Normal Checklist – Cessna 172S G1000

INITIAL

Weather & Den. Alt.
Wt & Bal / Perf Req.
Papers – A.R.O.W.
Fuel Valve – On / Both
Control Lock
Master – On
PFD – Verify On
Flaps – Extend
Low Fuel Lights- Off
Fuel Gauges – True
Annunciator – Verify

Avionics:
Bus 1- On (Check Fan)
Bus 1 Off, 2 On (Check Fan)
Bus 2- Off

Stall Ind./Pitot Heat
Lights – Int. / Ext.
Master – Off

EXTERIOR SUMMARY
After Geographical Check

Fuel Quantity
Fuel Quality
Caps / Drains / Vents
Engine / Oil
Prop / Air Intake
Exhaust System
Surfaces & Controls
Pitot & Static Ports
Gear / Tires / Brakes
Antennas / Stall Ind
Ties / Chocks
Baggage Door
Final Walk Around

INTERIOR

Passenger Brief
Hobbs / Tach Time
Circuit Breakers
Brakes – Pedal Test

START

Seat Track/Back – Lock
Avionics Bus 1&2 – Off
AP / Alt. Static – Off
Throttle – ¼"
Mixture – Full Lean
STBY BATT – Test / Arm
(Verify PFD Comes On)
Engine Indicating Sys.
Bus E VOLTS - 24 MIN
M BUS VOLTS -1.5 OR LESS
BATT S AMPS - DISCHARGE
STBY BATT - Verify On
Prop – Clear
Master – On
Beacon – On
Fuel Pump - On [(1)]
Mixture-Rich (Prime)
(3-5 Seconds)
Mixture – Full Lean
Fuel Pump-Off
Mags – Start
Mixture – Rich
Oil Pressure
AMPS (M & S BATT)
Annunciator
Lights – As Req.
Mixture – As Req.
Avionics (Bus 1&2) - On

PRE-TAXI / TAXI

Seat Belts / Harness
Flaps – Up
Heat / Vent / Defrost
ATIS / AWOS
Altimeter – Set
Transpond – Set
Taxi Light – As Req.
Brakes – Test
Attitude Indic. – Test
Turn Coord. – Test
H.S.I./Compass – Test

RUN-UP

Brakes – Set
Fuel Valve – Both
Trim – Takeoff
Flight Controls
Instruments - No Red X's

Altimeters:
PFD (Baro) - Set
Standby Alt. - Set
KAP 140 AP - Set

G1000 Alt. SEL - Set
KAP 140 Alt. Preselect - Set
Standby Instruments
Mixture – Best Power

MET System – Test
(Manual Electric Trim)
1800 RPM
Mags (R & L) – Test
VAC Indicator
Engine Indicators
Amps / Volts
Annunciators
Idle – (575-675) Ck
Mixture– Lean to Ck
(10 Min - 50 Max RPM Rise)
Throttle Friction
COM/NAV - Set

FMS/GPS
(Verify GPS2 Available on AUX-GPS Status Page)

CDI Softkey - Nav Source

PRE-TAKEOFF

Flaps – 0°- 10°
Mixture – Best Power
Pitot Heat – As Req.
H.S.I. To Compass
Doors / Windows
Transp – Alt + Sqwk
Landing Light – On
Strobes – On
Time – Note
Brakes – Release

Abort Plan - Ready!

TAKEOFF

Full Throttle
(2300-2400 RPM)
Oil Pressure
Rotate * **55** (63)
Vy – **74** (85)
Flaps – Up

CLIMB

70-85 *(81-98)*
Throttle – Full
Mixture -Lean >3K
Instruments
Taxi / Land Light – Off
Flight Plan – Open

CRUISE

Power
Mixture
Instruments
H.S.I. To Compass

FMS/GPS – Review
Brief OBS/SUSP
Softkey Ops For
Holding Pattern
Procedure (IFR)

DESCENT

Power – As Req.
Mixture – Richen
Fuel Valve – Both
ATIS / AWOS

Altimeters:
PFD (Baro) - Set
Standby Alt. - Set
KAP 140 AP - Set

G1000 Alt. SEL - Set
KAP 140 Alt. Preselect - Set
Instruments
H.S.I. To Compass
CDI Softkey - Nav Source

FMS / GPS – Review
Brief OBS/SUSP
Softkey Ops For
Holding Pattern
Procedure (IFR)

PRE-LANDING

Landing Light – On
Autopilot – Off
Seat Belts / Harness
Mixture – Best Power
Fuel Valve – Both
Flaps – As Req.

LANDING

Flaps – Full *Or As Req.*
Speed * **65** (75)

G. U. M. P. F. S.

GO AROUND
Power – Full
Flaps – 20°
Climb – 60 (69)
Flaps – 10° Until Clear
>65 – Retract Slowly

AFTER LANDING

Flaps – Up
Strobes – Off
Landing Light – Off
Taxi Light – As Req.
Pitot Heat – Off
Mixture – As Req.
Trim – Takeoff
Transpond – STBY

SECURING

ELT – Verify Silent
Electrical – Off
Avionics – Off
Mixture – Full Lean
Mags – Off
Hobbs / Tach Time
Lights – Off
Master – Off
STBY BATT – Off
Fuel – Left or Right
Control Lock
Chocks
Tie Downs
Pitot Cover
Baggage Door
Cabin Doors

Close Flight Plan

* *Adjust Speed
As Needed For
Conditions*

X Wind • Max Demo'd – 15 (17)	Vs₀ • Stall with flaps – 40 (46)	Va • Max Abrupt Ctrl (1900 lbs) – 90 (104)	Vfe • 10° Flaps – 110 (127)
Vr • Rotation Speed – 55 (63)	Vs • Stall w/o flaps – 48 (55)	Va • Max Abrupt (Full Gross) – 105 (121)	Vfe • Full Flaps – 85 (98)
Vx • Best Angle Climb – 62 (71)	Best Glide (1900 lbs) – 59 (68)	Vno • Max Structural Cruise – 129 (148)	Chandelles/Lazy Eights – 105 (121)
Vy • Best Rate Climb – 74 (85)	Best Glide (Full Gross) – 68 (78)	Vne • Never Exceed – 163 (187)	Steep Turns – 95 (109)

	KNOTS (MPH)	FLAPS °	– NOTES –
DEPARTURE			[(1)] Hot Start - Do not prime
Rotation *	**55** (63)	0	Short Field: 10° Flaps -56 (64) Until Clear
Best Angle Climb	**62** (71)	0	Soft Field: 10° Flaps
Best Rate Climb	**74** (85)	0	
CRUISE (TAS -8,000')			
Economy	**106** (122)	0	2400 RPM – 7.8 GPH – 54%
Normal	**112** (129)	0	2500 RPM – 8.6 GPH – 61%
Maximum	**119** (137)	0	2600 RPM – 9.4 GPH – 68%
ARRIVAL			
Approach	**75** (86)	10-20	1700 RPM (Initially)
Short Final *	**65** (75)	30	Idle-1200 RPM

Emergency Checklist – Cessna 172S G1000

POWER LOSS IMMEDIATELY AFTER TAKEOFF / NO RESTART

MAINTAIN AIRCRAFT CONTROL
AIRSPEED – 70 KIAS (81 MPH)(Gross Weight / Flaps UP)
FUEL SELECTOR – OFF   (Pull Full Out)
MIXTURE – FULL LEAN / IDLE CUTOFF
FLAPS – DOWN   65 KIAS (75 MPH)
MASTER & MAGS – OFF   (Unlatch Doors)

POWER LOSS IN FLIGHT

BEST GLIDE – 68 KIAS (78 MPH)   (Full Gross Weight)
NOTE WIND DIRECTION & VELOCITY
PICK LANDING SITE
FUEL SHUTOFF VALVE – ON   (Push Full In)
AUX FUEL PUMP – ON
MIXTURE – FULL RICH   (To Restart, Lean As Req)
FUEL SELECTOR – CHECK / BOTH   (Note Gauges)
MAGNETOS – CHECK ALL   (Start If Prop Stopped)
AUX FUEL PUMP – OFF

IF NO RESTART & TIME PERMITS

MAINTAIN BEST GLIDE
SQUAWK 7700
DECLARE EMERGENCY   (TWR, APP, Unicom, 121.5)
FUEL SHUTOFF VALVE – OFF   (Pull Full Out)
MIXTURE – FULL LEAN / IDLE CUTOFF
SEATBELTS / HARNESS
FLAPS – AS NEEDED (Full Flaps Recommended For Landing)
MASTER & MAGS – OFF   65 KIAS (75 MPH)
UNLATCH DOORS
PROTECT BODY

ELECTRICAL FIRE IN FLIGHT

ALL ELECTRICAL DEVICES + MASTER – OFF   (Mags On)
CLOSE VENTS, CABIN HEAT, & AIR   (Fire Extinguisher)
AVIONICS MASTER – OFF
IF FIRE OUT – MASTER ON ONLY IF CRITICAL   (Vents – Open)
THEN ONE ESSENTIAL ELECTRICAL DEVICE AT A TIME
RESET CIRCUIT BREAKER(S) ONLY IF CRITICAL

ENGINE FIRE IN FLIGHT

MIXTURE – FULL LEAN / IDLE CUTOFF
FUEL SHUTOFF VALVE – OFF   (Pull Full Out)
AUX FUEL PUMP – OFF
MASTER – OFF   (Standby BATT - Off)
CABIN HEAT & AIR – OFF   (Except Overhead Vents)
AIRSPEED 100 KIAS OR HIGHER TO EXTINGUISH – LAND ASAP

ENGINE FIRE DURING START

CONTINUE CRANKING ENGINE
IF START – 1800 RPM A FEW MINUTES - SHUTDOWN - INSPECT
IF NO START – MIXTURE IDLE CUTOFF & FUEL VALVE OFF
THROTTLE FULL OPEN
CONTINUE CRANKING ENGINE A FEW SECONDS
MASTER & MAGS – OFF
EVACUATE / FIRE EXTINGUISHER

AIR DATA SYSTEM & AHRS FAILURE

RED X-PFD AIRSPEED INDICATOR: ADC/AHRS CBs-Check In
(ESS BUS & AVN BUS 1). If Open, Reset. If Opens Again, Do Not Reset
RED X-PFD ALTITUDE INDICATOR: Same As Above Except
Use Standby Altimeter. (Ck & Set Barometric Pressure)
RED X-PFD ATTITUDE INDICATOR: Same As Above Except
Use Standby Attitude Indicator.
RED X-HORIZONTAL SITUATION INDICATOR (HSI):
ADC/AHRS CBs-Check In (ESS BUS & AVN BUS 1). If Open, Reset. If
Opens Again, Do Not Reset. Use Non-Stabilized Mag Compass For
Heading Information.

ELECTRICAL POWER MALFUNCTIONS

HIGH MAIN BATT CHARGE CURRENT (OVER 40 AMPS):
MASTER (ALT) – Off, Nonessential Electric – Off, Avionics Bus 1
& 2 - Off Terminate Flight A.S.A.P.

LOW VOLTAGE: Avionics Bus 1 & 2 – Off, ALT C.B. - In, Master – Off,
then, Master – On, Ck. Volt Lt. Off, M BUS VOLTS - 27.5 V Min.,
M BATT AMPS - Check Charging, Avionics Bus 1 & 2 – On.

If Illuminates Again: ALT & Non-Essential Avionics & Electric – Off
(Pull CBs On Avionics), Terminate Flight A.S.A.P.

RADIO OUT: Check Circuit Breakers & VOLUME
               Recycle Alternator Switch
               If IFR & Still Out, Set Transponder At 7600.
               (Suggested For VFR If In B, C, D Airspace.)

TOWER SIGNALS	ON GROUND	IN FLIGHT
Steady Green	Cleared For Takeoff	Cleared To Land
Flashing Green	Cleared To Taxi	Return For Landing
Steady Red	Stop	Yield & Continue Circling
Flashing Red	Taxi Clear of Landing Area	Airport Unsafe - Do Not Land
Flashing White	Return To Starting Point	N/A
Alternating Red & Green	Use Extreme Caution	Use Extreme Caution

* *Every Plane Has A Different Empty Weight And Useful Load*
   Cessna 172 S/SP G1000 (Lycoming: IO-360-L2A, 180HP)

* Empty Weight: [____] LBS (Specific Plane Weight)
* Max. Useful Load: [____] LBS (Including Fuel @ 6 lbs/gal)
  Max. Baggage Area: 120 LBS (Included In Useful Load)
  Max. T.O. Weight: 2550 LBS Utility T.O. Wt: 2200 LBS
  Ramp Weight: 2558 LBS

Fuel Type: 100 LL (Blue) / 100 (Green)
Usable Fuel: 53 Gallons
Oil Capacity: 8 Quarts (Minimum 5)
Electrical: 24-28 VOLT / 60 AMP
Tire Pressure: Nose - 45 PSI / Main - 38 PSI