

7.12 - VACUUM SYSTEM AND INSTRUMENTS (Figure 7.12.1)

The airplane is fitted with a vacuum system providing the suction necessary to operate the attitude indicator, the cabin pressurization and the leading edge deicing.

Vacuum system includes :

- A pressure regulator
- An ejector
- A regulating and relief valve
- A signalization microswitch
- A suction gage indicator

Compressed air necessary for the ejector to create decompressed air is taken from the power plant. The air flow is regulated before going into the ejector which creates necessary vacuum by venturi effect.

A relief valve fixed in cabin to frame C2, maintains the vacuum for pressurization and instrument systems. In case of pressure drop, a microswitch, installed in the system, indicates the failure by illuminating "VACUUM LO" warning light on the advisory panel.

ATTITUDE INDICATOR

The attitude indicator provides a visual reference of actual airplane flight attitude. An index at the top of the indicator shows bank attitude relative to the bank scale which has index marks at 10°, 20°, 30°, 60° and 90° either side of the center mark.

Pitch and roll attitudes are shown by a miniature airplane superimposed over a symbolic horizon area divided into two sections by a white horizon bar. The upper "sky blue" area and the lower "ground" area have arbitrary pitch reference lines useful for pitch attitude control.

- 1) Pressure regulator
- 2) Ejector
- 3) Valve
- 4) Regulating and relief valve
- 5) Pressure switch
- 6) Failure warning light (Figure 7.3.8)

Figure 7.12.1 (1/2) - VACUUM SYSTEM

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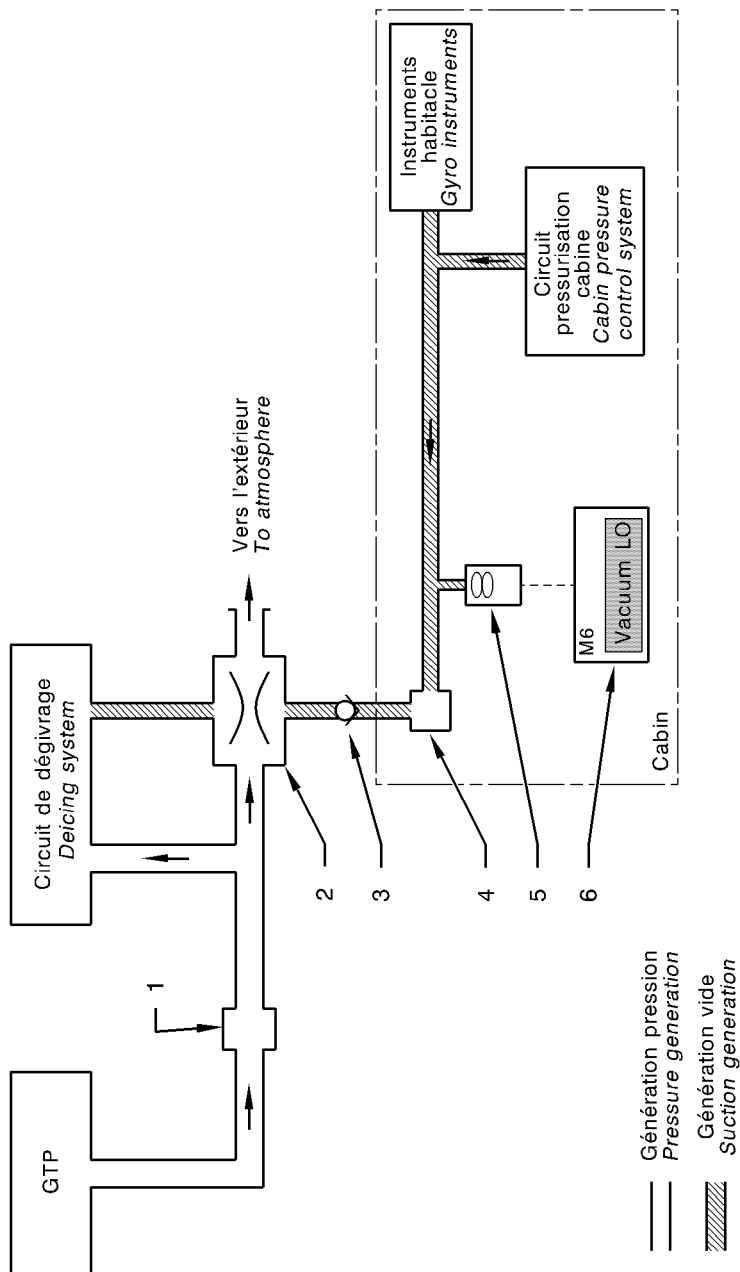
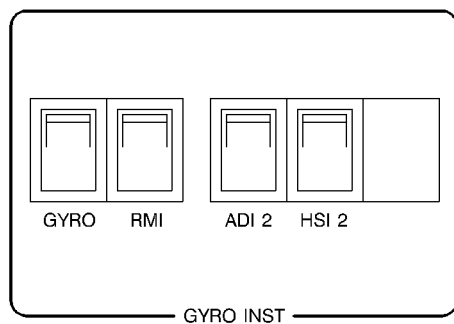
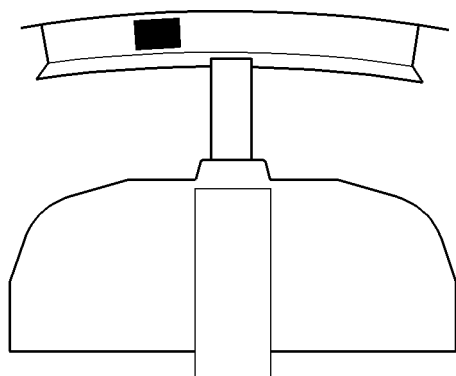


Figure 7.12.1 (2/2) - VACUUM SYSTEM



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Figure 7.12.2 - GYROSCOPIC INSTRUMENTS CONTROL

GYROSCOPIC INSTRUMENTS CONTROL (Figure 7.12.2)

Gyroscopic instruments : electrical attitude gyros, HSI, RMI, ADI, etc... are controlled by switches located on instrument panel upper strip.

SUCTION GAGE

The suction gage is calibrated in inches of mercury and indicates the suction available for operation of the attitude indicator. The desired vacuum range is 4.4 to 5.2 in.Hg.

A vacuum reading out of this range may indicate a system malfunction or improper adjustment. In this case, all pneumatic instruments should be considered unreliable.

The suction gage is located on L.H. panel of pilot's instrument panel.

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