



Aircraft Checklist

Cessna 172S Nav III

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.

Cessna 172S Preflight Checklist

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. G1000 Cockpit Reference Guide CHECK
6. Control Wheel Lock..... REMOVE
7. Ignition Switch..... OFF
8. Avionics Switch (Bus 1 and Bus 2) OFF
9. Master Switch ON
(Make Sure PFD is ON)
10. Fuel Quantities (L and R) CHECK
11. Low Fuel L and Low Fuel R Annunciators CHECK
12. Oil Pressure Annunciator INDICATED
13. Low Volts Annunciator..... INDICATED
14. Low Vacuum Annunciator..... INDICATED
15. Avionics Bus 1 ON
16. Forward Avionics Fan..... CHECK ON
17. Avionics Bus 1 OFF
18. Avionics Bus 2 ON
19. Aft Avionics Fan..... CHECK ON

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Cabin Preflight Inspection Continued

- 20. Avionics Bus 2 OFF
- 21. Flaps EXTEND
- 22. Interior and Exterior Lights CHECK
- 23. Pitot Heat CHECK THEN OFF
- 24. Master Switch OFF
- 25. Fuel Shutoff Valve ON
- 26. 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-downREMOVE
6. Wing Root Vents..... CHECK
7. Wheel Assembly CHECK
8. Fuel Tank Sumps (5) DRAIN and CHECK
9. Fuel QuantityCHECK/ 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. WindshieldCLEAN and CHECK

Left Wing

1. Fuel Tank Sumps (5) DRAIN and CHECK
2. Fuel QuantityCHECK / CAP SECURE
3. Wing Root Vents..... CHECK
4. Pitot Tube..... CHECK
5. Stall Warning OpeningCHECK for BLOCKAGE
6. Wing Tie-downREMOVE
7. Fuel Tank VentCHECK 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 BreakersCHECK 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 _xSea Level.....	62 KIAS
10,000.....	67 KIAS
V _ySea Level.....	74 KIAS
10,000.....	72 KIAS
V _{fe} 10°	110 KIAS
Full	85 KIAS
V _a2550Lbs.....	105 KIAS
2200Lbs.....	98 KIAS
1900Lbs.....	90 KIAS
V _{no}	129 KIAS
V _{ne}	163 KIAS

Starting Engine

.....Mixture
 e..... IDLE CUT-OFF
 Thrott
 e..... OPEN ¼ to ½ INCH
 Beacon
 ON
 Standb
 y Battery Switch
 a. TEST - hold for 20 seconds, verify that green light does not go off
 b. ARM - Verify that PFD comes ON
 Engine
 Indicating System..... CHECK NO RED X's
 Bus E
 Volts..... 24 VOLTS MINIMUM
 Bus M
 Volts..... 1.5 VOLTS or LESS
 BATT
 S Amps..... VERIFY DISCHARGE
 Standb
 y Battery Annunciator..... VERIFY ON
 Master
 Switch (Battery Only)..... ON
 Aux.
 Fuel Pump..... ON
 Mixture
 e..... FULL RICH
 UNTIL FUEL PRESSURE RISES



.....Mixture
 e..... IDLE CUT-OFF
 Aux.
 Fuel Pump..... OFF
 Propeller
 er Area..... CLEAR
 Ignition
 n..... ENGAGE
*Do not crank more than 10 seconds/Allow 20 seconds to cool**
 Mixture
 e..... WHEN ENGINE STARTS FULL RICH
 Throttle
 e..... 1000 RPM
 Oil
 Pressure..... INDICATING GREEN
 Mixture
 e..... LEAN for TAXI
 Alternator
 tor..... ON

Continued on next page...

..... Ammeter
 er..... CHECK
 Flaps
 RETRACT
 Navigation
 tion Lights..... AS REQUIRED
 Avionics
 cs Master Switch..... ON



.....Transp
onderSTANDBY/1200
.....Headin
g IndicatorCROSS-CHECK
.....ASOS/
ATIS.....OBTAIN
.....Altime
terSET
.....Adviso
ry/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.....VERIFY NONE
12. Throttle..... CHECK IDLE
13. Throttle.....1000 RPM
14. Throttle Friction Lock..... ADJUST
15. Communication/Navigation Radios SET
16. CDI Soft-key SET DESIRED SOURCE
17. Flight Instruments SET and CHECKED
18. Fuel Quantities CHECKED
19. TrimTEST/SET for TAKEOFF
20. Autopilot TEST/OFF
21. Flaps..... SET for TAKEOFF
22. Cabin Doors & Windows..... CLOSED and LATCHED
23. SeatsADJUSTED/ LOCKED
24. Departure BriefingCLEARANCE / 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 FlapsRETRACT 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. PowerSET 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. TransponderSTANDBY
6. Taxi Clearance / AdvisoryCONTACT

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 SelectorLEFT/RIGHT
10. Control LockINSTALL
11. Flight Information..... RECORD
12. Standby Battery..... OFF
13. Pitot Tube Cover.....INSTALL
14. Wheel Chocks & Tie Downs SECURE
15. Post Flight Walk-Around..... COMPLETE
16. Doors..... LOCKED

ABNORMAL PROCEDURES

Flooded Start

1. Mixture..... IDLE CUT-OFF
2. Throttle..... OPEN ¼ to ½ INCH
3. Beacon..... ON
4. Standby Battery Switch
 - a. TEST - hold for 20 seconds, verify that green light does not go off
 - b. ARM - Verify that PFD comes ON
5. Engine Indicating System CHECK NO RED X's
6. Bus E Volts24 VOLTS MINIMUM
7. Bus M Volts 1.5 VOLTS or LESS
8. BATT S Amps VERIFY DISCHARGE
9. Standby Battery Annunciator..... VERIFY ON
10. Master Switch (Battery Only)..... ON
11. Aux. Fuel Pump OFF

Proceed with Item 15 from “Starting Engine” checklist page 7

Ammeter Shows Excessive Rate Of Charge

1. AlternatorOFF
2. Nonessential Electrical EquipmentOFF
3. Flight.....LAND AS SOON AS PRACTICAL

Low Voltage Annunciator (Volts) Illuminates In Flight

1. Master Switch (Alternator Only)OFF
2. Alternator Circuit Breaker CHECK IN
3. Master Switch (Battery and Alternator)..... ON
4. LOW VOLTS Annunciator..... CHECK OFF
5. M BUS Volts..... 27.5V MINIMUM
6. M BATT Amps CHECK CHARGING
7. Master Switch (Alternator Only)OFF
8. Avionics Bus 1OFF
9. Pitot HeatOFF
10. All LightsOFF
11. Cabin Power 12VOFF
12. Comm 1 and Nav 1 SELECT
13. Avionics Bus 2.....OFF
14. Flight..... TERMINATE

Landing With A Flat Main Tire

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

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 SwitchOFF**
5. **FlapsAS REQUIRED**
6. **Master Switch.....OFF**
7. **Standby BatteryOFF**
8. **Cabin DoorUNLATCH**
9. **LandSTRAIGHT AHEAD**

Engine Failure / Power Loss During Flight

1. Airspeed68 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. Airspeed68 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. Standby Battery..... OFF
10. Doors..... UNLATCH
11. Touchdown SLIGHTLY TAIL LOW
12. 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. Standby Battery..... OFF
10. Doors..... UNLATCH
11. Touchdown SLIGHTLY TAIL LOW
12. Ignition Switch..... OFF
13. Brakes APPLY AS NECESSARY

Fire During Engine Start

1. Cranking.....CONTINUE

If Engine Starts:

2. Power 1800 RPM
3. EngineSHUTDOWN

If Engine Fails to Start:

2. ThrottleFULL 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 SwitchOFF
9. Fire ExtinguisherOBTAIN

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. Standby BatteryOFF
2. Master Switch.....OFF
3. Vents, Cabin Heat and Air..... CLOSED
4. Fire Extinguisher ACTIVATE
5. Avionics Master Switch OFF
6. All Electrical Switches (except ignition) OFF

If Fire Appears Out

7. Vents/Cabin Air/Heat..... OPEN
8. Master Switch ON
9. Standby Battery..... ARM
10. Circuit BreakersCHECK (do not reset)
11. Avionics Master Switch (BUS 1) ON
12. Avionics Master Switch (BUS 2)ON

Cabin Fire

1. Standby BatteryOFF
2. Master Switch.....OFF
3. Vents, Cabin Heat and Air..... CLOSED
4. Fire Extinguisher (if available)..... ACTIVATE
5. Forced Landing..... EXECUTE

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

Wing Fire

1. Landing/Taxi Light SwitchOFF
2. Navigation Light SwitchOFF
3. Strobe Light SwitchOFF
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