrical equipment	OFF
Brakes	TEST AND SET
Circuit breakers	IN ours

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Starting the engine

Mixture	RICH
Carburetor heat	COLD
Master switch	ON
Primer	2–6 STROKES IF COLD, NONE IF WARM; LOCK
Throttle	OPEN 1/8 INCH
Propeller area	CLEAR: CALL IT OUT
Ignition	START; RELEASE WHEN IT FIRES
Oil pressure	RISING WITHIN 30 S (60 S IN VERY COLD WEATHER), OR SHUT DOWN
Radios, lights, transponder	ON, AS NEEDED ours

Flooded: mixture idle cut-off, throttle full open, crank; then start again with no priming. Cold-weather starts: see Starting the Cessna 172 (written for the 172N and 172P; the same technique applies).

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RUN-UP AND TAKEOFF

Run-up at 1,700 RPM · carb heat cold for every takeoff

Before takeoff

Parking brake	SET
Doors and window	CLOSED AND LOCKED
Flight controls	FREE AND CORRECT
Elevator trim	TAKEOFF
Fuel selector	BOTH
Mixture	RICH (BELOW 3,000 FT)
Throttle	1,700 RPM
Magnetos	DROP 125 MAX, 50 APART MAX
Carburetor heat	CHECK FOR DROP, THEN COLD
Engine gauges and ammeter	GREEN
Suction gauge	CHECK
Flight instruments and radios	SET
Autopilot, if installed	OFF
Throttle friction	ADJUST
Flaps	UP (10° FOR A SOFT FIELD)
Transponder, lights	ALTITUDE, ON ours
Takeoff briefing	ABORT POINT, ENGINE-FAILURE PLAN ours

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Normal takeoff

Flaps	**UP**
Carburetor heat	**COLD**
Throttle	**FULL**
Full-power RPM	**ABOUT 2,270–2,370**
Nose wheel	**LIFT AT 60**
Climb	**75–85**

Rough engine or slow to accelerate early in the roll: abort.

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Maximum-performance takeoff

Flaps	UP
Carburetor heat	COLD
Brakes	HOLD
Throttle	FULL
Brakes	RELEASE
Attitude	SLIGHTLY TAIL LOW
Climb	68 UNTIL CLEAR OF OBSTACLES

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Soft or rough field

Flaps	10°
Lift-off	AS SOON AS PRACTICAL, TAIL LOW
Obstacle climb	65, FLAPS STILL 10°
Flaps	UP ONCE CLEAR, ACCELERATING TO 80–90

Never more than 10° of flaps for takeoff. On a hot, high day, use none.

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CLIMB, CRUISE AND DESCENT

Lean above 3,000 ft · carb heat at the first sign of ice

En route climb

Airspeed	80–90
Throttle	FULL
Mixture	RICH; LEAN ABOVE 3,000 FT

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Cruise

Power	**2,200–2,700 RPM, 75% MAX**
Trim	**ADJUST**
Mixture	**LEAN TO PEAK RPM, THEN A LITTLE RICH**

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Descent

Mixture	RICH
Power	AS DESIRED
Carburetor heat	AS NEEDED AGAINST ICE

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LANDING AND SHUTDOWN

Carb heat on before the throttle comes back

Before landing

Fuel selector	**BOTH**
Mixture	**RICH**
Carburetor heat	**ON, BEFORE CLOSING THE THROTTLE**
Airspeed, flaps up	**70–80**
Flaps	**AS DESIRED, BELOW 100**
Airspeed, flaps down	**65–75**

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Normal landing

Touchdown	MAIN WHEELS FIRST
Landing roll	LOWER THE NOSE WHEEL GENTLY
Braking	MINIMUM NEEDED

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Short-field landing

Flaps	**40°**
Approach	**70, POWER OFF**
Touchdown	**MAIN WHEELS FIRST**
Nose wheel	**DOWN AT ONCE**
Flaps	**UP, FOR BRAKING**
Elevator	**FULL NOSE UP**
Brakes	**HEAVY, WITHOUT SKIDDING**

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Go-around (balked landing)

Throttle	**FULL**
Carburetor heat	**COLD**
Flaps	**20° (FROM 40°: SWITCH UP ABOUT 2 SECONDS)**
Airspeed	**65 (65–75 IF OBSTACLES)**
Flaps	**UP SLOWLY ONCE CLEAR, ACCELERATING TO 80–90**

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Crosswind

Flaps	LEAST NEEDED FOR THE RUNWAY
Drift correction	WING LOW
Steep slips	AVOID WITH MORE THAN 20° OF FLAPS

The manual's demonstrated crosswind is 15 knots: what an average pilot handles, not a limit.

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After landing

Flaps	UP
Carburetor heat	COLD
Transponder, strobes	STANDBY, OFF ours

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Securing the airplane

Parking brake	SET
Radios and electrical equipment	OFF
Mixture	IDLE CUT-OFF
Ignition	OFF, KEY OUT ours
Master switch	OFF
Control lock	INSTALL
Tie-downs, chocks, pitot cover	ON ours

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EMERGENCIES

Fly the airplane first · then 121.5, squawk 7700 ours

Engine failure after takeoff

Airspeed	75 FLAPS UP, 70 FLAPS DOWN
Mixture	IDLE CUT-OFF
Fuel selector	OFF
Ignition	OFF
Flaps	AS NEEDED (40° RECOMMENDED)
Master switch	OFF

Lower the nose at once. Land nearly straight ahead; there is seldom enough height to turn back.

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Engine failure in flight: restart

Airspeed	80
Carburetor heat	ON
Fuel selector	BOTH
Mixture	RICH
Ignition	BOTH (START IF THE PROP HAS STOPPED)
Primer	IN AND LOCKED

Pick a field first, then work the restart while you glide toward it.

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Forced landing, no power

Airspeed	75 FLAPS UP, 70 FLAPS DOWN
Mixture	IDLE CUT-OFF
Fuel selector	OFF
Ignition	OFF
Flaps	AS NEEDED (40° RECOMMENDED)
Master switch	OFF, ONCE THE FLAPS ARE SET
Doors	UNLATCH BEFORE TOUCHDOWN
Touchdown	SLIGHTLY TAIL LOW
Brakes	HEAVY

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Precautionary landing with power

Inspection pass	FLAPS 20°, 70, LOW AND SAFE
Flaps	UP ONCE CLIMBING AWAY
Radios and electrical	OFF
Flaps on final	40°
Airspeed	70
Master switch	OFF
Doors	UNLATCH BEFORE TOUCHDOWN
Touchdown	SLIGHTLY TAIL LOW
Ignition	OFF
Brakes	HEAVY

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Engine fire during start

Starter	KEEP CRANKING
If it starts	1,700 RPM A FEW MINUTES, THEN SHUT DOWN AND INSPECT
If it won't start	THROTTLE FULL, KEEP CRANKING WHILE HELP BRINGS AN EXTINGUISHER
To put it out	STOP CRANKING; MASTER, IGNITION AND FUEL SELECTOR OFF
Fire	SMOTHER: EXTINGUISHER, BLANKET OR DIRT
Before flying again	INSPECT AND REPAIR THE DAMAGE

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Engine fire in flight

Mixture	IDLE CUT-OFF
Fuel selector	OFF
Master switch	OFF
Cabin heat and air	OFF (OVERHEAD VENTS OPEN)
Airspeed	120; FASTER IF THE FIRE KEEPS BURNING
Forced landing	CARRY IT OUT

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Electrical fire in flight

Master switch	OFF
Radios and electrical switches	OFF
Vents, cabin air and heat	CLOSED
Fire extinguisher	USE, IF CARRIED

If the fire is out and you need power to continue:

Master switch	ON
Circuit breakers	FIND THE TRIPPED ONE; DO NOT RESET IT
Radios and electrical	ON ONE AT A TIME, WAITING BETWEEN EACH
Vents, cabin air and heat	OPEN ONCE THE FIRE IS SURELY OUT

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Rough engine or power loss

Carb ice suspected	THROTTLE FULL, CARB HEAT FULL ON UNTIL SMOOTH
Then	CARB HEAT OFF, RESET THE THROTTLE; IF HEAT STAYS ON, USE THE LEAST THAT WORKS AND LEAN
Ignition	L, THEN R, BRIEFLY, TO FIND A BAD MAGNETO OR PLUGS
Fouled plugs	LEAN TO NORMAL CRUISE; IF NO BETTER, TRY RICHER
Bad magneto	TRY POWER AND MIXTURE; ELSE RUN ON THE GOOD ONE
Either way	LAND AT THE NEAREST AIRPORT

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Low oil pressure

Oil temperature normal	MAY BE THE GAUGE; LAND AT THE NEAREST AIRPORT AND INSPECT
Oil temperature rising	ENGINE FAILURE LIKELY: REDUCE POWER, CHOOSE A FIELD
Power on the approach	ONLY WHAT YOU NEED TO REACH THE TOUCHDOWN SPOT

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Electrical system

Over-voltage light on	**BOTH HALVES OF MASTER OFF, THEN ON**
Light stays out	**CHARGING IS BACK; KEEP WATCHING**
Light comes back	**LAND AS SOON AS PRACTICAL; USE LITTLE ELECTRICAL POWER**
Ammeter shows a steady discharge	**ALTERNATOR (ALT) SIDE OFF, NONESSENTIAL OFF, LAND AS SOON AS PRACTICAL**

At night, save the battery for the landing light and flaps.

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Spin recovery

Throttle	**IDLE**
Rudder	**FULL, AGAINST THE ROTATION**
Control wheel	**BRISKLY FORWARD OF NEUTRAL AFTER ¼ TURN**
Rotation stops	**RUDDER NEUTRAL, SMOOTH PULL-OUT**

Intentional spins are for the utility category only, never with flaps down.

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Lost in cloud, or a spiral

180° turn	**STANDARD RATE LEFT FOR 60 SECONDS ON THE TURN COORDINATOR**
Spiral	**THROTTLE CLOSED, LEVEL THE WINGS WITH AILERON AND RUDDER**
Airspeed	**EASE BACK TO 90 AND TRIM FOR IT**
Descent through cloud	**RICH, FULL CARB HEAT, 500–800 FPM, TRIMMED FOR 80–90**
Hands	**OFF THE WHEEL; STEER WITH RUDDER**

Ask ATC for help early. A failed vacuum pump takes out the attitude and heading indicators; the turn coordinator is electric.

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LIMITS AND SERVICING

Original airplane per the 1975 manual · the placards and supplements in yours govern

Weights and loads

- **Normal category:** 2,300 lb; +3.8 / –1.52 g flaps up, +3.0 g flaps down. Turns to 60° of bank; no aerobatics.
- **Utility category:** 2,000 lb, nobody in the back seat or baggage; +4.4 / –1.76 g. Steep turns entered at 112, chandelles and lazy eights at 120.
- **Baggage:** 120 lb.
- Work out weight and balance from the airplane's own empty weight and moment.

Engine and fluids

- **Engine:** Lycoming O-320-E2D, 150 hp at 2,700 RPM. Red line 2,700 RPM.
- **Oil:** 8 qt; do not fly with less than 6. Pressure 60–90 psi normal, 25 minimum at idle, 100 maximum. Temperature red line 245 °F.
- **Fuel:** standard tanks 42 gal, 38 usable; long-range tanks 52 gal, 48 usable. 2 gal unusable in each tank. Know which tanks your airplane has.
- **Carb air temperature gauge** (if fitted): yellow arc –15 °C to +5 °C is the icing range.

Training aid only, not flight instruction. Written by us from the 1975 Cessna Model 172 and Skyhawk Owner's Manual for a 172M with its original 150 hp engine; lines marked "ours" are our own additions. The manual, supplements and placards in the airplane you fly govern: an engine conversion, long-range tanks or other modifications change the numbers. Check every item against them and go through this checklist with your CFI before you use it.

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