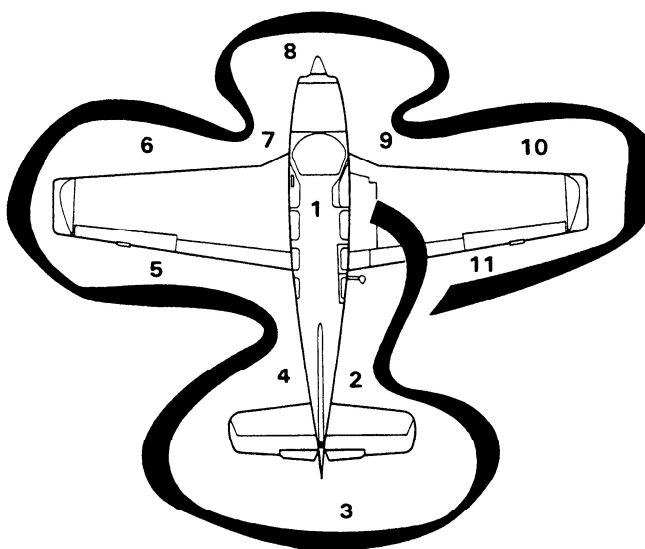


**Section IV  
Normal Procedures**

**BEEHCRAFT Bonanza 36, A36  
E-1 thru E-926**

**PREFLIGHT INSPECTION**



**Emergency Locator Transmitter - ARMED**  
Location may vary with individual airplanes

**1. CABIN:**

- a. Parking Brake - SET
- b. Control Lock - REMOVE
- c. All Switches - OFF

**2. RIGHT FUSELAGE:**

- a. Utility Doors - SECURE
- b. Static Pressure Button - UNOBSTRUCTED

**3. EMPENNAGE:**

- a. Control Surfaces - CHECK
- b. Tie Down - REMOVE
- c. Position Light - CHECK
- d. Cabin Air Intake - CHECK

**4. LEFT FUSELAGE:**

- a. Static Pressure Button - UNOBSTRUCTED
- b. All Antennas - CHECK

**5. LEFT WING TRAILING EDGE:**

- a. Flap - CHECK
- b. Aileron - CHECK
- c. Wing Tip - CHECK
- d. Position Light - CHECK

**6. LEFT WING LEADING EDGE:**

- a. Stall Warning - CHECK
- b. Pitot Tube - CHECK (Remove Cover)
- c. Fuel Tank - CHECK QUANTITY; Filler Cap SECURE.
- d. Cabin Air Intake - CHECK
- e. Tie Down and Chocks - REMOVE

**7. LEFT LANDING GEAR:**

- a. Wheel Well Door, Tire and Strut - CHECK
- b. Fuel Vent - CHECK
- c. Fuel Sump - DRAIN
- d. Fuel Selector Valve Sump - DRAIN; Cover SECURE

**Section IV  
Normal Procedures**

**BEECHCRAFT Bonanza 36, A36  
E-1 thru E-926**

**8. NOSE SECTION:**

- a. Left Cowl Flap - CHECK
- b. Engine Oil - CHECK (See Servicing, Section 8) Cap and Dipstick - SECURE
- c. Left Cowl - SECURE
- d. Propeller - CHECK, General Condition, Nicks, etc.
- e. Wheel Well Doors, Tire and Strut - CHECK
- f. Induction Air Intake - CLEAR
- g. Landing Light (s) - CHECK
- h. Engine - CHECK GENERAL CONDITION
- i. Right Cowl - SECURE
- j. Right Cowl Flap - CHECK
- k. Chocks - REMOVE

**9. RIGHT LANDING GEAR:**

- a. Fuel Vent - CHECK
- b. Fuel Sump - DRAIN
- c. Wheel Well Door, Tire and Strut - CHECK

**10. RIGHT WING LEADING EDGE:**

- a. Cabin Air Intake - CHECK
- b. Tie Down and Chocks - REMOVE
- c. Fuel Tank - CHECK QUANTITY; Filler Cap - SECURE

**11. RIGHT WING TRAILING EDGE:**

- a. Position Light - CHECK
- b. Wing Tip - CHECK
- c. Aileron - CHECK
- d. Flap - CHECK

***CAUTION***

**NEVER TAXI IF ANY STRUT IS FLAT.**

**BEFORE STARTING**

1. Seats - POSITION AND LOCK; Seat Backs - UPRIGHT
2. Seat Belts and Shoulder Harnesses - FASTEN
3. Parking Brake - SET
4. All Avionics - OFF
5. Circuit Breakers - IN
6. Landing Gear Handle - DOWN; Safety System - CHECK  
(If installed)
7. Flaps - UP
8. Cowl Flaps - OPEN
9. Light Switches - As required
10. Fuel Selector Valve - CHECK OPERATION; SELECT  
TANK MORE NEARLY FULL
11. Battery and Alternator Switches - ON (If external  
power is used, turn Alternator Switch - OFF) (See  
Section 7)
12. Fuel Quantity Indicators - CHECK QUANTITY

**WARNING**

Do not take off if gages indicate in yellow arc or  
with less than 13 gallons in each main tank.

**EXTERNAL POWER**

When using external power, it is very important that the  
following precautions be observed:

1. The airplane has a negative ground system. Exercise  
care to avoid reversed polarity. Be sure to connect the  
positive lead of the external power unit to the positive  
terminal of the airplane's external power receptacle  
and the negative lead to the negative terminal of the  
external power receptacle. A positive voltage must  
also be applied to the small guide pin.



**Section IV  
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**BEECHCRAFT Bonanza 36, A36  
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2. To prevent arcing, make certain no power is being supplied when the connection is made.
3. Make certain that the battery switch is ON, all avionics and electrical switches OFF, and a battery is in the system before connecting an external power unit. This protects the voltage regulators and associated electrical equipment from voltage transients (power fluctuations).

**STARTING ENGINE USING AUXILIARY POWER UNIT**

1. Alternator, Electrical, and Avionics Equipment - OFF
2. Auxiliary Power Unit - CONNECT
3. Auxiliary Power Unit - SET OUTPUT (13.5 to 14.25 volts)
4. Auxiliary Power Unit - ON
5. Engine - START using normal procedures
6. Auxiliary Power Unit - OFF (after engine has been started)
7. Auxiliary Power Unit - DISCONNECT
8. Alternator Switch - ON

**STARTING**

**CAUTION**

Vernier-type engine controls should not be rotated clockwise after being advanced to the full forward position.

1. Mixture - FULL RICH
2. Propeller - HIGH RPM
3. Throttle - FULL OPEN
4. Auxiliary Fuel Pump - On until fuel flow peaks then OFF
5. Throttle - Approximately 1/4 inch open.
6. Magneto/Start Switch - START position; release to BOTH position when engine fires

**CAUTION**

Do not engage starter for more than 30 seconds in any 4-minute time period.

7. In Event of Overprime Condition:
  - a. Mixture - IDLE CUT-OFF
  - b. Throttle - OPEN
  - c. Magneto/Start Switch - START position
  - d. As engine fires, reduce throttle to IDLE and advance the mixture control to FULL RICH

**NOTE**

During hot starts, the Auxiliary Fuel Pump is turned on momentarily after starting to purge system, then turned off.

8. Throttle - 1000 to 1200 RPM
9. Oil Pressure - CHECK
10. External Power (if used) - DISCONNECT
11. Alternator Switch - ON; CHECK FOR CHARGING
12. All Engine Indicators - CHECK

**CAUTION**

The ammeter indication should be less than 25% of full charge at 1000 to 1200 rpm within two minutes, with no additional electrical equipment on. If not, turn off the battery and alternator switches, and do not take off.

**AFTER STARTING, AND TAXI**

1. Brakes - RELEASE AND CHECK
2. Avionics Equipment - ON, AS REQUIRED
3. Lights - AS REQUIRED

**CAUTION**

Do not operate engine above 1200 RPM until oil temperature reaches 75°F (24°C).

**Section IV  
Normal Procedures**

**BEEHCRAFT Bonanza 36, A36  
E-1 thru E-926**

**BEFORE TAKEOFF**

1. Seat Belts and Shoulder Harnesses - CHECK

**NOTE**

All reclining seats must be in the upright position during take-off.

2. Parking Brake - SET
3. Radios - CHECK
4. Engine Instruments - CHECK
5. Flight Instruments - CHECK AND SET
6. Ammeter - CHECK - for stabilized indication between 0 and 25% of full charge at 1000 to 1200 rpm
7. Auxiliary Fuel Pump - CHECK OFF
8. Throttle - 1700 RPM
9. Propeller - EXERCISE to obtain approximately 300 to 400 rpm drop; return to high rpm
10. Magnetos - CHECK at 1700 rpm (variance between individual magnetos should not exceed 50 rpm, maximum drop not to exceed 150 rpm.)
11. Trim - SET
  - a. Aileron - NEUTRAL
  - b. Elevator - 3° (6° nose up if only front seats are occupied)
12. Flaps - UP
13. Door and Windows - SECURE
14. Controls - CHECK PROPER DIRECTION AND FREEDOM OF MOVEMENT
15. Mixture - FULL RICH (or as required by field elevation)
16. Brakes - RELEASED
17. Instruments - CHECK (Make final check of manifold pressure, fuel flow, and rpm at the start of the take-off run.)

**TAKE-OFF**

Take-Off Power ..... Full Throttle, 2700 rpm

1. Power - SET TAKE-OFF POWER (Mixture - SET as required by field elevation)
2. Brakes - RELEASE THEN ACCELERATE to recommended speeds
3. Landing Gear - RETRACT (when positive rate of climb is established and insufficient runway remains for landing)
4. Airspeed - ESTABLISH DESIRED CLIMB SPEED (when clear of obstacles)

**CLIMB**

Maximum Continuous ..... Full Throttle, 2700 rpm  
Cruise Climb ..... 25 in. Hg (or full throttle) 2500 rpm

1. Engine Temperatures - MONITOR
2. Power - SET AS DESIRED.
3. Mixture - SET FUEL FLOW

**CRUISE**

See Cruise Charts in PERFORMANCE Section.

1. Cowl Flaps - CLOSED
2. Power - SET
3. Mixture - SET FUEL FLOW

**LEANING USING THE EXHAUST GAS  
TEMPERATURE INDICATOR (EGT)**

A thermocouple-type exhaust gas temperature (EGT) probe is mounted in the exhaust system. This probe is connected to an indicator on the instrument panel. The indicator is calibrated in degrees Fahrenheit. Use EGT system to lean the fuel/air mixture when cruising at 75% power or less in the following manner:

1. Lean the mixture and note the point on the indicator that the temperature peaks and starts to fall.
  - a. CRUISE (LEAN) MIXTURE - Increases the mixture until the EGT shows a drop of 25°F below peak on the rich side of peak.
  - b. BEST POWER MIXTURE - Increase the mixture until the EGT shows a drop of 100°F below peak on the rich side of peak.

**CAUTION**

Do not continue to lean mixture beyond that necessary to establish peak temperature.

2. Continuous operation is recommended at 25°F or more below peak EGT only on the rich side of peak.
3. Changes in altitude and power settings require the peak EGT to be rechecked and the mixture reset.

**DESCENT**

1. Altimeter - SET
2. Cowl Flaps - CLOSED
3. Power - AS REQUIRED (avoid prolonged idle settings and low cylinder head temperatures)
4. Mixture - ENRICH AS REQUIRED

**BEFORE LANDING**

1. Seat Belts and Shoulder Harnesses - SECURE

**NOTE**

All reclining seats must be in the upright position during landing.

2. Fuel Selector Valve - SELECT TANK MORE NEARLY FULL
3. Cowl Flaps - AS REQUIRED
4. Mixture - FULL RICH (or as required by field elevation)
5. Landing Gear - DOWN and CHECK. (Observe maximum extension speed)
6. Landing and Taxi Lights - AS REQUIRED
7. Flaps - DOWN (Observe maximum extension speed)
8. Airspeed - ESTABLISH LANDING APPROACH SPEED.
9. Propeller - HIGH RPM

**BALKED LANDING**

1. Power - FULL THROTTLE, 2700 RPM
2. Airspeed - 76 kts/87 mph until clear of obstacles, then trim to normal climb speed
3. Flaps - UP
4. Landing Gear - UP
5. Cowl Flaps - OPEN

**Section IV  
Normal Procedures**

**BEECHCRAFT Bonanza 36, A36  
E-1 thru E-926**

**AFTER LANDING**

1. Landing and Taxi Lights - AS REQUIRED
2. Flaps - UP
3. Trim Tab - SET TO 0°
4. Cowl Flaps - OPEN

**SHUTDOWN**

1. Brakes - SET
2. Electrical and Radio Equipment - OFF
3. Throttle - CLOSE
4. Mixture - IDLE CUT-OFF
5. Magneto/Start Switch - OFF, after engine stops
6. Battery and Alternator Switches - OFF
7. Control Lock - INSTALL, if conditions warrant.
8. Install wheel chocks and release brakes if the airplane is to be left unattended.

**ENVIRONMENTAL SYSTEMS**

**OXYGEN SYSTEM**

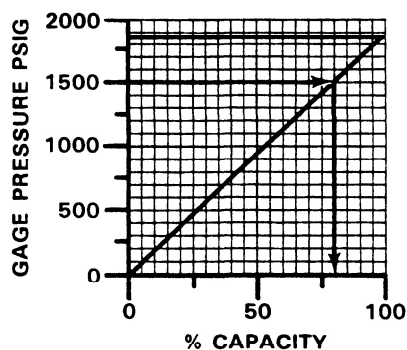
***PREFLIGHT***

1. Check Oxygen Pressure Gage for pressure reading.
2. Determine percent of full system.
3. Multiply oxygen duration in minutes by percent of full bottle.

**EXAMPLE:**

People .....	5
Gage Pressure .....	1500 psig
Oxygen Available (from chart) .....	80%
Cylinder Capacity (full) .....	49 cu ft
Altitude (planned flight) .....	15,000 ft
Full Bottle Duration (from chart) .....	149 min
Duration (80% full) .....	119 min

**OXYGEN AVAILABLE WITH  
PARTIALLY FULL BOTTLE**



**OXYGEN DURATION**

The recommended masks are provided with the system. They are designed to be adjustable to fit the average person, with minimum leakage of oxygen.

**CAUTION**

Since 90% of the system efficiency is determined by the fit of the oxygen mask, make certain the masks fit properly and are in good condition.