

Cessna 172S

N438ER

Preflight Inspection Cockpit

Aircraft Docs (AROW)	Check
Weight & Balance	Check
Control Wheel Lock	Remove
Hobbs Meter	Check
Ignition Switch	Off
Avionics Power Switch	Off
Master Switch	On
Fuel Quantity Indicators	Check
Lights	On/Check
Pitot Heat (if using)	On/Check
Lights (except beacon)	Off
Pitot Heat	Off
Flaps	Extend
Annunciator Panel	Test
Master Switch	Off
Alternate Static Source	Off
Fuel Selector	Both
Fuel Shutoff Valve	On

Fuselage & Empennage

Baggage Door	Closed
Horizontal Stabilizer	Check
Elevator	Check
Trim Tab	Check
Vertical Stabilizer	Check
Rudder	Check
Tail Tie Down	Remove
Antennas	Check

Right Wing

Flap	Check
Aileron	Check
Wing Tip	Check
Leading Edge	Check
Wing Tie Down	Remove
Main Tire/Brake	Check
Fuel Sumps (5)	Sample
Fuel Quantity	Check
Fuel Cap	Secure

Nose

Engine Oil Level	Check
Fuel Sumps (3)	Sample
Propeller/Spinner	Check
Exhaust Pipe	Check
Alternator Belt	Check
Air Inlets	Check
Air Filter	Check
Nose Wheel/Strut	Check
Static Source	Open

Left Wing

Fuel Sumps (5)	Sample
Fuel Quantity	Check
Fuel Cap	Secure
Pitot Tube	Open
Fuel Vent	Open
Stall Warning	Open
Wing Tie Down	Remove
Leading Edge	Check
Wing Tip	Check
Aileron	Check
Flap	Check
Main Wheel/Brake	Check

Before Engine Start

Preflight	Complete
Passenger Brief	Complete
Seats/Belts	Adjust/Lock
Doors	Closed/Locked
Brakes	Test/Set
Circuit Breakers	Check In
Lights/Electrical	Off
Avionics Master	Off
Fuel Selector	Both
Fuel Shutoff	On

Starting Engine

Throttle	1/4 Inch
Mixture	Idle Cut Off
Propeller Area	Clear
Master Switch	On
Beacon	On

****IF ENGINE WARM DO NOT PRIME****

Starting Engine Cold

Prime Procedure

Aux. Pump on 2-3 seconds & Mixture	Rich until fuel flow indication, then
Mixture	Idle Cut Off
Auxiliary Pump	Off
Ignition	Start
Mixture	RICH
Throttle	1000 RPM
Oil Pressure	Check
Ammeter	Positive
Avionics Master	On
Radios	Set
Flaps	Retract
Mixture	Lean
Heading Indicator	Set
Weather/ATIS	Obtain
Altimeter	Set

Before Takeoff

Brakes	Set/Check
Doors/Windows	Closed/Locked
Seats/Belts	Adjust/Lock
Flight Controls	Free/Correct
Fuel Selector	Both
Fuel Quantity	Check
Mixture	RICH
Flight Instruments	Set
Elevator Trim	Set/Takeoff
Throttle	1800 RPM
Magnetos	Check 150/50
Vacuum Gauge	Check
Engine Instruments	Check
Ammeter	Positive
Throttle	Idle Check
Throttle	1000 RPM
Friction Lock	Adjust/Lock
Radios/Avionics	Set
Flaps	Set 0° - 10°
Lights	As Required
Transponder	Set/Altitude
NAV/GPS Switch	Set
Annunciator Panel	Clear
Brakes	Release

Normal Takeoff

Flaps	Set 0° - 10°
Mixture	RICH
Throttle	Full Open
Elevator Trim	Rotate 55 kts
Climb Speed	70-80 kts
Flaps	Retract

Enroute Climb

Airspeed	70-85 kts
Throttle	Full Open
Mixture	Rich

Cruise

Power	As Required
Mixture	Lean
Trim	As Required
Lights	As Required

Descent

Weather/ATIS	Obtain
Altimeter	Set
Fuel Selector	Both
Power	As Required
Mixture	Rich
Lights	As Required
Radios/Avionics	Set

Before Landing

Seats/Seat Belts	Adjust/Lock
Fuel Selector	Both
Mixture	Rich

Normal Landing

Flaps	As Required
Approach Speed	65-75 Flaps Up 60-70 Flaps Dn
Brakes	As Required

After Landing

Flaps	Up
Lights	As Required

Secure Aircraft

Lights	Off
Avionics Master	Off
Mixture	Idle Cut Off
Ignition	Off
Master	Off

Control Lock **Install**
Hobbs **Record**
Doors/Windows **Closed/Locked**
Tie Downs **Secure**
Short Field Takeoff
Flaps **10°**
Taxi **Max Runway**
Brakes **Apply**
Throttle **Full Open**
Brakes **Release**
Lift Off **51 KIAS**
Climb Speed **56 KIAS**
Flaps **Retract**
Short Field Landing
Flaps **30°**
Speed Over Obstacle **61 KIAS**
Power **Reduce**
Touchdown **Mains First**
Brakes **Apply**
Flaps **Retract**
Balked Landing
Throttle **Full Open**
Flaps **Retract to 20°**
Climb Speed **60 KIAS**
Flaps **Retract**
Engine Failure Takeoff Roll
Throttle **Idle**
Brakes **Apply**
Flaps **Retract**
Mixture **Idle Cut Off**
Ignition Switch **Off**
Master Switch **Off**
Engine Failure After Takeoff
Airspeed **70 kts (Flaps Up)**
65 kts (Flaps Dn)
Mixture **Idle Cut Off**
Fuel Shutoff Valve **Off**
Ignition **Off**
Flaps **As Required**
Master Switch **Off**

Cabin Doors **Unlatch**
Land **Straight Ahead**
Engine Failure Flight
Airspeed **68 KIAS**
Fuel Shutoff Valve **On**
Fuel Selector **Both**
Aux Fuel Pump **On**
Mixture **Rich**
Ignition **Both**
Ignition To Start If Prop Is Stopped
Aux Fuel Pump **Off**
Forced Landing No Power
Seats/Belts **Adjust/Lock**
Airspeed **70 kts-Flaps Up**
65 kts-Flaps Dn
Mixture **Idle Cut Off**
Fuel Shutoff Valve **Off**
Ignition Switch **Off**
Flaps **As Required**
Master Switch **Off**
Doors **Unlatch**
Touchdown **Tail Low**
Brakes **As Needed**
Engine Fire On Ground
Ignition **Cont. Cranking**
If Engine Starts
Power **1800 RPM**
After A Few Minutes
Engine **Shut Down**
If Engine Fails to Start
Throttle **Full Open**
Mixture **Idle Cut Off**
Cranking **Continue**
Fuel Shutoff Valve **Off**
Aux Fuel Pump **Off**
Fire Extinguisher **Activate**
Master Switch **Off**
Ignition Switch **Off**
Airplane **Evacuate**
Fire Extinguisher **Activate**

Engine Fire During Flight
Mixture **Idle Cut Off**
Fuel Selector Valve **Off**
Aux Fuel Pump **Off**
Master Switch **Off**
Cabin Heat/Vents **Off**
Airspeed 100 kts or > to Extinguish Fire
Forced Landing Execute
Electrical Fire in Flight
Master Switch **Off**
Cabin Heat/Vents **Closed**
Fire Extinguisher **Activate**
Ventilate Cabin When Fire Is Out
Avionics Switch **Off**
All Other Switches **Off**
IF FIRE OUT
Master Switch **On**
Circuit Breakers **Check**
Do Not Reset Faulted Breakers
Radio Switches **Off**
Avionics Switch **On**
Radios/Electrical **On**
Turn On Switches One At A Time
Until the Short Circuit Is Localized
Low Voltage In Flight
Avionics Switch **Off**
Alternator Breaker **Check**
Master Switch **Off (Alternator Side Only)**
Master Switch **On**
Low Voltage Annunciator **Check Off**
Avionics Switch **On**
If Low Voltage Illuminates Again:
Alternator **Off**
Electrical Load **Reduce**
Terminate Flight When Practical
Ammeter Shows Excessive Rate of Chg
Alternator **Off**
Nonessential
Electrical Equip **Off**
Terminate Flight When Practical

V Speeds (KIAS)	
Vg	68
Vr	55
Vs	48
Vso	40
Vx (Sea Level)	62
Vx (10,000 Ft)	67
Vy (Sea Level)	74
Vy (10,000 Ft)	72
Vfe	
10°	110
20°-30°	85
Va	
2550	105
2200	98
1900	90
Vno	129
Vne	163