



Aircraft Checklist

Cessna 172S

This is an abbreviated checklist. Most explanatory items, notes cautions and warnings have been omitted for brevity. Procedures in red/bold text of this checklist should be committed to memory. All performance speeds should be computed prior to flight using the Aircraft Owner's Manual. This checklist is for training purposes only; users must be familiar with and operate in accordance with the official Aircraft Owner's Manual.

Cabin Preflight Inspection

REMOVE GUST LOCKS & PITOT COVER IF INSTALLED

- | | |
|----------------------------------|-----------------------|
| 1. Fuel Quantities | CHECK |
| 2. Inspections | CHECK DATES and TIMES |
| 3. Weight and CG | WITHIN LIMITS |
| 4. Documents | CHECK |
| 5. Control Wheel Lock | REMOVE |
| 6. Ignition Switch | OFF |
| 7. Avionics Switch | OFF |
| 8. Master Switch | ON |
| 9. Avionics Switch | ON |
| 10. Avionics Cooling Fan | CHECK ON |
| 11. Avionics Switch | OFF |
| 12. Fuel Quantity Indicators | CHECK |
| 13. Flaps | EXTEND |
| 14. Interior and Exterior Lights | CHECK |
| 15. Pitot Heat | CHECK THEN OFF |
| 16. Master Switch | OFF |
| 17. Fuel Shutoff Valve | ON |
| 18. Fire Extinguisher | CHECK CHARGE |

EXTERIOR PREFLIGHT INSPECTION

Empennage

- | | |
|---------------------------|--------|
| 1. Antennas | CHECK |
| 2. Baggage Door | LOCKED |
| 3. Autopilot Static Port | CHECK |
| 4. Left Side of Fuselage | CHECK |
| 5. Control Surfaces | CHECK |
| 6. Tail Tie-down | REMOVE |
| 7. Beacon/Position Light | CHECK |
| 8. Right Side of Fuselage | CHECK |

Right Wing

- | | |
|---------------------|---------------------|
| 1. Flap and Aileron | CHECK |
| 2. Position Light | CHECK |
| 3. Strobe | CHECK |
| 4. Wing | CHECK |
| 5. Wing Tie-down | REMOVE |
| 6. Wing Root Vents | CHECK |
| 7. Wheel Assembly | CHECK |
| 8. Fuel Tank Sumps | (5) DRAIN and CHECK |
| 9. Fuel Quantity | CHECK/ CAP SECURE |

Nose

- | | |
|-----------------------------------|---------------------|
| 1. Fuel Sumps | (3) DRAIN and CHECK |
| 2. Oil Quantity | (5-8 quarts) CHECK |
| 3. Oil Cooler | CHECK |
| 4. Cowling, Propeller and Spinner | CHECK |
| 5. Air Inlets | CLEAR |
| 6. Alternator Belt | CHECK |
| 7. Air Filter | CHECK |
| 8. Nose Wheel Assembly | CHECK |
| 9. Static Port | CHECK |
| 10. Windshield | CLEAN and CHECK |

Left Wing

- | | |
|--------------------------|---------------------|
| 1. Fuel Tank Sumps | (5) DRAIN and CHECK |
| 2. Fuel Quantity | CHECK / CAP SECURE |
| 3. Wing Root Vents | CHECK |
| 4. Pitot Tube | CHECK |
| 5. Stall Warning Opening | CHECK for BLOCKAGE |
| 6. Wing Tie-down | REMOVE |
| 7. Fuel Tank Vent | CHECK for BLOCKAGE |
| 8. Wing | CHECK |
| 9. Position Light | CHECK |
| 10. Strobe | CHECK |
| 11. Flap and Aileron | CHECK |
| 12. Wheel Assembly | CHECK |

Before Starting Engine

- | | |
|---------------------------------|------------------|
| 1. Preflight Inspection | COMPLETE |
| 2. Passenger Briefing | COMPLETE |
| 3. Seat Belts/ Shoulder Harness | ADJUSTED/ SECURE |
| 4. Fuel Shutoff Valve | ON |
| 5. Fuel Selector Valve | BOTH |
| 6. Circuit Breakers | CHECK IN |
| 7. Avionics Master Switch | OFF |
| 8. Brakes | TEST and SET |

V Speeds

V _{so}		40 KIAS
V _s		48 KIAS
V _r		55 KIAS
V _x	Sea Level	62 KIAS
	10,000	67 KIAS
V _y	Sea Level	74 KIAS
	10,000	72 KIAS
V _{fe}	10°	110 KIAS
	Full	85 KIAS
V _a	2550Lbs	105 KIAS
	2200Lbs	98 KIAS
	1900Lbs	90 KIAS
V _{no}		129 KIAS
V _{ne}		163 KIAS

Starting Engine

- | | |
|---------------------------------|------------------|
| 1. Mixture | IDLE CUT-OFF |
| 2. Throttle | OPEN ¼ to ½ INCH |
| 3. Beacon | ON |
| 4. Master Switch (Battery Only) | ON |
| 5. Aux. Fuel Pump | ON |
| 6. Mixture | FULL RICH |
| UNTIL FUEL PRESSURE RISES | |
| 7. Mixture | IDLE CUT-OFF |
| 8. Aux. Fuel Pump | OFF |
| 9. Propeller Area | CLEAR |
| 10. Ignition | ENGAGE |

Do not crank more than 10 seconds/Allow 20 seconds to cool*

- | | |
|--|------------------------------|
| 11. Mixture | WHEN ENGINE STARTS FULL RICH |
| 12. Throttle | 1000 RPM |
| 13. Oil Pressure | INDICATING GREEN |
| 14. Mixture | LEAN for TAXI |
| <u>15.</u> Alternator | ON |
| <u>16.</u> Ammeter | CHECK |
| <u>17.</u> Flaps | RETRACT |
| <u>18.</u> Navigation Lights | AS REQUIRED |
| <u>19.</u> Avionics Master Switch | ON |
| <u>20.</u> Transponder | STANDBY/1200 |
| <u>21.</u> Heading Indicator | SET |
| <u>22.</u> ASOS/ATIS | OBTAIN |
| <u>23.</u> Altimeter | SET |
| <u>24.</u> Advisory/Departure & Taxi Clearance | CONTACT |

**Refer to POH if engine does not start after 3 attempts*

Taxi

- | | |
|---------------------------|-------|
| 1. Brakes | CHECK |
| 2. Instrument Cross-Check | CHECK |

Before Takeoff

- | | |
|-------------------------------------|--------------------------------|
| 1. Nose Wheel | STRAIGHT |
| 2. Brakes | SET and HOLD |
| 3. Flight Controls | FREE and CORRECT |
| 4. Fuel Shutoff Valve | ON |
| 5. Mixture | RICH |
| 6. Throttle | 1800 RPM |
| 7. Mixture | SET for DENSITY ALTITUDE |
| 8. Magnetos | (125 max drop, 50 diff.) CHECK |
| 9. Engine Gauges and Ammeter | CHECK |
| 10. Vacuum | GREEN ARC |
| 11. Annunciator Panel | CHECK |
| 12. Throttle | CHECK IDLE |
| 13. Throttle | 1000 RPM |
| 14. Throttle Friction Lock | ADJUST |
| 15. Communication/Navigation Radios | SET |
| 16. NAV/GPS Switch | SET |
| 17. Flight Instruments | SET and CHECKED |
| 18. Fuel Quantities | CHECKED |
| 19. Trim | TEST/SET for TAKEOFF |
| 20. Autopilot | TEST/OFF |

- | | |
|---------------------------|-------------------------|
| 21. Flaps | SET for TAKEOFF |
| 22. Cabin Doors & Windows | CLOSED and LATCHED |
| 23. Seats | ADJUSTED/ LOCKED |
| 24. Departure Briefing | CLEARANCE / EMERG. PLAN |
| 25. Advisory/ Tower | CONTACT |

Cleared For Takeoff

- | | |
|----------------|-------------|
| 1. Lights | AS REQUIRED |
| 2. Transponder | ALTITUDE |
| 3. Brakes | RELEASE |
| 4. Traffic | CHECK |

Normal Takeoff

- | | |
|---------------------|-----------------------|
| 1. Wing Flaps | 0°-10° |
| 2. Throttle | FULL OPEN |
| 3. Elevator Control | LIFT NOSE AT 55 KIAS |
| 4. Climb Speed | 70-80 KIAS |
| 5. Wing Flaps | RETRACT IF APPLICABLE |

Short Field Takeoff

- | | |
|------------------|-----------|
| 1. Wing Flaps | 10° |
| 2. Brakes | HOLD |
| 3. Throttle | FULL OPEN |
| 4. Engine Gauges | GREEN |
| 5. Brakes | RELEASE |

- 6. Elevator Control SLIGHTLY TAIL LOW
- 7. Obstacle Clearance Speed 56 KIAS

After Clearing Obstacle:

- 8. Airspeed ACCELERATE FOR NORMAL CLIMB
- 9. Wing Flaps RETRACT

Soft Field Takeoff

- 1. Wing Flaps 10°
- 2. Elevator Control TAIL LOW
- 3. Throttle FULL OPEN
- 4. Accelerate WHILE IN GROUND EFFECT
- 5. Climb Speed 65 KIAS
- 6. Wing Flaps RETRACT

Enroute Climb

- 1. Airspeed 85-100 KIAS
- 2. Throttle FULL OPEN
- 3. Mixture AS REQUIRED

Cruise

- | | |
|----------------------|-----------------|
| 1. Power | SET for CRUISE |
| 2. Trim | AS REQUIRED |
| 3. Mixture | LEAN for CRUISE |
| 4. Landing Light | AS REQUIRED |
| 5. Heading Indicator | CROSS-CHECK |

Descent

- | | |
|-------------------------------|--------------------|
| 1. ASOS/ATIS | OBTAIN |
| 2. Altimeter | SET |
| 3. Arrival/Passenger Briefing | COMPLETE |
| 4. Mixture | ADJUST AS REQUIRED |
| 5. Power | AS REQUIRED |
| 6. Landing Light | ON |
| 7. Wing Flaps | AS REQUIRED |
| 8. Fuel Selector Valve | BOTH |

Before Landing

- | | |
|--|---------------|
| 1. Seats, Belts and Shoulder Harnesses | ADJUST/LOCKED |
| 2. Mixture | AS REQUIRED |
| 3. Autopilot | OFF |

Normal Landing

- | | |
|---------------|----------------------|
| 1. Power | AS REQUIRED |
| 2. Airspeed | (Flaps UP) 70 KIAS |
| 3. Wing Flaps | AS REQUIRED |
| 4. Airspeed | (Flaps DOWN) 65 KIAS |
| 5. Touchdown | MAIN WHEELS FIRST |
| 6. Brakes | APPLY AS NECESSARY |

Short Field Landing

- | | |
|---------------|--------------------|
| 1. Power | AS REQUIRED |
| 2. Wing Flaps | 30° |
| 3. Airspeed | 61 KIAS |
| 4. Touchdown | MAIN WHEELS FIRST |
| 5. Wing Flaps | RETRACT |
| 6. Brakes | APPLY AS NECESSARY |

Soft Field Landing

- | | |
|-----------------|-------------------|
| 1. Power | AS REQUIRED |
| 2. Wing Flaps | 30° |
| 3. Airspeed | 65 KIAS |
| 4. Touchdown | MAIN WHEELS FIRST |
| 5. Landing Roll | TAIL LOW |

Go Around (Balked Landing)

- | | |
|----------------|------------------------------------|
| 1. Throttle | FULL OPEN |
| 2. Wing Flaps | RETRACT TO 20° |
| 3. Climb Speed | 60 KIAS |
| 4. Wing Flaps | 10° |
| 5. Wing Flaps | (after clearing obstacles) RETRACT |

AFTER LANDING / CLEAR OF RUNWAY

- | | |
|------------------------------|---------------|
| 1. Flaps | UP |
| 2. Mixture | LEAN for TAXI |
| 3. Landing Light | OFF |
| 4. Strobes | OFF |
| 5. Transponder | STANDBY |
| 6. Taxi Clearance / Advisory | CONTACT |

Securing Airplane

- | | |
|------------------------------|-----------------|
| 1. Avionics Master Switch | OFF |
| 2. Throttle | IDLE |
| 3. Magnetos | CHECK GROUNDING |
| 4. Throttle | 1000 RPM |
| 5. Mixture | IDLE CUT-OFF |
| 6. Ignition | OFF |
| 7. Master Switch | OFF |
| 8. Beacon | OFF |
| 9. Fuel Selector | LEFT/RIGHT |
| 10. Control Lock | INSTALL |
| 11. Flight Information | RECORD |
| 12. Pitot Tube Cover | INSTALL |
| 13. Wheel Chocks & Tie Downs | SECURE |
| 14. Post Flight Walk-Around | COMPLETE |
| 15. Doors | LOCKED |

ABNORMAL PROCEDURES

Flooded Start

- | | |
|-------------------|--------------|
| 1. Mixture | IDLE CUT-OFF |
| 2. Throttle | FULL OPEN |
| 3. Beacon | ON |
| 4. Battery Switch | ON |
| 5. Aux. Fuel Pump | OFF |

Proceed with Item 9 from “Starting Engine” checklist page 6

Ammeter Shows Excessive Rate Of Charge

- | | |
|--------------------------------------|---------------------------|
| 1. Alternator | OFF |
| 2. Nonessential Electrical Equipment | OFF |
| 3. Flight | LAND AS SOON AS PRACTICAL |

Low Voltage Annunciator (Volts) Illuminates In Flight

- | | |
|-------------------------------|-------------|
| 1. Avionics Master Switch | OFF |
| 2. Alternator Circuit Breaker | CHECK IN |
| 3. Master Switch (Both Sides) | OFF then ON |
| 4. Low Voltage Light | CHECK OFF |
| 5. Avionics Master Switch | ON |

If Low Voltage Annunciator Illuminates Again:

- | | |
|--------------------------------------|-----------|
| 6. Alternator | OFF |
| 7. Nonessential Electrical Equipment | OFF |
| 8. Flight | TERMINATE |

Landing With A Flat Main Tire

- | | |
|--|-----------------|
| 1. Flaps | AS REQUIRED |
| 2. Approach | NORMAL |
| 3. Touchdown | GOOD TIRE FIRST |
| 4. Directional Control
(Using brake on good tire) | MAINTAIN |

Landing With a Flat Nose Tire

- | | |
|--------------|--|
| 1. Approach | NORMAL |
| 2. Flaps | AS REQUIRED |
| 3. Touchdown | ON MAINS |
| 4. Elevator | AS NECESSARY TO DELAY
NOSE GEAR CONTACT |

Maintain full aft elevator deflection during ground roll

EMERGENCY CHECKLIST

This is an operational checklist. Procedures in red/bod text in this section should be committed to memory. The official aircraft AFM contains additional procedures and expanded procedures not listed in this checklist. Users should be familiar with all procedures

Airspeeds For Emergency Operation

- Engine Failure After Takeoff (Flaps DOWN) 65 KIAS
- Maximum Glide 68 KIAS

Landing Without Engine Power:

- Flaps Up 65 KIAS
- Flaps Down 60 KIAS

Engine Failure Immediately After Takeoff

- | | | |
|------------------------------|-------------------|-----------------------|
| 1. Airspeed | (Flaps UP) | 70 KIAS |
| (Flaps DOWN) | 65 KIAS | |
| 2. Mixture | | IDLE CUT-OFF |
| 3. Fuel Shutoff Valve | | OFF |
| 4. Ignition Switch | | OFF |
| 5. Flaps | | AS REQUIRED |
| 6. Master Switch | | OFF |
| 7. Cabin Door | | UNLATCH |
| 8. Land | | STRAIGHT AHEAD |

Engine Failure / Power Loss During Flight

- | | |
|------------------------|------------|
| 1. Airspeed | 68 KIAS |
| 2. Fuel Shutoff Valve | ON |
| 3. Fuel Selector Valve | BOTH |
| 4. Aux Fuel Pump | ON |
| 5. Mixture | RICH |
| 6. Magnetos | CHECK BOTH |

If Power Is Restored

- | | |
|------------------|---------|
| 7. Aux Fuel Pump | OFF |
| 8. Fuel Flow | MONITOR |

Emergency Landing Without Engine Power

- | | |
|---|-------------------------------|
| 1. Airspeed | 68 KIAS |
| 2. Landing Site | DETERMINE |
| 3. Seats, Seatbelts, Shoulder Harnesses | SECURE |
| 4. Mixture | IDLE CUT-OFF |
| 5. Fuel Shutoff Valve | OFF |
| 6. Ignition Switch | OFF |
| 7. Flaps | AS REQUIRED (30° Recommended) |
| 8. Master Switch | OFF |
| 9. Doors | UNLATCH |
| 10. Touchdown | SLIGHTLY TAIL LOW |

11. Brakes

APPLY AS NECESSARY

Precautionary Landing With Engine Power

- | | |
|---------------------------------------|-------------------------------|
| 1. Seats, Seatbelts, Shoulder Harness | SECURE |
| 2. Airspeed | 65 KIAS |
| 3. Wing Flaps | 20° |
| 4. Selected Field | FLY OVER |
| 5. Avionics Master Switch | OFF |
| 6. Flaps | AS REQUIRED (30° Recommended) |
| 7. Airspeed | 65 KIAS |
| 8. Master Switch | OFF |
| 9. Doors | UNLATCH |
| 10. Touchdown | SLIGHTLY TAIL LOW |
| 11. Ignition Switch | OFF |
| 12. Brakes | APPLY AS NECESSARY |

Fire During Engine Start

1. Cranking

CONTINUE

If Engine Starts:

- | | |
|-----------|----------|
| 2. Power | 1800 RPM |
| 3. Engine | SHUTDOWN |

If Engine Fails to Start:

- | | |
|-----------------------|---------------------|
| 2. Throttle | FULL OPEN |
| 3. Mixture | IDLE CUT-OFF |
| 4. Cranking | CONTINUE |
| 5. Fuel Shutoff Valve | OFF |
| 6. Aux Fuel Pump | OFF |
| 7. Master Switch | OFF |
| 8. Ignition Switch | OFF |
| 9. Fire Extinguisher | OBTAIN |

Engine Fire In Flight

- | | |
|-----------------------|---------------------|
| 1. Mixture | IDLE CUT-OFF |
| 2. Fuel Shutoff Valve | OFF |
| 3. Aux Fuel Pump | OFF |
| 4. Master Switch | OFF |
| 5. Cabin Heat and Air | CLOSED |
| 6. Wing Root Vents | OPEN |
| 7. Airspeed | 100+ KIAS |
| 8. Forced Landing | EXECUTE |

Refer to “Emergency Landing Without Engine Power” checklist if time permits

Electrical Fire In Flight

- | | |
|------------------------------|-----------------|
| 1. Master Switch | OFF |
| 2. Vents, Cabin Heat and Air | CLOSED |
| 3. Fire Extinguisher | ACTIVATE |
| 4. Avionics Master Switch | OFF |

5. All Electrical Switches (except ignition) OFF

If Fire Appears Out

6. Vents/Cabin Air/Heat OPEN

7. Master Switch ON

8. Circuit Breakers CHECK (do not reset)

9. Radio Switches OFF

10. Avionics Master Switch. ON

11. Radio and Electrical Switches (one at a time) ON

Cabin Fire

1. Master Switch OFF

2. Vents, Cabin Heat and Air CLOSED

3. Fire Extinguisher (if available) ACTIVATE

4. Forced Landing EXECUTE

Refer to “Emergency Landing Without Engine Power” checklist if time permits

Wing Fire

1. Landing/Taxi Light Switch OFF

2. Navigation Light Switch OFF

3. Strobe Light Switch OFF

4. Pitot Heat Switch OFF

Perform A Side Slip To Keep The Flames Away From The Fuel Tank And Cabin, And Land As Soon As Possible With Flaps Retracted.

Should any mechanical difficulty, accident, incident or delay occur, please contact a Leading Edge Aviation representative before continuing any flight. **DO NOT FLY** any aircraft that may have been damaged, until it has been inspected and certified airworthy by a certified mechanic. Call Leading Edge Aviation 435-752-5955

Passenger/Crew Briefing Checklist

Before Engine Start:

1. Normal and emergency exit procedures
2. Seatbelt operations
3. Fire extinguisher location & operations
4. Identify PIC for the flight
5. Positive exchange of flight controls process

Before Take-Off:

1. Verify runway in use
2. Type of take-off
3. Direction of departure (VFR)
4. Departure clearance (IFR)
5. Emergency plan
 - a. Emergency on runway
 - b. Emergency after liftoff
 - c. Emergency at altitude
 - d. Flying/non-flying pilot roles during emergency operations

Approach:

1. Verify runway in use
2. Type of landing
3. Expected crosswind direction/intensity
4. Traffic pattern (VFR)
5. Instrument approach briefing (IFR)

Emergency Transponder Codes:

Air Piracy:	7500
Lost Communication:	7600
General Emergency:	7700

Emergency 2-Way Communication Frequency:

Guard Frequency: 121.5