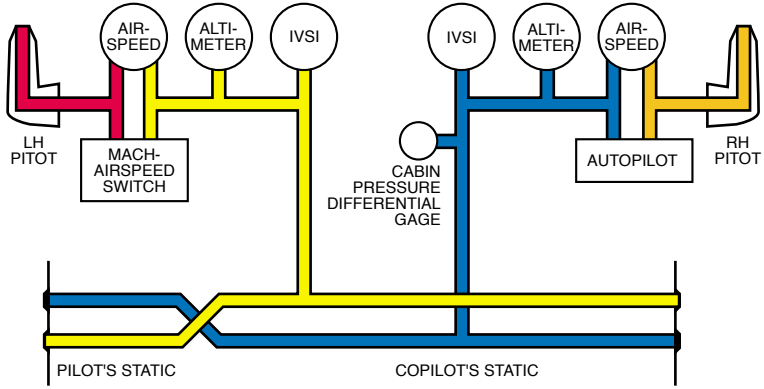
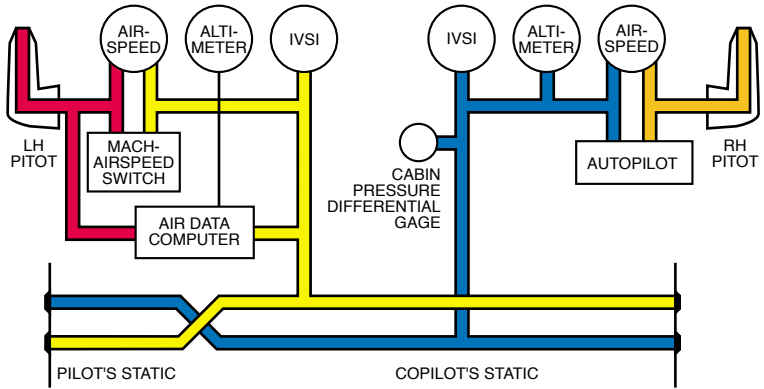


# Pitot/Static System



**CITATION**

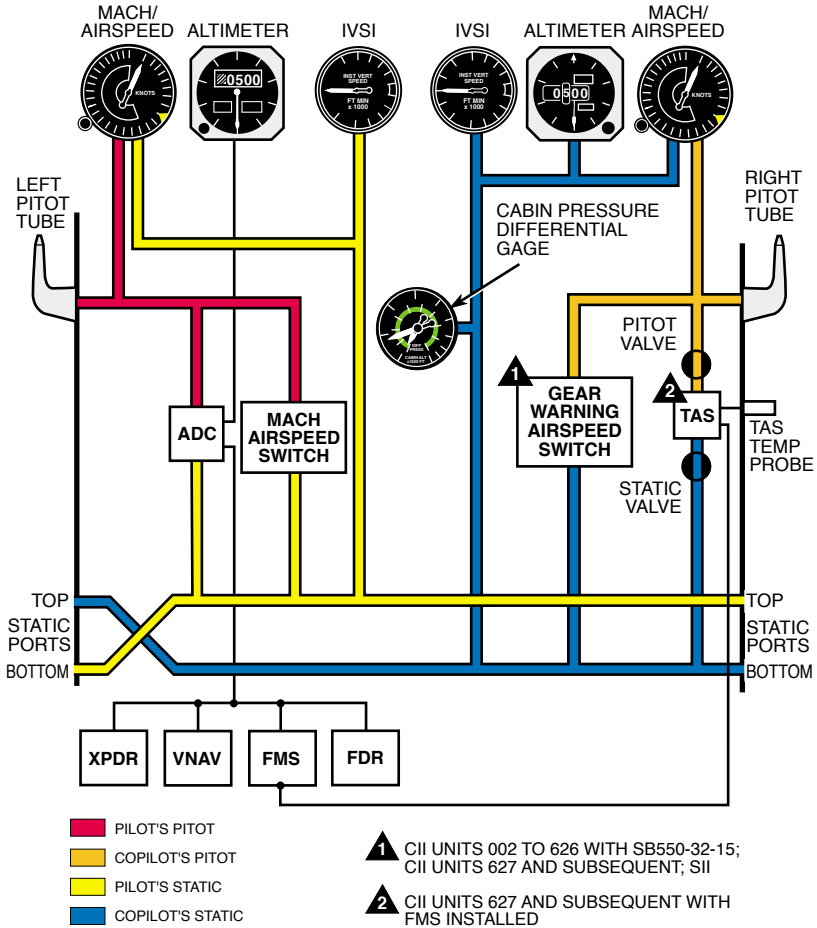


**CITATION I**

- PILOT'S PITOT
- COPILOT'S PITOT
- PILOT'S STATIC
- COPILOT'S STATIC

# Pitot/Static System

## Citation II and SII



## Pitot/Static System

An electrically heated pitot tube on each side of the aircraft nose supply ram air pressure to the flight instruments, pressurization, autopilot, and landing gear warning systems.

The left pitot tube supplies the:

- pilot's Mach/airspeed indicator
- Mach/airspeed switch
- air data computer (**late model Citation I, Citation II and SII**).

The right pitot tube supplies the:

- copilot's Mach/airspeed indicator
- autopilot (**Citation only**)
- landing gear airspeed warning switch (**Citation II units 627 and subsequent; SII only**).

Static air sources include two dual static ports on either side of the aircraft nose. Each dual port contains a static air pressure source for the pilot's and copilot's pitot/static systems.

The pilot's static system supplies the pilot's:

- Mach/airspeed indicator
- Mach/airspeed switch
- altimeter (**Citation and early Citation I**)
- vertical speed indicator (VSI)
- air data computer (**late model Citation I, Citation II and SII**)
- cabin differential pressure gage (**Citation and Citation I**).

The copilot's static system supplies the copilot's:

- Mach/airspeed indicator
- altimeter
- vertical speed indicator (VSI)
- landing gear airspeed warning switch (**Citation II units 627 and subsequent; SII only**)
- cabin differential pressure gage (**Citation II and SII**).

## Automatic Flight Control Systems

Automatic flight control systems (AFCS) combine the functions of an autopilot, flight director, yaw damper, and elevator trim system to provide automatic flight path and attitude control through the pitch, roll, and yaw axes. Various subsystems of a typical AFCS include:

- air data computer (ADC)
  - pilot's altimeter
  - transponder (altitude reporting)
  - altitude alerting system
  - vertical navigation system
  - optional flight data recorder (FDR)
  - flight management system (FMS).
- autopilot system
- flight director system
- flight instrumentation
- navigation sensors.

Supplied with inputs from these subsystems, the AFCS generates the appropriate pitch, roll, and yaw commands or cues to fly the aircraft from its actual attitude to a desired attitude.

## **SPZ-500**

The Honeywell SPZ-500 automatic flight control system (AFCS) combines the functions of an autopilot, flight director, yaw damper, and elevator trim system to provide automatic flight path and attitude control through the pitch, roll, and yaw axes. Various subsystems of the SPZ-500 AFCS include:

- air data system
- autopilot system
- flight director system
- flight instrumentation
- attitude and heading reference system.

Supplied with these inputs, the AFCS generates the appropriate pitch, roll, and yaw commands or cues to fly the aircraft from its actual attitude to a desired attitude.

## **EFIS**

The standard electronic flight instrumentation system (EFIS) consists of:

- pilot's electronic attitude director indicator (EADI) and horizontal situation indicator (EHSI)
- symbol generator
- display controller
- instrument remote controller

One option adds a multifunction display (MFD) that has the capability to display radar and/or navigation information. The MFD can also display EHSI information if that display fails. The MFD symbol controller can also replace a failed EFIS symbol generator.

Another option is a five tube EFIS that consists of:

- pilot's EADI and EHSI
- copilot's EADI and EHSI
- MFD
- pilot's, copilot's, and MFD symbol generators
- two display controllers.

