

ENGINE FAILURE OR ABNORMALITY DURING TAKEOFF ROLL:

IMMEDIATELY CLOSE THROTTLE,
STOP STRAIGHT AHEAD & AVOID OBSTACLES
IF NOT ENOUGH RUNWAY REMAINS TO STOP:

THROTTLE..... IDLE
BRAKES APPLY
FLAPS RETRACT
MIXTURE.....CUTOFF
MAGNETOS OFF
STBY BATT SWITCH OFF
MASTER SWITCH (ALT & BAT) OFF

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF:

LAND ON REMAINING RUNWAY / WITHIN 30° OF CENTERLINE.
AVOID OBSTACLES. DO NOT ATTEMPT 180° TURN.

AIRSPEED 70 KIAS FLAPS UP
..... 65 KIAS FLAPS 10° - FULL
MIXTURE.....CUTOFF
MAGNETOS OFF
FUEL SHUTOFF OFF
FLAPS..... AS REQUIRED
STBY BATT SWITCH OFF
MASTER SWITCH (ALT & BAT) AS REQUIRED
CABIN DOOR UNLATCH
LAND..... STRAIGHT AHEAD

PARKING BRAKE..... RELEASE

Before Takeoff

MIXTURE..... FULL FWD (or set for altitude)

STROBE LIGHTS ON

TRANSPONDER..... ALT

ENGINE INSTRUMENTS CHECK

Climb (Out of 1000' AGL)

AIRSPEED V_Y / V_X / AS REQ
If a maximum performance climb is necessary, use speeds in rate-of-climb data charts in section 5 of the POH/AFM.

FLAPS..... UP

THROTTLE..... FULL

MIXTURE..... FULL RICH BELOW 3000' MSL

Cruise

POWER ($\leq 75\%$ power per POH/AFM) SET

ENGINE INSTRUMENTS CHECK

MIXTURE..... LEAN AS REQUIRED

In-Range / Descent

ATIS / AWOS (as early as possible) CHECK

ALTIMETER (PFD & standby) SET

PRELIMINARY APPROACH BRIEF

Type of Approach

Runway Length / Lighting

Field Elevation / Sector Altitude

Highest Obstacle / Terrain Review

NAV / Course / Minimums / Missed

Crosswind Component..... COMPLETE

AIRPORT DIAGRAM (keep available) CHECK

SEAT BELTS FASTENED

MIXTURE..... SLIGHTLY ENRICH

PRE-TAKEOFF BRIEF COMPLETE

Approach (Approx 15 NM from Airport)

ATIS/AWOS CHECK

APPROACH BRIEFING..... COMPLETE

ALTIMETER (PFD & standby) SET

FUEL SELECTOR..... BOTH

PARKING BRAKE CHECK RELEASED

LANDING & TAXI (or RECOG/TAXI if equipped) ON

CABIN PWR 12V SWITCH (if installed) OFF

WHEN DIRECT TO IAF OR VECTORED

FLIGHT & NAV INSTRUMENTS..... SET/IDENT

CDI SOFTKEY (as req. for approach) VOR/LOC/GPS

AIRSPEED 90 KIAS

Before Landing Checklist

FUEL SELECTOR..... BOTH

MIXTURE..... FWD

LANDING LIGHT AS REQ

*Avoid Slips with Flaps Extended***After Landing (Stopped)**

FLAPS..... UP

MIXTURE..... LEAN FOR RPM RISE

TRIM SET TAKEOFF

STROBE LIGHTS (if in interest of safety) OFF

LANDING & TAXI (or RECOG/TAXI if equipped) ON

TAXI CLEARANCE OBTAIN & BRIEF

Shutdown/Terminate

AVIONICS SWITCH (BUS 1 & 2) OFF

THROTTLE 1000 RPM

MIXTURE..... CUTOFF

MAGNETOS OFF

MASTER SWITCH (ALT & BAT) OFF

ELECTRICAL SWITCHES OFF

STBY BATT SWITCH OFF

CHECK-IN SUBMITTED ON HOLD SHORT

LOCK CONTROL SECURE

TIEDOWN / CHOCK SECURE

WALKAROUND COMPLETE



Cessna 172SP (G1000) Normal Checklist

This checklist is only for training purposes in AIRMAN aircraft and is not intended to replace the POH/AFM. Refer also to the POH/AFM in an actual emergency.

Revised 2021-08-24

Preflight Inspection

CHECK-OUT SUBMITTED ON HOLD SHORT

WEATHER CHECK

WEIGHT & BALANCE COMPUTE

FUEL (full, unless limited by W&B) AS REQ

OIL (6.5 Qt. minimum) CHECK

PITOT COVER REMOVE

INTERIOR

FIRE EXTINGUISHER CHECK

POH/AFM CHECK

AIRCRAFT DOCUMENTS CHECK

PARKING BRAKE SET

CONTROL WHEEL LOCK REMOVE

ALTERNATE STATIC SOURCE OFF

CIRCUIT BREAKERS CHECK IN

MAGNETOS OFF

AVIONICS SWITCH (BUS 1 & 2) OFF

MASTER SWITCH (ALT & BAT) ON

PRIMARY FLIGHT DISPLAY VERIFY ON

FUEL QUANTITY CHECK

AVIONICS FANS TEST

Cycle avionics switches individually. Listen for fans.

BEACON, STROBES, NAV & LANDING LIGHTS CHECK

PITOT HEAT (if IFR) CHECK

FLAPS..... FULLY EXTEND

MASTER SWITCH (ALT & BAT) OFF

TRIM SET TAKEOFF

FUEL SELECTOR..... BOTH

FUEL SHUTOFF IN

BAGGAGE & LOOSE ITEMS STOWED

EMPENAGE

BAGGAGE DOOR CHECK

CONTROL SURFACES (freedom & security) CHECK

TRIM TAB CHECK

ANTENNAS CHECK

RIGHT WING TRAILING EDGE

FLAP (security) CHECK

AILERON (freedom & security) CHECK

Continued...

Preflight Inspection (Continued)

RIGHT WING & LEADING EDGE

FUEL TANK SUMPS (5) DRAIN
FUEL QUANTITY CHECK VISUALLY
FUEL FILLER CAP SECURE
Check for water and sediment.

MAIN WHEEL TIRE, BRAKE DISC & PADS CHECK
Check for wear and proper inflation.

NOSE

WINDSHIELD CHECK FOR CLEANLINESS
FUEL SUMPS (3) DRAIN
Check for water and sediment.

OIL LEVEL CHECK & SECURE CAP
Do not operate with less than 6.5 quarts for local training or less than 8 quarts for extended flights. Do not over-tighten oil cap.

OIL ACCESS DOOR SECURE
ENGINE COOLING AIR INLETS CHECK
ENGINE AIR FILTER CHECK
PROPELLER & SPINNER CHECK
NOSE WHEEL TIRE CHECK
NOSE WHEEL STRUT (approx. 3" extension) CHECK
STATIC SOURCE OPENING CHECK

LEFT WING & LEADING EDGE

FUEL TANK SUMPS (5) DRAIN
FUEL QUANTITY CHECK VISUALLY
FUEL FILLER CAP SECURE
PITOT TUBE CHECK UNOBSTRUCTED
STALL HORN OPENING CHECK UNOBSTRUCTED
FUEL TANK VENT CHECK

LEFT WING TRAILING EDGE

AILERON (freedom & security) CHECK
FLAP (security) CHECK
MAIN WHEEL TIRE, BRAKE DISC & PADS CHECK
CHOCKS/TIEDOWNS VERIFY REMOVED
GENERAL WALKAROUND CHECK

Before Starting Engine

PREFLIGHT INSPECTION COMPLETE
WT&BAL, DOCS, PERFORMANCE CHECK
PASSENGER BRIEF COMPLETE
Doors, Seats & Seatbelts (Positive Latch), Fire Extinguisher,
No Smoking, PIC Authority, Positive Exchange of Controls

SEAT & SEAT BELTS ADJUST & LOCK
MAGNETOS OFF
ELECTRICAL SWITCHES OFF
AVIONICS SWITCH (BUS 1 & 2) OFF
FUEL SELECTOR BOTH
FUEL SHUTOFF (push full in) ON
STBY BATT SWITCH TEST
Hold for 10 seconds. Verify that green TEST lamp remains illuminated.

STBY BATT SWITCH ARM
Verify PFD comes on.

Continued..

Before Starting Engine (Continued)

ENGINE INDICATING SYSTEM

BUS E Volts - 24 VOLTS Minimum
M BUS Volts - 1.5 or Less
BATT S Amps - Verify Discharge Shown (negative)
STBY BATT Annunciator Listed in Alerts
No Red X's Through Engine Page Indicators CHECK
MASTER SWITCH (ALT & BAT) ON
BEACON ON
NAV LIGHTS (night only) ON

Engine Start

THROTTLE ¼" OPEN

COLD ENGINE

FUEL PUMP ON
MIXTURE RICH 3-5 SECONDS
UNTIL STABLE FUEL FLOW, THEN CUTOFF
FUEL PUMP OFF

WARM ENGINE SKIP "COLD ENGINE" PROCEDURE

PROP AREA CLEAR
MAGNETOS (8 seconds max) START
MIXTURE (advance smoothly as engine starts) RICH

WHEN ENGINE STARTS

THROTTLE 1000 RPM
OIL PRESSURE (in 15 seconds) CHECK GREEN
MIXTURE LEAN FOR RPM RISE
THROTTLE 1000 RPM
AMPS (M BATT & S BATT) CHECK (positive charge)
LOW VOLTS ANNUNCIATOR CHECK (not visible)
FLAPS UP

After Start

AVIONICS SWITCH (BUS 1 & 2) ON
HEADSETS ON
MFD DATABASE CHECKED / ENT
FUEL REMAINING SET (on MFD)
COMS ATIS/AWOS/CLEARANCE IF REQ
ALTIMETER (PFD & standby) SET
GPS ENTER WPT / FPL / APR AS REQUIRED
CDI SOFTKEY (as req. for departure) VOR/LOC/GPS
NAVS SET / COURSE SET
FLIGHT INSTRUMENTS (PFD & standby) CHECK
PFD/MFD DISPLAY BACKUP AS REQ

Taxi

PARKING BRAKE RELEASE
AIRPORT DIAGRAM OUT/AVAILABLE
TAXI CLEARANCE OBTAIN / BRIEF
LANDING & TAXI (or RECOG/TAXI if equipped) ON*
TAXI AREA CLEAR
BRAKES CHECK
FLIGHT INSTRUMENTS (PFD & standby) CHECK
STERILE COCKPIT NO NON-ESSENTIAL CONVERSATION

*Turn off your taxi or landing lights when stopped, yielding, or as a consideration to other pilots, drivers or ground personnel. At all other times LANDING or RECOG/TAXI lights are to remain on for all aircraft movement and flight.

Run Up

PARKING BRAKE SET
SEAT BACKS MOST UPRIGHT POSITION
SEAT BELTS & SHOULDER HARNESS FASTENED
DOORS & WINDOWS CLOSED & LOCKED
FLIGHT CONTROLS FREE & CORRECT
FLIGHT INSTRUMENTS (PFD) CHECK & SET
STBY FLIGHT INSTRUMENTS CHECK
FUEL QUANTITY CHECK / SUFFICIENT
FUEL SELECTOR BOTH
MIXTURE RICH / FULL FWD
THROTTLE 1800 RPM
MAGNETOS CHECK
Drop should not exceed 150 RPM on either magneto
or a difference of 50 RPM between the two.

VAC INDICATOR CHECK
AMMETER & VOLTMETER CHECK POSITIVE
ANNUNCIATORS CHECK (none)
THROTTLE IDLE / CHECK 600-800 RPM
THROTTLE 1000 RPM
MIXTURE LEAN FOR RPM RISE
S BATT AMPS VERIFY LESS THAN 0.4
ENGINE INSTRUMENTS CHECK

TRIM SET TAKEOFF
FLAPS SET
CDI SOFTKEY (as req. for departure) VOR/LOC/GPS
HSI COURSE SET/VERIFIED W/ MAG COMPASS
DEPARTURE BRIEF

Initial Altitude & Heading
Brief Departure Procedure COMPLETE

High Volts Annunciator (Or M BAT AMPS > 40)

MASTER SWITCH (ALT only) OFF
ELEC. LOAD REDUCTION CHECKLIST COMPLETE

Low Volts Annunciator During Flight

MASTER SWITCH (ALT only) OFF
ALTERNATOR CIRCUIT BREAKER (ALT field) CHECK IN
MASTER SWITCH (ALT & BAT) ON
LOW VOLTS ANNUNCIATOR CHECK OFF
M BUS VOLTS CHECK (27.5V minimum)
M BATT AMPS CHECK (positive charge)

IF LOW VOLTS ANNUNCIATOR REMAINS ON

MASTER SWITCH (ALT only) OFF
ELEC. LOAD REDUCTION CHECKLIST COMPLETE

Electrical Load Reduction

ELECTRICAL LOAD REDUCE (immediately as follows)
AVIONICS SWITCH (BUS 1) OFF
PITOT HEAT OFF
BEACON OFF
LANDING & RECOG/TAXI LIGHT OFF (use as required for landing)
TAXI (Pre 2012) and NAV LIGHTS OFF
STROBE LIGHTS OFF
CABIN POWER 12V OFF
COM1 & NAV1 TUNE TO ACTIVE FREQUENCY
COM1 MIC & NAV1 SELECT
AVIONICS SWITCH (BUS 2) OFF (keep ON if in IMC)

LAND AS SOON AS PRACTICAL

NOTE: When AVIONICS SWITCH (BUS 2) is set to OFF, the following items will not operate: KAP 140 Autopilot, COMM2, GTX 33 Transponder, GMA 1347 Audio Panel, NAV2, GDU 1040 MFD.

Make sure a successful landing is possible before extending flaps. The flap motor draws a large electrical load.

Spin Recovery

In the event the aircraft enters an unintentional spin, proceed as follows.

THROTTLE IMMEDIATELY CLOSED
AILERONS NEUTRALIZE
RUDDER FULL, OPPOSITE ROTATION
ELEVATOR CONTROL
..... BRISKLY FORWARD PAST CENTER

ONCE ROTATION STOPS

RUDDER NEUTRALIZE
SMOOTHLY RECOVER FROM DIVE

WHEN STRAIGHT & LEVEL

THROTTLE FULL

Pattern Work

(Touch & Go's Prohibited Except With Instructor)

Before Landing Checklist

FUEL SELECTOR BOTH
MIXTURE FWD

Go Around / Missed Approach

THROTTLE FULL
FLAPS (If > 20°) RETRACT 20°
PITCH EST CLIMB
FLAPS (> 60 KIAS) RETRACT 10°
AIRSPEED $V_Y / V_X / AS REQ$

AT SAFE ALTITUDE & > 65 KIAS

FLAPS UP
FLY ASSIGNED/PUBLISHED HEADING & ALTITUDE

Touch and Go

MAINTAIN CENTERLINE
FLAPS UP
THROTTLE FULL

Standardized Speeds

80 KIAS FLAPS 10° - 1500 RPM
70 KIAS FLAPS 20° - ON BASE
65 KIAS FLAPS 30° - ON FINAL UNTIL ROUNDOUT

WHEN LANDING ASSURED.

SOFT FIELD 61 KIAS - FLAPS 30°
SHORT FIELD 61 KIAS - FLAPS 30°

After Landing (Stopped)

FLAPS UP
MIXTURE LEAN FOR RPM RISE
TRIM SET TAKEOFF
STROBE LIGHTS (if in interest of safety) OFF
LANDING & TAXI (or RECOG/TAXI if equipped) ON
TAXI CLEARANCE OBTAIN & BRIEF

Before Takeoff

MIXTURE FULL FWD (or set for altitude)
DOORS & WINDOWS CLOSED & LOCKED
STROBE LIGHTS ON
TRANSPONDER ALT
ENGINE INSTRUMENTS CHECK



Cessna 172SP (G1000) Emergency & Abnormal Checklist

This checklist is only for training purposes in AIRMAN aircraft and is not intended to replace the POH/AFM. Refer also to the POH/AFM in an actual emergency.

Revised 2021-08-24

Engine Failure During Takeoff Roll

THROTTLE IDLE
BRAKES APPLY
FLAPS RETRACT
MIXTURE CUTOFF
MAGNETOS OFF
STBY BATT SWITCH OFF
MASTER SWITCH (ALT & BAT) OFF

Engine Failure Immed. After Takeoff

AIRSPEED 70 KIAS FLAPS UP
..... 65 KIAS FLAPS 10° - FULL
MIXTURE CUTOFF
FUEL SHUTOFF OFF
MAGNETOS OFF
FLAPS (FULL recommended) AS REQUIRED
STBY BATT SWITCH OFF
MASTER SWITCH (ALT & BAT) OFF
CABIN DOOR UNLATCH
LAND STRAIGHT AHEAD

Engine Failure During Flight Restart Procedures

AIRSPEED 68 KIAS
FUEL SHUTOFF ON
FUEL SELECTOR BOTH
FUEL PUMP ON
MIXTURE (if restart has not occurred) RICH
MAGNETOS BOTH (START if propeller is stopped)

IF ENGINE RESTARTS

FUEL PUMP OFF
If fuel flow (fflow gph) immediately drops to zero, return the fuel pump switch to the on position

Precautionary Landing With Engine Power

LANDING AREA SELECT & INSPECT
AIRSPEED 65 KIAS

ON FINAL APPROACH

FLAPS FULL
STBY BATT SWITCH OFF
MASTER SWITCH (ALT & BAT) OFF (landing assured)
DOORS UNLATCH
MIXTURE CONTROL CUTOFF
MAGNETOS OFF
BRAKES APPLY HEAVILY

Emergency Landing No Engine Power

LANDING AREA SELECT & INSPECT
AIRSPEED BEST GLIDE

ON FINAL APPROACH

MIXTURE CUTOFF
FUEL SHUTOFF OFF
MAGNETOS OFF
FLAPS (FULL recommended) AS REQUIRED
STBY BATT SWITCH OFF
MASTER SWITCH (ALT & BAT) OFF (landing assured)
DOORS UNLATCH
BRAKES APPLY HEAVILY

Static Source Blockage

ALT STATIC AIR PULL ON
CABIN HEAT & CABIN AIR KNOBS PULL ON
VENTS CLOSED

Refer to Section 5, Figure 5-1 (Sheet 2) Airspeed / Calibration,
Alternate Static Source correction chart.

Engine Fire During Start

MAGNETOS START (continue cranking to start engine)

IF ENGINE STARTS

THROTTLE 1800 RPM (for a few minutes)
ENGINE SHUTDOWN (and inspect for damage)

IF ENGINE FAILS TO START

THROTTLE FULL
MIXTURE CUT OFF
MAGNETOS START (continue cranking)
FUEL SHUTOFF OFF
FUEL PUMP OFF
MAGNETOS OFF
STBY BATT SWITCH OFF
MASTER SWITCH (ALT & BAT) OFF
ENGINE SECURE
FIRE EXTINGUISHER OBTAIN
EVACUATE AIRCRAFT & ACTIVATE FIRE EXTINGUISHER

Engine Fire In Flight

MIXTURE CUTOFF
FUEL SHUTOFF OFF
FUEL PUMP OFF
MASTER SWITCH (ALT & BAT) OFF
CABIN HEAT & AIR (except overhead vents) OFF
AIRSPEED INCREASE AS REQ TO EXTINGUISH FIRE
EXECUTE FORCED LANDING

Electrical Fire In Flight

STBY BATT SWITCH OFF
MASTER SWITCH (ALT & BAT) OFF
VENTS/CABIN AIR/HEAT CLOSED
FIRE EXTINGUISHER ACTIVATE
AVIONICS (BUS 1 & 2) OFF
ALL OTHER SWITCHES (except MAGNETOS switch) OFF

WHEN FIRE IS OUT

CABIN VENTILATE

FIRE OUT & ELECTRICAL POWER REQUIRED FOR FLIGHT TO NEAREST SUITABLE AIRPORT OR LANDING AREA:

CIRCUIT BREAKERS (do not reset) CHECK (for OPEN circuits)
MASTER SWITCH (ALT & BAT) ON
STBY BATT SWITCH ON
AVIONICS (BUS 1) ON
AVIONICS (BUS 2) ON

Cabin Fire

STBY BATT SWITCH OFF
MASTER SWITCH (ALT & BAT) OFF
VENTS/CABIN AIR/HEAT (to avoid drafts) CLOSED
FIRE EXTINGUISHER ACTIVATE

WHEN FIRE IS OUT

CABIN VENTILATE
LAND AS SOON AS POSSIBLE

Wing Fire

LANDING & TAXI (or RECOG/TAXI if equipped) OFF
NAV LIGHTS OFF
STROBE LIGHTS OFF
PITOT HEAT OFF
Perform a sideslip to keep the flames away from the fuel tank and cabin. Land as soon as possible using flaps only as required for final approach and touchdown.

CO LVL High Annunciator

CABIN HEAT KNOB OFF (PUSH FULL IN)
CABIN AIR KNOB ON (PULL FULL OUT)
CABIN VENTS OPEN
CABIN WINDOWS (if < 163 KIAS) OPEN

CO LVL HIGH ANNUNCIATOR REMAINS ON

LAND AS SOON AS PRACTICAL

Excessive Fuel Vapor (Fuel Flow Stabilization Procedure)

If flow fluctuations of 1 GPH or more, or power surges occur:

FUEL PUMP ON
MIXTURE ADJUST (for smooth engine operation)

IF SYMPTOMS CONTINUE

FUEL SELECTOR SELECT OPPOSITE TANK

IF FUEL FLOW HAS STABILIZED

FUEL PUMP OFF

PFD1 or MFD1 Cooling Annunciator

CABIN HEAT (CABIN HT) REDUCE
FORWARD AVIONICS FAN CHECK
Feel for airflow from screen on glareshield.

IF FORWARD AVIONICS FAN HAS FAILED

STBY BATT SWITCH (unless needed for emer. power) OFF

IF ANNUNCIATOR DOES NOT GO OFF WITHIN 3 MINUTES OR IF BOTH PFD1 & MFD1 COOLING ANNUNCIATORS COME ON

STBY BATT SWITCH OFF
LAND AS SOON AS PRACTICAL

Red X - PFD ASI / ALT / AI / HSI

ADC/AHRS CIRCUIT BREAKERS CHECK IN
If open, reset (close) circuit breaker. If opens again, do not reset.

FAILED INSTRUMENT

STANDBY ASI USE FOR AIRSPEED INFORMATION
STANDBY ALTIMETER USE FOR ALTITUDE
Verify current altimeter setting.

STANDBY ATTITUDE INDICATOR USE FOR ATTITUDE
MAGNETIC COMPASS USE FOR HEADING

Low Vacuum Annunciator

VACUUM INDICATOR (VAC) CHECK
Check EIS to make sure VAC pointer is in green arc limits.

CAUTION: If vacuum pointer is out of the green arc during flight or the gyro flag is shown on the standby attitude indicator, the standby attitude indicator must not be used for attitude information.

Cleaning Fouled Spark Plugs

CAUTION: Hold brakes securely and remain vigilant for aircraft movement; only perform runup on surface free from gravel/dirt.

THROTTLE 2000 RPM
MIXTURE LEAN FOR SLIGHT RPM DROP
MAINTAIN FOR 60 SECONDS
MONITOR CHT
MIXTURE FULL FORWARD
THROTTLE 1800 RPM
PERFORM MAGNETO CHECK

Note:

While performing the above checklist, do not allow oil temperature to reach redline and be vigilant of oil pressure.