

## DESCRIPTION AND OPERATING DETAILS

The following paragraphs describe the systems and equipment whose function and operation is not obvious when sitting in the aircraft. This section also covers in somewhat greater detail some of the items listed in Check List form in Section I that require further explanation.

### FUEL SYSTEM.

Fuel is supplied to the engine from two tanks, one in each wing. When the fuel selector valve is on BOTH, the total usable fuel for all flight conditions is 38 gallons for the standard tanks and 48 gallons for the optional long range tanks.

Fuel from each wing tank flows by gravity to a selector valve. Depending upon the setting of the selector valve, fuel from the left, right, or both tanks flows through a fuel strainer and carburetor to the engine induction system.

The fuel selector valve should be in the BOTH position for take-off, climb, landing, and maneuvers that involve prolonged slips or skids. Operation from either LEFT or RIGHT tank is reserved for cruising flight.

#### NOTE

With low fuel (1/8th tank or less), a prolonged steep descent (1500 feet or more) with partial power, full flaps, and 80 MPH or greater should be avoided due to the possibility of the fuel tank outlets being uncovered, causing temporary fuel starvation. If starvation occurs, leveling the nose should restore power within 20 seconds.

#### NOTE

When the fuel selector valve handle is in the BOTH position in cruising flight, unequal fuel flow from each

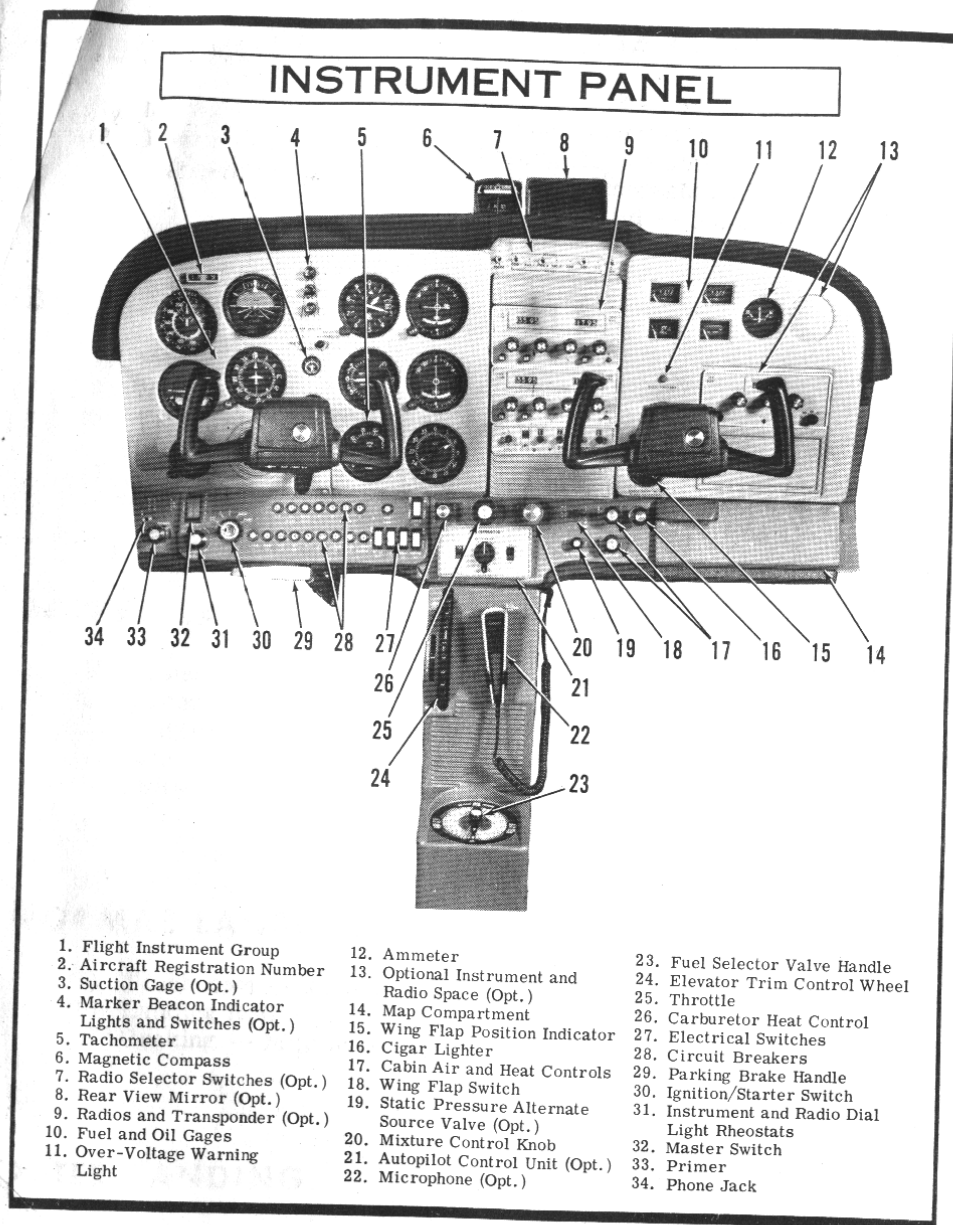


Figure 2-1.

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|---|---|---|
| 1. Flight Instrument Group                            | 12. Ammeter                                       | 23. Fuel Selector Valve Handle                |
| 2. Aircraft Registration Number                       | 13. Optional Instrument and Radio Space (Opt.)    | 24. Elevator Trim Control Wheel               |
| 3. Suction Gage (Opt.)                                | 14. Map Compartment                               | 25. Throttle                                  |
| 4. Marker Beacon Indicator Lights and Switches (Opt.) | 15. Wing Flap Position Indicator                  | 26. Carburetor Heat Control                   |
| 5. Tachometer   | 16. Cigar Lighter                                 | 27. Electrical Switches                       |
| 6. Magnetic Compass                                   | 17. Cabin Air and Heat Controls                   | 28. Circuit Breakers                          |
| 7. Radio Selector Switches (Opt.)                     | 18. Wing Flap Switch                              | 29. Parking Brake Handle                      |
| 8. Rear View Mirror (Opt.)                            | 19. Static Pressure Alternate Source Valve (Opt.) | 30. Ignition/Starter Switch                   |
| 9. Radios and Transponder (Opt.)                      | 20. Mixture Control Knob                          | 31. Instrument and Radio Dial Light Rheostats |
| 10. Fuel and Oil Gages                                | 21. Autopilot Control Unit (Opt.)                 | 32. Master Switch                             |
| 11. Over-Voltage Warning Light                        | 22. Microphone (Opt.)                             | 33. Primer                                    |
|   |   | 34. Phone Jack                                |