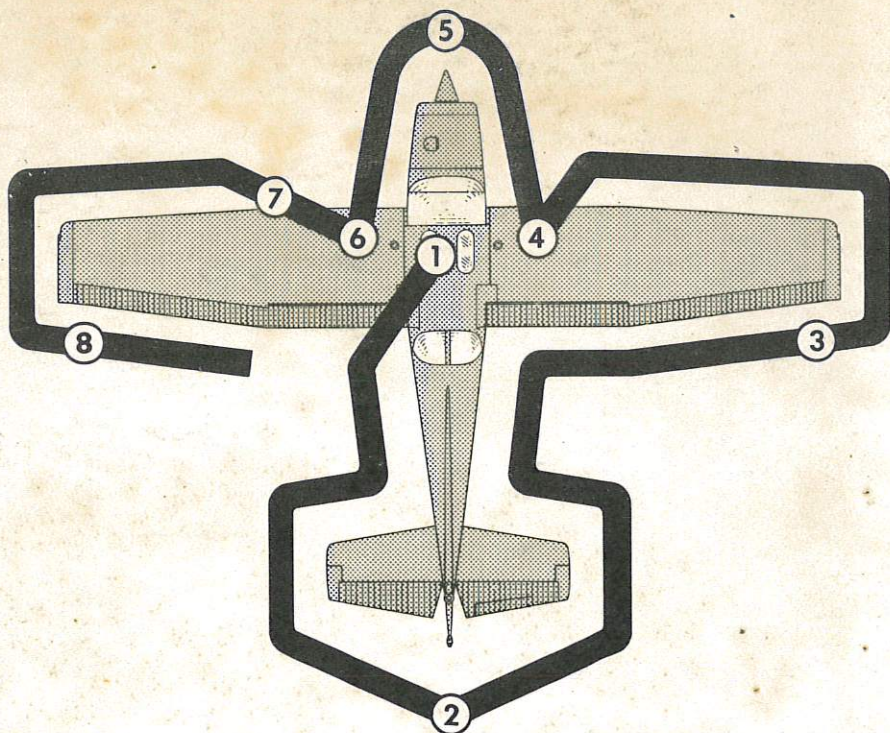


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## PILOT'S CHECKLIST

### PREFLIGHT INSPECTION



#### NOTE

Visually check airplane for general condition during walk-around inspection. In cold weather, remove even small accumulations of frost, ice or snow from wing, tail and control surfaces. Also, make sure that control surfaces contain no internal accumulations of ice or debris. Prior to flight, check that pitot heater (if installed) is warm to touch within 30 seconds with battery and pitot switches on. If a night flight is planned, check operation of all lights, and make sure a flashlight is available.

## **PREFLIGHT INSPECTION**

### **① CABIN**

1. Pilot's Operating Handbook -- AVAILABLE IN THE AIRPLANE.
2. Control Wheel Lock -- REMOVE and STOW.
3. Ignition Switch -- OFF.
4. Avionics Power Switch -- OFF.
5. Master Switch -- ON.

### **WARNING**

When turning on the master switch, using an external power source, or pulling the propeller through by hand, treat the propeller as if the ignition switch were on. Do not stand, nor allow anyone else to stand, within the arc of the propeller, since a loose or broken wire, or a component malfunction, could cause the propeller to rotate.

6. Fuel Quantity Indicators -- CHECK QUANTITY.
7. Master Switch -- OFF.
8. Fuel Shutoff Valve -- ON (push full in).
9. Fuel Selector Valve -- BOTH.
10. Trim Controls -- NEUTRAL.
11. Static Pressure Alternate Source Valve (if installed) -- OFF.
12. Baggage Door -- CHECK for security, lock with key if child's seat is to be occupied.

### **② EMPENNAGE**

1. Rudder Gust Lock -- REMOVE.
2. Tail Tie-Down -- DISCONNECT.
3. Control Surfaces -- CHECK freedom of movement and security.

### **③ RIGHT WING Trailing Edge**

1. Aileron -- CHECK freedom of movement and security.



## **PREFLIGHT INSPECTION**

### **4 RIGHT WING**

1. Wing Tie-Down -- DISCONNECT.
2. Main Wheel Tire -- CHECK for proper inflation.
3. Before first flight of the day and after each refueling, use sampler cup and drain small quantity of fuel from fuel tank sump quick-drain valve to check for water, sediment, and proper fuel grade.
4. Fuel Quantity -- CHECK VISUALLY for desired level.
5. Fuel Filler Cap -- SECURE.

### **5 NOSE**

1. Before first flight of the day and after each refueling, use sampler cup and drain small quantity of fuel from fuel reservoir quick-drain valve to check for water, sediment, and proper fuel grade.
2. Static Source Openings (both sides of fuselage) -- CHECK for stoppage.
3. Propeller and Spinner -- CHECK for nicks, security and oil leaks.
4. Landing Lights -- CHECK for condition and cleanliness.
5. Nose Wheel Strut and Tire -- CHECK for proper inflation.
6. Nose Tie-Down -- DISCONNECT.
7. Engine Oil Level -- CHECK. Do not operate with less than six quarts. Fill to eight quarts for extended flight.
8. Before first flight of the day and after each refueling, pull out strainer drain knob for about four seconds to clear fuel strainer of possible water and sediment. Check strainer drain closed. If water is observed, the fuel system may contain additional water, and further draining of the system at the strainer, fuel tank sumps, reservoir drain valve and fuel selector drain plug will be necessary.

### **6 LEFT WING**

1. Main Wheel Tire -- CHECK for proper inflation.
2. Before first flight of day and after each refueling, use sampler cup and drain small quantity of fuel from fuel tank sump quick-drain valve to check for water, sediment and proper fuel grade.
3. Fuel Quantity -- CHECK VISUALLY for desired level.
4. Fuel Filler Cap -- SECURE.

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## **PREFLIGHT INSPECTION**

### **⑦ LEFT WING Leading Edge**

1. Pitot Tube Cover -- REMOVE and check opening for stoppage.
2. Fuel Tank Vent Opening -- CHECK for stoppage.
3. Stall Warning Opening -- CHECK for stoppage. To check the system, place a clean handkerchief over the vent opening and apply suction; a sound from the warning horn will confirm system operation.
4. Wing Tie-Down -- DISCONNECT.

### **⑧ LEFT WING Trailing Edge**

1. Aileron -- CHECK freedom of movement and security.



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## **PILOT'S CHECKLIST**

### **NORMAL PROCEDURES**

#### **BEFORE STARTING ENGINE**

1. Preflight Inspection -- COMPLETE.
2. Seats, Belts, Shoulder Harnesses -- ADJUST and LOCK.
3. Fuel Shutoff Valve -- ON (push full in).
4. Fuel Selector Valve -- BOTH.
5. Avionics Power Switch, Autopilot (if installed), Electrical Equipment -- OFF.

#### **CAUTION**

The avionics power switch must be OFF during engine start to prevent possible damage to avionics.

6. Brakes -- TEST and SET.
7. Cowl Flap -- OPEN (move lever inboard out of locking hole to reposition).
8. Circuit Breakers -- CHECK IN.

#### **STARTING ENGINE**

1. Mixture -- RICH.
2. Propeller -- HIGH RPM.
3. Throttle -- CLOSED.
4. Master Switch -- ON.
5. Auxiliary Fuel Pump Switch -- HIGH.
6. Throttle -- ADVANCE to obtain 8-10 GPH fuel flow then return to CLOSED position.
7. Auxiliary Fuel Pump Switch -- OFF.
8. Propeller Area -- CLEAR.
9. Ignition Switch -- START (release to BOTH when engine starts).

#### **NOTE**

The engine should start in two to three revolutions. If it does not continue running, start again at step 3 above. If the engine does not start, leave the auxiliary fuel pump switch off, set the mixture to idle cut-off, open the throttle, and crank until the engine fires (or for approximately 15 (Cont.)

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## **NORMAL PROCEDURES**

### **STARTING ENGINE (Cont.)**

seconds). If still unsuccessful, start again using the normal starting procedure after allowing the starter motor to cool.

10. Throttle -- 800 to 1000 RPM.
11. Oil Pressure -- CHECK.
12. Flashing Beacon and Navigation Lights -- ON as required.
13. Avionics Power Switch -- ON.
14. Radios -- ON.

### **BEFORE TAKEOFF**

1. Parking Brake -- SET.
2. Cabin Doors -- CLOSED and LOCKED.
3. Flight Controls -- FREE and CORRECT.
4. Flight Instruments -- SET.
5. Fuel Selector Valve -- BOTH.
6. Elevator and Rudder Trim -- SET.
7. Throttle -- 1800 RPM.
  - a. Magnetos -- CHECK (RPM drop should not exceed 150 RPM on either magneto or 50 RPM differential between magnetos).
  - b. Propeller -- CYCLE from high to low RPM; return to high RPM (full in).
  - c. Engine Instruments and Ammeter -- CHECK.
  - d. Suction Gage -- CHECK (4.5 to 5.4 In. Hg.).
  - e. Throttle -- 1000 RPM or less.
8. Radios -- SET.
9. Autopilot (if installed) -- OFF.
10. Strobe Lights -- AS DESIRED.
11. Throttle Friction Lock -- ADJUST.
12. Brakes -- RELEASE.

### **TAKEOFF**

#### **NORMAL TAKEOFF**

1. Wing Flaps -- 0°- 10° (10° preferred).
2. Power -- FULL THROTTLE and 2600 RPM.
3. Mixture -- LEAN for field elevation per fuel flow placard.
4. Elevator Control -- LIFT NOSE WHEEL at 55 KIAS.
5. Climb Speed -- 75-85 KIAS.

D6045-3 (Sheet 2)



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## **NORMAL PROCEDURES**

### **SHORT FIELD TAKEOFF**

1. Wing Flaps -- 10°.
2. Brakes -- APPLY.
3. Power -- FULL THROTTLE and 2600 RPM.
4. Mixture -- LEAN for field elevation per fuel flow placard.
5. Brakes -- RELEASE.
6. Elevator Control -- MAINTAIN SLIGHTLY TAIL-LOW ATTITUDE.
7. Climb Speed -- 58 KIAS (until all obstacles are cleared).
8. Wing Flaps -- RETRACT after obstacles are cleared.

### **ENROUTE CLIMB**

#### **NORMAL CLIMB**

1. Airspeed -- 85-95 KIAS.
2. Power -- FULL THROTTLE and 2600 RPM.
3. Fuel Selector Valve -- BOTH.
4. Mixture -- LEAN for altitude per fuel flow placard.
5. Cowl Flap -- OPEN as required.

#### **MAXIMUM PERFORMANCE CLIMB**

1. Airspeed -- 78 KIAS at sea level to 73 KIAS at 10,000 feet.
2. Power -- FULL THROTTLE and 2600 RPM.
3. Fuel Selector Valve -- BOTH.
4. Mixture -- LEAN for altitude per fuel flow placard.
5. Cowl Flap -- OPEN.

### **CRUISE**

1. Power -- 15-25 INCHES Hg, 2200-2600 RPM (no more than 80% power).
2. Elevator and Rudder Trim -- ADJUST.
3. Mixture -- LEAN for cruise fuel flow using the EGT gage, Cessna Power Computer or the data in Section 5 of Pilot's Operating Handbook.
4. Cowl Flap -- CLOSED.

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## **NORMAL PROCEDURES**

### **DESCENT**

1. Fuel Selector Valve -- BOTH.
2. Power -- AS DESIRED.
3. Mixture -- ENRICHEN as required for engine smoothness.
4. Cowl Flap -- CLOSED.

### **BEFORE LANDING**

1. Seats, Belts, Shoulder Harnesses -- ADJUST and LOCK.
2. Fuel Selector Valve -- BOTH.
3. Propeller -- HIGH RPM.
4. Cowl Flap -- CLOSED.
5. Autopilot (if installed) -- OFF.

### **LANDING**

#### **NORMAL LANDING**

1. Airspeed -- 65-75 KIAS (flaps UP).
2. Wing Flaps -- AS DESIRED (0° - 10° below 110 KIAS, 10° - 40° below 85 KIAS).
3. Airspeed -- 60-70 KIAS (flaps DOWN).
4. Elevator and Rudder Trim -- ADJUST.
5. Touchdown -- MAIN WHEELS FIRST.
6. Landing Roll -- LOWER NOSE WHEEL GENTLY.
7. Braking -- MINIMUM REQUIRED.

#### **SHORT FIELD LANDING**

1. Airspeed -- 65-75 KIAS (flaps UP).
2. Wing Flaps -- FULL DOWN (below 85 KIAS).
3. Airspeed -- MAINTAIN 60 KIAS.
4. Elevator and Rudder Trim -- ADJUST.
5. Power -- REDUCE TO IDLE as obstacle is cleared.
6. Touchdown -- MAIN WHEELS FIRST.
7. Brakes -- APPLY HEAVILY.
8. Wing Flaps -- RETRACT for maximum brake effectiveness.



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## **NORMAL PROCEDURES**

### **BALKED LANDING**

1. Power -- FULL THROTTLE and 2600 RPM.
2. Wing Flaps -- RETRACT to 20°.
3. Airspeed -- 55 KIAS.
4. Wing Flaps -- RETRACT slowly after reaching 65 KIAS.
5. Cowl Flap -- OPEN.

### **AFTER LANDING**

1. Wing Flaps -- RETRACT.
2. Cowl Flap -- OPEN.

### **SECURING AIRPLANE**

1. Parking Brake -- SET.
2. Avionics Power Switch, Autopilot (if installed), Electrical Equipment -- OFF.
3. Throttle -- IDLE.
4. Mixture -- IDLE CUT-OFF (pull full out).
5. Ignition Switch -- OFF.
6. Master Switch -- OFF.
7. Control Lock -- INSTALL.
8. Fuel Selector Valve -- RIGHT.





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## **PILOT'S CHECKLIST**

### **EMERGENCY PROCEDURES**

#### **ENGINE FAILURES**

##### **ENGINE FAILURE DURING TAKEOFF RUN**

1. Throttle -- IDLE.
2. Brakes -- APPLY.
3. Wing Flaps -- RETRACT.
4. Mixture -- IDLE CUT-OFF.
5. Ignition Switch -- OFF.
6. Master Switch -- OFF.

##### **ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF**

1. Airspeed -- 70 KIAS (flaps UP).  
65 KIAS (flaps DOWN).
2. Mixture -- IDLE CUT-OFF.
3. Fuel Shutoff Valve -- OFF (pull out).
4. Ignition Switch -- OFF.
5. Wing Flaps -- AS REQUIRED (full down recommended).
6. Master Switch -- OFF.

##### **ENGINE FAILURE DURING FLIGHT**

1. Airspeed -- 75 KIAS.
2. Primer -- IN and LOCKED.
3. Fuel Shutoff Valve -- ON (push full in).
4. Fuel Selector Valve -- BOTH.
5. Mixture -- RICH.
6. Throttle -- 1/2 OPEN.
7. Auxiliary Fuel Pump -- LOW for 3-5 seconds then OFF.
8. Ignition Switch -- BOTH (or START if propeller is stopped).

#### **FORCED LANDINGS**

##### **EMERGENCY LANDING WITHOUT ENGINE POWER**

1. Airspeed -- 70 KIAS (flaps UP).  
65 KIAS (flaps DOWN).

(Cont.)

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## **EMERGENCY PROCEDURES**

### **EMERGENCY LANDING WITHOUT ENGINE POWER (Cont.)**

2. Seat Belts and shoulder Harnesses -- SECURE.
3. Mixture -- IDLE CUT-OFF.
4. Fuel Shutoff Valve -- OFF.
5. All Switches (except master switch) -- OFF.
6. Wing Flaps -- AS REQUIRED (full down recommended).
7. Master Switch -- OFF.
8. Doors -- UNLATCH PRIOR TO TOUCHDOWN.
9. Touchdown -- SLIGHTLY TAIL LOW.
10. Brakes -- APPLY HEAVILY.

### **PRECAUTIONARY LANDING WITH ENGINE POWER**

1. Seat Belts and Shoulder Harnesses -- SECURE
2. Wing Flaps -- 20°.
3. Airspeed -- 65 KIAS.
4. Selected Field -- FLY OVER, noting terrain and obstructions, then retract flaps upon reaching a safe altitude and airspeed.
5. Avionics Power Switch and Electrical Switches -- OFF.
6. Wing Flaps -- FULL DOWN (on final approach).
7. Airspeed -- 65 KIAS.
8. Master Switch -- OFF.
9. Doors -- UNLATCH PRIOR TO TOUCHDOWN.
10. Touchdown -- SLIGHTLY TAIL LOW.
11. Ignition Switch -- OFF.
12. Brakes -- APPLY HEAVILY.

### **DITCHING**

1. Radio -- TRANSMIT MAYDAY on 121.5 MHz, giving location and intentions and SQUAWK 7700 if transponder is installed.
2. Heavy Objects (in baggage area) -- SECURE OR JETTISON.
3. Seat Belts and Shoulder Harnesses -- SECURE .
4. Wing Flaps -- 20° - 40°.
5. Power -- ESTABLISH 300 FT/MIN DESCENT AT 55 KIAS.
6. Approach -- High Winds, Heavy Seas -- INTO THE WIND.  
Light Winds, Heavy Swells -- PARALLEL TO SWELLS.

(Cont.)



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## **EMERGENCY PROCEDURES**

### **DITCHING (Cont.)**

#### **NOTE**

If no power is available, approach at 65 KIAS with flaps up or at 60 KIAS with 10° flaps.

7. Cabin Doors -- UNLATCH.
8. Face -- CUSHION at touchdown with folded coat.
9. Touchdown -- LEVEL ATTITUDE AT ESTABLISHED RATE OF DESCENT.
10. Airplane -- EVACUATE through cabin doors. If necessary, open window and flood cabin to equalize pressure so doors can be opened.
11. Life Vests and Raft -- INFLATE.

### **FIRES**

#### **DURING START ON GROUND**

1. Auxiliary Fuel Pump -- OFF.
2. Mixture -- IDLE CUT-OFF.
3. Parking Brake -- RELEASE.
4. Fire Extinguisher -- OBTAIN (have ground attendants obtain if not installed).
5. Airplane -- EVACUATE.
6. Fire -- EXTINGUISH.

#### **NOTE**

If sufficient ground personnel are available (and fire is on ground and not too dangerous) move airplane away from the fire by pushing rearward on the leading edge of the horizontal stabilizer.

7. Fire Damage -- INSPECT, repair damage or replace damaged components or wiring before conducting another flight.

#### **ENGINE FIRE IN FLIGHT**

1. Throttle -- CLOSE.
2. Mixture -- IDLE CUT-OFF.
3. Fuel Shutoff Valve -- OFF.
4. Master Switch -- OFF.

(Cont.)

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## EMERGENCY PROCEDURES

### ENGINE FIRE IN FLIGHT (Cont.)

5. Cabin Heat and Air -- OFF (except overhead vents).
6. Airspeed -- 105 KIAS (If fire is not extinguished, increase glide speed to find an airspeed which will provide an incombustible mixture).
7. Forced Landing -- EXECUTE (as described in Emergency Landing Without Engine Power).

### ELECTRICAL FIRE IN FLIGHT

1. Master Switch -- OFF.
2. Avionics Power Switch -- OFF.
3. All Other Switches (except ignition switch) -- OFF.
4. Vents/Cabin Air/Heat -- CLOSED.
5. Fire Extinguisher -- ACTIVATE (if available).

### WARNING

After discharging an extinguisher within a closed cabin, ventilate the cabin.

If fire appears out and electrical power is necessary for continuance of flight:

6. Master Switch -- ON.
7. Circuit Breakers -- CHECK for faulty circuit, do not reset.
8. Radio Switches -- OFF.
9. Avionics Power Switch -- ON.
10. Radio/Electrical Switches -- ON one at a time, with delay after each until short circuit is localized.
11. Vents/Cabin Air/Heat -- OPEN when it is ascertained that fire is completely extinguished.

### CABIN FIRE

1. Master Switch -- OFF.
  2. Vents/Cabin Air/Heat -- CLOSED (to avoid drafts).
  3. Fire Extinguisher -- ACTIVATE (if available).
- (Cont.)



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## EMERGENCY PROCEDURES

### CABIN FIRE (Cont.)

#### WARNING

After discharging an extinguisher within a closed cabin, ventilate the cabin.

4. Land the airplane as soon as possible to inspect for damage.

### WING FIRE

1. Navigation Light Switch -- OFF.
2. Strobe Light Switch (if installed) -- OFF.
3. Pitot Heat Switch (if installed) -- OFF.

#### NOTE

Perform a sideslip to keep the flames away from the fuel tank and cabin, and land as soon as possible using flaps only as required for final approach and touchdown.

## ICING

### INADVERTENT ICING ENCOUNTER

1. Turn pitot heat switch ON (if installed).
2. Turn back or change altitude to obtain an outside air temperature that is less conducive to icing.
3. Pull cabin heat control full out to obtain maximum windshield defroster airflow.
4. Increase engine speed to minimize ice build-up on propeller blades.
5. Watch for signs of induction air filter ice and regain manifold pressure by increasing the throttle setting.
6. Plan a landing at the nearest airport. With an extremely rapid ice build-up, select a suitable "off airport" landing site.
7. With an ice accumulation of 1/4 inch or more on the wing leading edges, be prepared for significantly higher stall speed.

(Cont.)

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## **EMERGENCY PROCEDURES**

### **INADVERTENT ICING ENCOUNTER (Cont.)**

8. Leave wing flaps retracted. With a severe ice build-up on the horizontal tail, the change in wing wake airflow direction caused by wing flap extension could result in a loss of elevator effectiveness.
9. Open left window and, if practical, scrape ice from a portion of the windshield for visibility in the landing approach.
10. Perform a landing approach using a forward slip, if necessary, for improved visibility.
11. Approach at 80 to 90 KIAS depending upon the amount of the accumulation.
12. Perform a landing in level attitude.

### **STATIC SOURCE BLOCKAGE (Erroneous Instrument Reading Suspected)**

1. Alternate Static Source Valve -- PULL ON.
2. Airspeed -- Consult appropriate calibration tables in Section 5 of Pilot's Operating Handbook or climb and approach 3 knots faster than normal.
3. Altitude -- Cruise and approach 25 feet higher than normal.

### **LANDING WITH A FLAT MAIN TIRE**

1. Approach -- NORMAL.
2. Wing Flaps -- FULL DOWN.
3. Touchdown -- GOOD TIRE FIRST, hold airplane off flat tire as long as possible with aileron control.

### **ELECTRICAL POWER SUPPLY SYSTEM MALFUNCTIONS**

#### **AMMETER SHOWS EXCESSIVE RATE OF CHARGE (Full Scale Deflection)**

1. Alternator -- OFF.
2. Alternator Circuit Breaker -- PULL.
3. Nonessential Electrical Equipment -- OFF.
4. Flight -- TERMINATE as soon as practical.



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## **EMERGENCY PROCEDURES**

### **LOW-VOLTAGE LIGHT ILLUMINATES DURING FLIGHT (Ammeter Indicates Discharge)**

#### **NOTE**

Illumination of the low-voltage light 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 go out at higher RPM. The master switch need not be recycled since an over-voltage condition has not occurred to de-activate the alternator system.

1. Avionics Power Switch -- OFF.
2. Alternator Circuit Breaker -- CHECK IN.
3. Master Switch -- OFF (both sides).
4. Master Switch -- ON.
5. Low-Voltage Light -- CHECK OFF.
6. Avionics Power Switch -- ON.

If low-voltage light illuminates again:

7. Alternator -- OFF.
8. Nonessential Radio and Electrical Equipment -- OFF.
9. Flight -- TERMINATE as soon as practical.

