



## STALL WARNING AND PROTECTION SYSTEM

The SWPS is composed of one computer box with two independent channels, the SWPS panel, two Angle of Attack (AOA) sensors and one stick pusher actuator.

To avoid spurious actuation, the SWPS receives signals from many airplane systems, thus adjusting its set point according to flaps, landing gear position, icing conditions and Mach number.

Each Stall Warning and Protection Computer (SWPC) channel receives information from its associated AOA sensor and sends it to the opposite channel in order to compensate for side slip influence on angle of attack measurements. If a stall condition is imminent, the stall warning annunciation is performed as follows:

- An aural warning to inform the crew that the airplane is approaching the stall condition;
- An airspeed tape visual indication on both PFDs provides low speed awareness to the crew.

If no corrective action is taken and the airplane is in the imminence of entering a stall, the stick pusher is actuated, which pitches the nose down. When the airplane reaches 0.5 g, the stick pusher is inhibited, stopping its actuation over the control column. A quick disconnect button is provided on the control wheel to permit pilots to cut the system if the need arises. To disconnect the system in case of failure, the SWPS panel provides one cutout button for both channels. The CAS messages are presented to indicate that the system has failed or is cutout.

## SYSTEM INHIBITION

The stall warning does not actuate on the ground (except during test).

The stick pusher does not actuate in the following conditions:

- On the ground (except during test);
- Below 0.5 g;
- If the quick disconnect button is pressed;
- 20 seconds after takeoff;