



**CESSNA 172S G1000
CESSNA SKYHAWK
NORMAL CHECKLIST**

AIRCRAFT ACCEPTANCE

NOTAMS Check
Weather Check
Navigation Check
Weight & Balance Check
Performance Calculations Check
Inspection Status Check
Maintenance Status Check
Emergency & Safety Equipment (if applicable) Check
S.P.A.R.(R.)O.W. Check
Tachometer Recorded
Hobbs Meter Recorded
AIRCRAFT ACCEPTANCE CHECKLIST.....COMPLETE

PREFLIGHT INSPECTION – CABIN

Documents Check
POH Available
G1000 Cockpit Reference guide Available
Control Wheel Lock Remove
Magneto Switch Off
Avionics Switch (Bus 1 and 2) Off
Circuit Breakers Verify (In)
Master Switch On
Flaps Extend/30°
Primary Flight Display (PFD) Check/On
Hobbs/Tach Time Record

Cont.

PREFLIGHT INSPECTION – CABIN Cont.

Exterior Lights On/Check
 Pitot Heat On/Check
 Exterior Lights Off
 Pitot Heat Off
 Fuel Quantity (L and R)..... Check
 Low Fuel L and Low Fuel R Annunciators Check
 (Verify annunciators are **NOT** shown on PFD)
 Oil Pressure Annunciator Check
 (Verify annunciator is shown)
 Low Vacuum Annunciator Check PFD
 (Ensure annunciator is shown)
 Avionics Switch (Bus 1)..... On
 Forward Avionics Fan Check/On
 Avionics Switch (Bus 1)..... Off
 Avionics Switch (Bus 2)..... On
 Aft Avionics Fan Check/On
 Avionics Switch (Bus 2)..... Off
 Low Volts Annunciator Check PFD
 (Verify annunciator is shown)
 Master Switch (ALT and BAT)..... Off
 Parking Brake..... Release
 Flight Controls Free/Correct
 Fire Extinguisher Check/Secured
 Fuel Selector Valve Check/Both
 Fuel Shutoff Valve On (In Fully)
 Elevator Trim Check/ Set Takeoff
 Alternate Static source Check/Off (In Fully)
 Mixture Control Idle Cut-Off
 Throttle Closed
 Avionics Master Switch Off
 Electrical Switches Off
 Beacon Light On
 Ignition Switch Off
 ELT Switch Armed

 Cont.

PREFLIGHT INSPECTION – CABIN Cont.

Right Fuel Tank Quantity Check
Engine Oil Quantity Check
Left Fuel Tank Quantity Check
Windows Clean All
PFD/MFD Clean
CABIN CHECKLIST COMPLETE

CALL FOR SERVICE IF REQUIRED

**PREFLIGHT INSPECTION – AFT FUSELAGE AND
EMPENNAGE**

Baggage Door (Lock with Key) Closed/LOCKED
Autopilot Static Source (if installed) Check
Horizontal Stab. /Elevator Inspect
Elevator Trim Tab Inspect
Vertical Stab. /Rudder Inspect
Static Wicks (6) Inspect
Tie-Down Remove/Secure
Tail-Scrape Inspect
Antennas Inspect
AFT FUSE. AND EMPENNAGE CHECKLIST .. COMPLETE

PREFLIGHT INSPECTION – RIGHT-WING

Flap (security and condition) Inspect
 Aileron (freedom of movement and security) Inspect
 Static Wicks (2) Inspect
 Wingtip Inspect
 Landing/Taxi Light(s)..... Inspect
 Leading Edge Inspect
 Tie-Down Remove/Secure
 Chocks Remove/Secure
 Main Gear Inspect
 RT. Fuel Sump (5)..... Drain/Inspect
 Fuel Quantity Verify (Check)
 Fuel Filler Cap and VENT Secure/Inspect
 Overhead Cabin Vent Inlets Clear
RIGHT-WING CHECKLIST COMPLETE

PREFLIGHT INSPECTION – FORWARD FUSELAGE

Cabin Air Inlet..... Clear
 Oil Quantity Verify (Check)
 Dipstick/Filler Cap..... Secure
 Engine Cowling Inspect
 Exhaust Stack Check
 Reservoir, Strainer, Fuel Selector (3)..... Drain/Inspect
 Propeller/Spinner Inspect
 Induction Inlet/Air Filter Inspect
 Alternator Belt Inspect
 Nose Gear..... Inspect
 Left Static Source Check
FORWARD FUSELAGE CHECKLIST COMPLETE

PREFLIGHT INSPECTION – LEFT-WING

LT. Fuel Sump Drains (5).....	Drain/Inspected
Fuel Quantity	Verify (Check)
Fuel Filler Cap and VENT	Secure/Inspect
Leading Edge	Inspect
Overhead Cabin Vent Inlets	Clear
Pitot tube	Inspect
Fuel Vent.....	Clear
Stall-Warning.....	Clear
Landing/Taxi Lights	Check
Wingtip/Lights.....	Inspect
Aileron/Flap	Inspect
Static Wicks (2)	Inspect
Tie-Down.....	Remove/Secure
Chocks	Remove/Secure
Main Gear	Inspect
LEFT-WING CHECKLIST.....	COMPLETE
360° WALK-AROUND	COMPLETE

BEFORE START*Flow*

Passenger/Crew Brief (see next page) Complete
 Seats and Seatbelts/Harness Adjust/Lock
 Airport Diagram Review/Keep Available
 Fuel Selector Valve Both
 Fuel Shutoff Valve On (In Fully)
 Mixture Control Idle Cut-Off
 Throttle Open 1/4"
 STBY BATT Switch Test
 (Hold for 10 seconds, verify green test lamp does **NOT** go
 out), then **ARM** (Verify PFD comes on)

In the event the Standby Battery fails the initial test: continue with
 checklist to start the engine (alternator will charge the Standby Battery).
 Complete the Run-Up checklist and turn off the Master Switch to OFF
 position and check the Standby Battery's essential bus voltage. An
 indication of 24 volts or higher ensures that the Standby Battery is within
 the operational limits. Turn ON the master switch and proceed further.

Engine Indicating System Check (No red X's)
 BUS E Volts (verify 24 volts minimum) Check
 M BUS Volts (verify 1.5 volts or less) Check
 BATT S AMPS (Verify discharge [-]) Check
 STBY BATT Annunciator Verify (On)
 Panel Lights As Required
 Beacon Light Verify (On)
 Circuit Breakers Verify (In)
 Parking Brake Release

BEFORE START CHECKLIST COMPLETE

Complete the passenger and crew briefing as appropriate:

PASSENGER BRIEFING

- **S**eatbelts (Operation)
- **A**ir Vents
(Location/Operation)
- **F**ire Extinguisher (Location
and operation)
- **E**xit Points (Location)
- **S**urvival Kit (Location)
- **T**raffic Watch (Clock
Reference/Notification)

CREW BRIEFING

- Call Sign & Tail Number
- ATIS/AWOS/FSS
- Airport Diagram
- Runway(s) in use
- Crosswind Component
- Expected
Departure/Taxi
Clearance
- Takeoff/Accelerate Stop
Distance
- NOTAMS
- Engine Fire During Start
- V_A
- Who is the P-I-C?
- Positive Exchange of
Flight Controls
- Sterile Cockpit
- Safe Attitude

PASSENGER/CREW BRIEFING.....COMPLETE

ENGINE START*Flow*

Master Switch.....	On
Beacon Light	On
Prime (if necessary)	Complete
Prop Area	Clear
(Announce loud and clear: " <i>Clear Prop</i> ")	
Starter	Engage
Mixture Control	Full Forward (Full Rich)
Throttle	1200 RPM
Oil Pressure	Check
(Green Arc in no more than 60 seconds)	
AMPS (M BATT and BATT S).....	Check Charging
Low Volts Annunciator	Check
Mixture	Lean
Throttle	1000 RPM
Avionics Master Switch (Bus 1 and 2)	On
ENGINE START CHECKLIST..... COMPLETE	

BEFORE TAXI*Flow*

Instrument Cockpit Check (see next page)	Complete
Transponder.....	On/ALT
Flaps	Retract/0°
Parking Brake.....	Release
BEFORE TAXI CHECKLIST COMPLETE	

Instrument Cockpit Check

1. Magnetic Compass
 2. PFD
 - No Red X
 - Nav 1 & 2
(if applicable)
 - Com 1 & 2
 - Airspeed Indicator
 - Attitude Indicator
 - Altimeter
 - Heading Indicator
 - Transponder
 - Timer (if applicable)

3. MFD
 - No Red X
 - Engine
 - Fuel (Reset if applicable)
 - FPL Page (Set Up if applicable)
 - AUX Page
 - GPS Status Page
(if applicable)
 - Set Up Page
(if applicable)
 - System Page
 4. Standby Flight Instruments
 5. Autopilot (if applicable)

TAXI

Flow

Brakes	Check
Nose wheel Steering	Check
Magnetic Compass	Turns freely
Heading Indicator	Check
Turn Coordinator	Check
Slip/Skid Indicator	Check

TAXI CHECKLIST COMPLETE

BEFORE TAKEOFF “RUN-UP”*Flow*

Parking Brake.....	Verify/Release
Flight Controls	Free/Correct
Manual/Electric Trim	Check/Set Takeoff
Windows.....	Close
Fuel Selector Valve	Both
Mixture Control.....	Full Forward
Oil Temperature	Verify (Green)
Throttle	1800 RPM
Magnetos (175/50).....	Check/Both
Engine Instruments/Annunciators	Check
Throttle	Idle (650 RPM) /1000 RPM
Mixture	Lean

BEFORE TAKEOFF “RUN-UP” CHECKLIST....COMPLETE**NOTE**

After checking one magneto, do not check the other magneto until the engine returns to 1800 RPM. Keep engine operation on one magneto to a minimum. Ensure that the key is in the “both” position after the magneto check.

If a fouled spark plug is suspected:

- 1) Smoothly advance the throttle to 2100 RPM,
- 2) Lean the mixture to peak EGT for 50 seconds;
- 3) Enrichen the mixture to FULL RICH,
- 4) Smoothly reduce the throttle to set 1800 RPM; then,
- 5) Proceed with the magneto check.

BEFORE TAKEOFF*Flow*

Pre-Takeoff Briefing	Complete
Elevator Trim	Verify/ Set Takeoff
Flaps	Set/Verify
Avionics	Set/Check
Flight Instruments.....	Set/Check
STBY Flight Instruments	Check
Fuel Quantity	Check/Verify
Fuel Selector Valve	Both
Autopilot (if installed).....	Off
Pilot and Passenger Seatbacks	Upright
Seats and Seatbelts/Harness.....	Check/Secure
Cabin Doors/Windows.....	Close/Lock
Cabin Power 12V (if Installed).....	Off
Pitot Heat	Off (On)
Auxiliary Fuel Pump	Off
Parking Brake.....	Release
Transponder.....	ALT
Traffic	Check
BEFORE TAKEOFF CHECKLIST..... COMPLETE	

Pre-Takeoff Briefing

- Runway in Use
- Runway Length
- Actual Wind Direction
- Wake Turbulence Potential
- Type of Take Off

In Case of Emergency:

- Engine Failure Before Lift Off
- Engine Failure After Lift Off
- Positive Exchange of Flight Controls
- Any Questions?

TAKEOFF FINAL ITEMS*Flow*

Fuel Selector Valve	Both
Fuel Shutoff Valve	On (In Fully)
Mixture Control	Rich (Full Forward)
Lights	On

TAKEOFF FINAL ITEMS CHECKLIST COMPLETE**CLIMB***Flow*

Flaps	Retract/0°
Airspeed	85 KIAS
Throttle	Full Forward
Elevator Trim	Adjust
Auxiliary Fuel Pump	Off
Transponder	Verify Mode
Mixture Control	Lean (above 3000' pressure altitude)
Landing and Taxi Lights	Off

CLIMB CHECKLIST COMPLETE**CRUISE***Flow*

Cruise Power	Set
Elevator Trim	Adjust
Mixture Control	Lean (above 3000' Pressure Altitude)
Engine Indicating Instruments	Check
Lights	As Required

CRUISE CHECKLIST COMPLETE

PRE-MANEUVER CHECKLIST

Fuel Selector Valve	BOTH
Fuel Shutoff Valve	IN
Mixture	RICH
ESP (if installed)	As Required
NAV / STROBE lights.....	ON
Landing/Recognition lights	ON
Ignition Switch	BOTH
Seatbelts	SECURED
Clearing Turns.....	COMPLETE
Position Report.....	COMPLETE

PRE-MANEUVER CHECKLIST COMPLETE

NOTE

To ensure proper aircraft configuration, this checklist must be performed prior to the start of any maneuver.

DESCENT

Flow

Approach Briefing.....	Complete
Fuel Selector Valve	Both
Mixture Control	Enrichen
Avionics.....	Set
Flight Instruments.....	Set
ESP (if installed).....	As Required
Autopilot (if installed).....	Off
Lights.....	On
Seatbelts/Harnesses	On
Pilot and Passenger Seatback	Upright
Cabin Power 12V (if Installed).....	Off

DESCENT CHECKLIST COMPLETE

Approach Briefing

- | | |
|--|--|
| <ul style="list-style-type: none"> • Name of Arrival Airport • ATIS/AWOS/ASOS • Altimeter Setting • Runway to be Used • Runway Length • Traffic Pattern Entry • Details Unique to the Airport/Approach • Terrain Obstacles | <ul style="list-style-type: none"> • Crosswind Component & Gust Factor (if applicable) • Runway Exit Plan • Parking Location • Expected Taxi Instructions • NOTAMs • Traffic Watch • Windshear and Braking Conditions |
|--|--|

DESCENT FINAL ITEMS*Flow*

Fuel Selector Valve	Both
Elevator Trim	As Required
Mixture Control	Rich (Full Forward)
Flaps	As Required
DESCENT FINAL ITEMS CHECKLIST COMPLETE	

AFTER LANDING*Flow*

Auxiliary Fuel Pump	Off
Lights	As Required
Transponder	ALT
Mixture Control	Lean
Flaps	0°/Retract
Elevator Trim	Check/Set Takeoff
Airport Diagram	Review/Keep Available
AFTER LANDING CHECKLIST COMPLETE	

SHUTDOWN*Flow*

Parking Brake	Release
Throttle	Idle
Avionics Switch	Off
Ignition grounding	Check
Mixture Control	Idle Cut-Off
Ignition Switch	Off
SHUTDOWN CHECKLIST COMPLETE	

SECURE

Lights..... Off (Beacon Light)
 Hobbs/Tach Time and Parking..... Record
 Master Switch..... Off
 STYB BATT Switch Off
 Control Wheel Lock..... Install
 Fuel Selector Valve Left
 Parking Brake..... Release
 Trash Remove
 Windows/Cabin Doors..... Close/Secure
 Tie-Downs Secure
SECURE CHECKLIST..... COMPLETE

POST-FLIGHT INSPECTION

Aft Fuselage and Empennage..... Inspect
 Tail Scrape Inspect
 Right-Wing Inspect
 Right Main Gear Check/Inspect
 Forward Fuselage Inspect
 Firewall..... Inspect
 Propeller/Spinner Inspect
 Nose Gear..... Check/Inspect
 Left-Wing Inspect
 Left Main Gear Check/Inspect
 Tie-Downs Verify/Secured
 Control Wheel Lock..... Verify/Installed
 Lights..... Off
 Master Switch..... Off
 Standby Batt Switch Off
 Windows/Cabin Doors..... Closed/Secured
POST-FLIGHT INSPECTION CHECKLIST..... COMPLETE

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EMERGENCY CHECKLIST

Procedures containing items within a Dashed Box require immediate action and must be committed to memory. Immediate action items will always appear first in the checklist.

Review the Cessna 172S G1000 Pilot Operating Handbook (POH) or Information Manual (IM), Section 3, including the Amplified section, to fully understand how and why to use the checklist.

ENGINE FAILURE DURING TAKEOFF ROLL**If sufficient runway remains for a complete stop:**

Directional Control..... Maintain
 Throttle Close Immediately
 Brake As Required

If insufficient runway remains for a complete stop:

Flaps Verify (Retract 0°)
 Mixture Control Idle Cut-Off
 Ignition Switch Off
 STBY BATT switch Off
 Master Switch Off

ENGINE FAILURE DURING TAKEOFF ROLL CHECKLIST
 **COMPLETE**

ENGINE FAIL IMMEDIATELY AFTER TAKEOFF

Airspeed 70 KIAS (Flaps Up)
 65 KIAS (Flaps Down)
 Throttle Closed Immediately
 Fuel Shutoff Valve Off (Pull OUT fully)
 Mixture Control Idle Cut-Off
 Flaps As Required
 Ignition Switch Off
 STBY BATT Switch Off
 Master Switch Off
 Cabin Doors Unlatch
 Land Straight Ahead

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF
CHECKLIST..... COMPLETE

ENGINE FAILURE DURING FLIGHT

Airspeed 68 KIAS
 Flaps 0°/UP
 Landing Site Select
 Fuel Selector Valve Verify Both
 Fuel Shutoff Valve On (In Fully)
 Mixture Control Full Forward
 Auxiliary Fuel Pump On
 Ignition Switch Both (Start)

If the engine fails to start, execute the following restart procedure:

Airspeed 68 KIAS
 Fuel Selector Valve Verify Both
 Fuel Shutoff Valve Verify On (IN)
 Mixture Control Idle Cut-Off
 Throttle Full Forward
 Auxiliary Fuel Pump Off
 Ignition Switch Both/Start

If the engine fails to start:

Transponder 7700
 Radio MAYDAY

Continue with the Emergency Landing Without Engine Power Checklist:

Passenger Seats/Seatbacks Upright
 Seatbelts/Harnesses On
 Fuel Shutoff Valve Off (Out Fully)
 Mixture Control Idle Cut-Off
 Flaps 30° Recommended

Cont. ➤

ENGINE FAILURE DURING FLIGHT (cont.)

Ignition Switch Off
 STBY BATT Switch Off
 Master Switch..... Landing Assured/Off
 Cabin Doors Unlatch
 Touchdown..... Slightly Tail Low
 Brakes Apply Heavily

**ENGINE FAILURE DURING FLIGHT CHECKLIST
COMPLETE****ENGINE FIRE DURING START**

Starter Continue to Engage

If the engine starts:

Throttle 1800 RPM (a few minutes)
 Mixture Control Idle Cut-Off
 Engine Inspect

If the engine fails to start:

Starter Continue to Engage
 Fuel Shutoff Valve Off (Out Fully)
 Mixture Control Idle Cut-Off
 Throttle Full Forward
 Auxiliary Fuel Pump Off
 STBY BATT Switch Off
 Master Switch..... Off
 Ignition Switch Off
 Parking Brake..... Release
 Fire Extinguisher Obtain
 Airplane Evacuate

ENGINE FIRE DURING START CHECKLIST .. COMPLETE

ENGINE FIRE IN FLIGHT

Mixture Control.....	Idle Cut-Off
Fuel Shutoff Valve.....	Off (Out Fully)
Auxiliary Fuel Pump	Off
STBY BATT Switch	Off
Master Switch.....	Off

Cabin Air/Heat..... Off
 Airspeed (100+ KIAS) / Extinguish
 FORCED LANDING Execute
ENGINE FIRE IN FLIGHT CHECKLIST COMPLETE

ELECTRICAL FIRE IN FLIGHT

STBY BATT Switch	Off
Master Switch.....	Off
Cabin Vents, Cabin Air/Vent	Close
Fire Extinguisher	Obtain/Discharge

WARNING

After discharging the fire extinguisher and determining
 that the fire is extinguished, ventilate the cabin as soon
 as possible to prevent the inhalation of the contents
 from the extinguisher (halon).

Avionics Master Switch Off
 All Other Switches (except ignition) Off
 Cabin Vents, Cabin Air/Heat Open

ELECTRICAL FIRE IN FLIGHT (cont.)

NOTE
If the fire has been extinguished and electrical power is necessary for the continuance of the flight to the nearest suitable airport or landing area:

- Circuit Breakers (do not reset OPEN circuits)..... Check
 - Master Switch..... On
 - STBY BATT Switch ARM
 - Avionics Master Switch On
 - Radio/Electrical Switches..... On
- ELECTRICAL FIRE IN FLIGHT CHECKLIST.....COMPLETE**

CABIN FIRE

- STBY BATT Switch Off
 - Master Switch..... Off
 - Cabin Vents Close
 - Cabin Air/Heat..... Off
 - Fire Extinguisher Obtain/Discharge

WARNING

After discharging the fire extinguisher and determining that the fire is extinguished, ventilate the cabin as soon as possible to prevent the inhalation of the contents from the extinguisher (halon).

- Cabin Vents, Cabin Air/Heat Open
 - Airport..... Land
- CABIN FIRE IN FLIGHT CHECKLIST COMPLETE**

WING FIRE

Landing/Taxi Lights	Off
Navigation Lights.....	Off
Strobe Lights	Off
Pitot Heat	Off

NOTE

Perform a forward-slip to keep flames away from the fuel tank and cabin (remember: “Step on the fire and fly away from it.”). Land as soon as possible, using flaps only as required for the final approach and touchdown.

WING FIRE IN FLIGHT CHECKLIST COMPLETE

STATIC SOURCE BLOCKAGE

Alternate Static Source	Pull-On
-------------------------------	---------

Cabin HT/Cabin Air Pull-on
Vents Closed
Airspeed POH/Calibration Table, Section 5

STATIC SOURCE BLOCKAGE CHECKLIST... COMPLETE

AUTOPILOT OR ELECTRIC TRIM FAILURE

Accomplish the first two items simultaneously

Control Wheel	Grasp Firmly/Regain Control
A/P Trim Disc Switch	Depress and Hold
Trim	Adjust Manually
Autopilot Circuit Breaker.....	Pull
A/P Trim Disc Switch.....	Release

CARBON MONOXIDE LEVEL HIGH

Cabin Heat	Push Off
Cabin Air	Pull On
Cabin Vents.....	Open

Cabin Windows.....	Open
Airport.....	Land

ABNORMAL CHECKLIST

PRECAUTIONARY LANDING WITH ENGINE POWER

Passenger Seatbacks Upright
Seatbelts/Harnesses Secure
Airspeed 65 KIAS
Flaps 20°
Selected Field Fly Over
Avionics Master Switch Off
Electrical Switches Off
Flaps 30° (On Final)
Airspeed 65 KIAS
Master Switch Off
Cabin Doors Unlatch
Touchdown Slightly Tail-Low
Mixture IDLE CUTOFF
Ignition Switch Off
Brakes Apply Heavily

**PRECAUTIONARY LANDING
WITH ENGINE POWER CHECKLIST COMPLETE**

DITCHING

Radio Mayday
 Heavy Object..... Secure or Jettison
 Passenger Seatbacks Upright
 Seatbelts/Harnesses Secure
 Flaps20°- Full
 PowerEstablish 300 FPM Decent @ 55 KIAS

NOTE
If no power is available, approach at 70 KIAS with Flaps UP (0°), or at 65 KIAS with Flaps 10°.

Approach:
 High Winds, Heavy Seas Into The wind
 Light Winds, Heavy Swells.....Parallel Swells
 Cabin Doors Unlatch
 ELT..... On (Active)
 Touchdown..... Level Attitude
 Face Cushion At Touchdown
 Airplane Evacuate
 Life Vest/Raft..... Inflate Clear of Airplane
DITCHING CHECKLIST COMPLETE

INADVERTENT ICING ENCOUNTER

Pitot Heat On
 Altitude or direction Change

NOTE

Change to obtain an outside air temperature that is less conducive to icing.

Cabin Heat On
 Defrosters On (Full Open)

NOTE

Be alert for indications of engine icing.

Airport Plan Landing
 Flaps 0° (Up)

NOTE

Be prepared for higher stall speeds. If accumulated, scrape the windshield by reaching through the open left window.

Forward Slip As Required
 Approach Speed 65 to 75 KIAS
 Land Level Attitude

INADVERTENT ICING ENCOUNTER CHECKLIST

..... **COMPLETE**

LANDING WITH FLAT MAIN TIRE

Approach Normal
 Flaps 30°
 Touchdown Good Main Tire First
 Directional Control Maintain/Brake Good Wheel

LANDING WITH FLAT MAIN TIRE CHECKLIST

..... **COMPLETE**

LANDING WITH FLAT NOSE TIRE

Approach Normal
 Flaps As Required
 Touchdown..... On Main Gear
 Directional Control..... Maintain
LANDING WITH FLAT NOSE TIRE CHECKLIST
 **COMPLETE**

LOW VACUUM ANNUNCIATOR ILLUMINATES

CAUTION

If the 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

Vacuum Indicator (VAC) Check

NOTE
CHECK Engine Indicating System (EIS) page to ensure vacuum pointer is within green arc limits

LOW VACUUM ANNUNCIATOR ILLUMINATES CHECKLIST
 **COMPLETE**

ELECTRICAL POWER SUPPLY SYSTEM

MALFUNCTIONS

M BUS VOLTS MORE THAT 32 OR M BAT AMPS MORE THAN 40

Alternator Switch Off

NOTE

The Main Battery supplies electrical power to the Main and Essential Buses until **M BUS VOLTS** decreases below **20** volts. When **M BUS VOLTS** falls below **20** volts, the Standby Battery System will automatically supply electrical power to the Essential Bus for **at least 30 minutes**.

Avionics Switch (BUS 1) Off
 Pitot Heat Off
 Lights..... Off
 Cabin Power 12V Off

NOTE

Select COM 1 MIC and NAV 1 on the audio panel and tune to the active frequency before setting AVIONICS BUS 2 to OFF. If COM 2 MIC and NAV 2 are selected when AVIONICS BUS 2 is set to off, the COM and NAV radios **CANNOT** be tuned.

COM 1 / NAV 1 Tune to Active Frequency
 COM 1 MIC / NAV 1 Select

**ELECTRICAL POWER SUPPLY SYSTEM
MALFUNCTIONS (cont.)**

NOTE

When **AVIONICS BUS 2** is **OFF** the following items **WILL NOT** operate:

AutoPilot COMM 2	Audio Panel NAV 2	Transponder MFD
Avionics Switch (BUS 2) Off		

CAUTION

LAND AS SOON AS PRACTICAL.

DO NOT EXTEND FLAPS UNTIL LANDING IS ASSURED.
FLAP MOTOR PRODUCES A LARGE ELECTRICAL LOAD
DURING OPERATION

**ELECTRICAL POWER SYSTEMS MALFUNCTIONS
CHECKLIST**
..... **COMPLETE**

LOW VOLTAGE (VOLTS)

ILLUMINATES DURING FLIGHT

Ammeter Indicates Discharge

NOTE

Illumination of “VOLTS” on the annunciator may occur during low RPM conditions with an electrical load on the system, such as during a low RPM taxi. Under these conditions, the light will extinguish at a higher RPM, not requiring recycling of the Master Switch since an overvoltage condition has not occurred. Set throttle control for 1000 RPM. If LOW VOLTS remains illuminated maintenance must perform electrical system inspection prior to flight.

- Alternator Switch Off
- Alternator Circuit Breaker..... Check (Reset)
- Master Switch (ALT and BAT)..... On
- Low Volts Annunciator Checked Off
- M BUS Volts (27.5 Minimum)..... Check
- M BAT AMPS (Charging {+}) Check

If (VOLTS) illuminates again or remains on:

- Alternator Switch Off

NOTE

The Main Battery supplies electrical power to the Main and Essential Buses until M BUS VOLTS decreases below 20 Volts. When M BUS VOLTS falls below 20 volts, the Standby Battery System will automatically supply electrical power to the Essential Bus for at least 30 minutes.

- Avionics Switch (BUS 1) Off

**LOW VOLTAGE (VOLTS)
ILLUMINATES DURING FLIGHT (cont.)**

If (VOLTS) illuminates again or remains on (cont.):

Pitot Heat	Off
Lights.....	Off
Cabin PWR 12V	Off

NOTE

Select COM 1 MIC and NAV 1 on the audio panel and tune to the active frequency before setting AVIONICS BUS 2 to OFF. If COM 2 MIC and NAV 2 are selected when AVIONICS BUS 2 is set to off, the COM and NAV radios **CANNOT** be tuned.

COM 1 / NAV 1	Tune to Active Frequency
COM 1 MIC / NAV 1	Select

NOTE

When **AVIONICS BUS 2 is OFF** the following items will not operate:

AutoPilot COMM 2	Audio Panel NAV 2	Transponder MFD				
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Avionics switch (BUS 2)</td> <td style="width: 20%; text-align: right;">Off</td> </tr> <tr> <td>Airport.....</td> <td style="text-align: right;">Land</td> </tr> </table>			Avionics switch (BUS 2)	Off	Airport.....	Land
Avionics switch (BUS 2)	Off					
Airport.....	Land					

CAUTION

LAND AS SOON AS PRACTICAL
 DO NOT EXTEND FLAPS UNTIL LANDING IS ASSURED
 FLAP MOTOR IS A LARGE ELECTRICAL LOAD DURING
 OPERATION

**LOW VOLTAGE (VOLTS) ILLUMINATES DURING FLIGHT
CHECKLIST..... COMPLETE**

SYSTEM FAILURES

AIR DATA COMPUTER (ADC)

RED X-PFD AIRSPEED INDICATOR

ADC/AHRS Circuit Breakers Check
(ESS BUS and AVN BUS 1) Check in/Reset
STBY Airspeed Indicator Use

RED X-PFD ALTITUDE INDICATOR

ADC/AHRS Circuit Breakers Check
(ESS BUS and AVN BUS 1) Check in/Reset
STBY Altimeter (Current Barometer) Set

ATTITUDE HEADING and REFERENCE SYSTEM (AHRS)

RED X-PFD ATTITUDE INDICATOR

ADC/AHRS Circuit Breakers Check
(ESS BUS and AVN BUS 1) Check in/Reset
STBY Attitude Indicator Use

RED X- HORIZONTAL SITUATION INDICATOR (HSI)

ADC/AHRS Circuit Breakers Check
(ESS BUS and AVN BUS 1) Check In/Reset
MAG Compass Use

SYSTEM FAILURES (cont.)

DISPLAY COOLING ADVISORY

PFD1 COOLING or MFD COOLING ANNUNCIATOR

Cabin HeatReduce

Forward Avionics FanCheck

(Feel for airflow from the screen on glare shield)

IF FORWARD AVIONICS FAN HAS FAILED

STBY BATT Switch Off

NOTE

If **PFD COOLING** or **MFD COOLING** annunciator does not go off within 3 minutes or if both **PFD1 COOLING** and **MFD1 COOLING** annunciators come on

STBY BATT Switch Off

(Unless needed for emergency power)

Land As Soon As Practical

SYSTEMS FAILURES CHECKLIST COMPLETE

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V SPEEDS

V_{SO}	40 KIAS
V_S	48 KIAS
V_X	62 KIAS
V_Y	74 KIAS
V_{FE} 10°	110 KIAS
V_{FE} (20°-30°)	85 KIAS
V_{NO}	129 KIAS
V_{NE}	163 KIAS
V_A	
2550 lbs.	105 KIAS
2200 lbs.	98 KIAS
1900 lbs.	90 KIAS
V_{WINDOW}	163 KIAS
Maximum Demonstrated Crosswind	15 Kts.

PRIMING/STARTING PROCEDURES

Cold Start – Oil temperature below 150°F.

Auxiliary Fuel Pump	On
Mixture Control	Full Forward (Full Rich)/ (until a fuel flow indication or 3-5 seconds, then Cut-Off)
Auxiliary Fuel Pump	Off
Throttle	Open ¼"

PRIME..... COMPLETE

Continue with ENGINE START FLOW

Hot Start - Oil temperature greater than 150°F.

Auxiliary Fuel Pump	On
Mixture Control	Full Forward (Full Rich)/ (until a fuel flow indication or 1-2 seconds, then Idle Cut-Off)
Auxiliary Fuel Pump	Off
Throttle	Open ¼"

PRIME..... COMPLETE

NOTE

After engine start, advance the Mixture Control 1/3 open, then smoothly to Full Rich as power develops.

Continue with ENGINE START FLOW

PRIMING/STARTING PROCEDURES (cont.)

If a flooded engine is suspected:

Auxiliary Fuel Pump	Off
Mixture Control	Idle Cut-Off
Throttle	½ To Full Forward
Starter	Engage

After engine starts:

Mixture	Full Forward (Full Rich)
Throttle	1000 RPM

Continue with ENGINE START FLOW

NOTE

If the engine fails to start, wait several minutes for the fuel to drain from the cylinders before attempting a subsequent restart. Waiting time will depend on ambient air temperatures, engine temperatures, and battery voltage. If a subsequent start attempt is unsuccessful, contact the Maintenance Department

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