LOW AIRSPEED AWARENESS SYSTEM - DESCRIPTION AND OPERATION
TKS Anti-Ice

1. General

A. The Low Speed Awareness (LAA) system (97.5 KIAS) is installed on airplanes that also have the TKS system installed. The LAA system is installed on airplanes that have the G1000 system installed and airplanes that do not have the G1000 system installed. The LAA system is installed on Airplanes 20800518 and On, Airplanes 208B2067 and On, and Airplanes 208B0001 Thru 208B2066 that incorporate CAB08-7. For airplanes with G1000, refer to Low Airspeed Awareness - Maintenance Practices, Figure 201, Figure 202. For airplanes without G1000 refer to Low Airspeed Awareness - Maintenance Practices, Figure 203,and Figure 204 as applicable.

B. The LAA system gives a warning to the pilot if the airspeed goes below 97.5 KIAS, +2 or - 2 knots. The LAA system has an airspeed switch (UI028), an annunciator/switch (SI033), and a logic module (UI027). The P/S HEAT/LOW A/S AWARE switch controls the electrical power supplied by the LEFT PITOT HEAT and RIGHT PITOT HEAT circuit breakers. The circuit breakers are on the left circuit breaker panel. When the P/S HEAT/LOW A/S AWARE switch is in the ON position, the LAA system has electrical power.

2. Description

A. The annunciator switch is installed in the instrument panel near the front of the pilot position. The annunciator light has two colors, white and amber. The logic module is installed behind the left circuit breaker panel. The module gives the logic to operate the warning horn and cause the annunciator to come on. The airspeed switch is installed below the dash, approximately behind the middle of the instrument panel. When the airspeed goes below 97.5 KIAS , +2 -2 knots, the airspeed switch sends a discrete signal to the logic module. The module causes the warning horn to operate and the annunciator to come on.

3. Operation

A. The P/S HEAT/LOW A/S AWARE switch gives power to the LAA system when in the ON position. When the switch is put in the ON position before takeoff, the annunciator comes on white and shows BELOW ICING MIN SPD. On airplanes that have the GFC 700 auto pilot system, the system disengages. When the airspeed is more than 97.5 KIAS, +2 or -2 knots the annunciator goes off. If the airspeed goes below 97.5 KIAS +2 or -2, the annunciator shows amber and then white each second the stall warning horn operates on and off each second and the autopilot disengages. When the airspeed goes to or is more than 97.5 KIAS +2 or -2 knots, the annunciator goes off and the horn stops operating. When the low airspeed warning stops operating, the crew can engage the auto pilot system.

B. Push the annunciator switch to set the annunciator to solid white to stop the horn operation, and to allow the autopilot to be engaged. The annunciator stays white until the airspeed is more than 97.5 KIAS, +2 or -2. If the P/S HEAT/LOW A/S AWARE switch is set to the ON position when the airspeed is more than 97.5 KIAS, +2 or -2 knots, the annunciator shows white for approximately one half a second. This shows that the LAA system has electrical power.

C. The SW/CB PNLS/ANNUN knob controls the BELOW ICING MIN SPD annunciator intensity level. There are intensity levels for the day and for the night operation. Put the knob in the correct position necessary for the operation condition.