LOW AIRSPEED AWARENESS SYSTEM - TROUBLESHOOTING TKS Anti-Ice

1. General

A. A troubleshooting chart has been provided to aid the maintenance technician in system troubleshooting. Refer to Figure 101.

A80484 Stall warning horn does not operate when the MIN SPD annunciator/switch is on and the control yoke is not full forward. WARNING: Vane can be hot. Manually close the vane on the left wing. Does the horn operate? If-YES NO Troubleshoot LAA wiring Troubleshoot stall and check the condition of fuse (HI050). Is wiring warning and pitot tube wiring. Is wiring good? Ifand fuse good? If-YES YES NO NO Repair wiring Replace the LAA Replace the LAA or replace the Repair wiring logic module (Ul027) logic module (Ul027) fuse as applicable and test again. and test again. and test again. and test again.

Figure 101: Sheet 1: Pitot-Static System Troubleshooting Chart

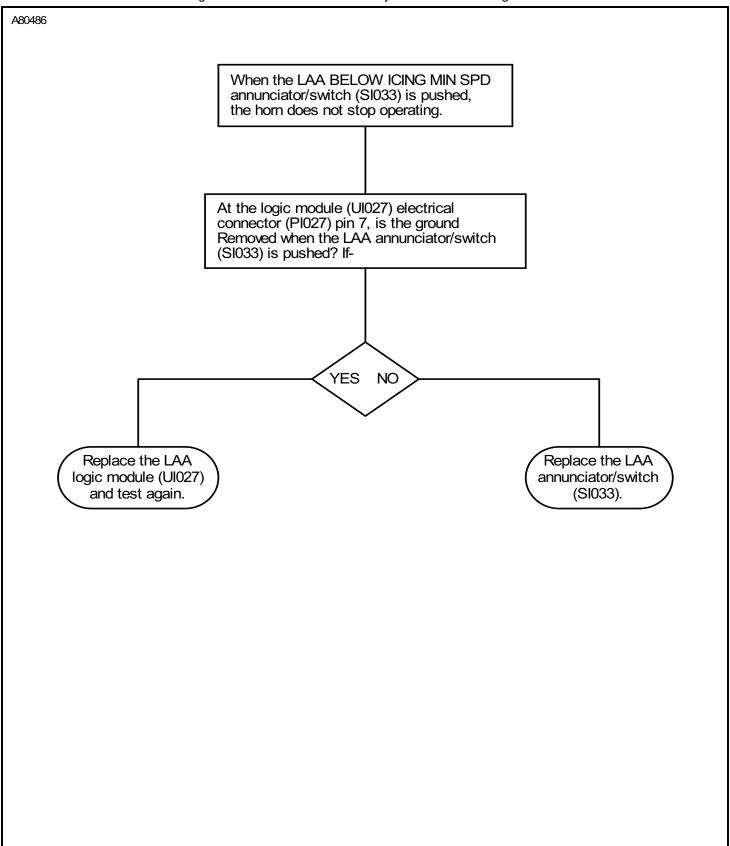
A80485 The LAA BELOW ICING MIN SPD annunciator/switch (SI033) does not come on. Is the P/S HEAT / LOW A/S AWARE switch in the ON position, the LEFT PITOT HEAT and RIGHT PITOT HEAT circuit breaker engaged, and the airspeed less than 97.5 KIAS +2 or -2 KIAS? If-YES NO Set the P/S HEAT/LOW A/S AWARE switch to Check the LAA BELOW ICING ON, engage the L and MIN SPD annunciator/switch R PITOT HEAT circuit (SI033) electrical connector (Pl033)pin A or 1, for a minimum breakers, and/or decrease of 10VDC. Ifairspeed below 97.5 KIAS, +2 or -2 KIAS. YES NO Troubleshoot the LAA wiring and check the condition of fuse Repair wiring as HI050. Is the wiring and the fuse applicable and test Correct and operational? again.

Figure 101: Sheet 2: Pitot-Static System Troubleshooting Chart

A81335 YES NO At the LAA logic module (Ul027) Repair wiring and/or electrical connector (Pl027) pin 8, check for a ground. Is there a ground? Ifreplace fuse. NO YES Replace the LAA BELOW Replace the LAA ICING MIN SPD Airspeed switch (Ul028) annunciator/switch (SI033) and test again. and test again.

Figure 101: Sheet 3: Pitot-Static System Troubleshooting Chart

Figure 101: Sheet 4: Pitot-Static System Troubleshooting Chart



A80487 The LAA BELOW ICING MIN SPD annunciator/switch (SI033) or the warning horn does not operate correctly at indicated airspeed. Do a pitot/static leak check. Refer to the Maintenance Manual Chapter 34. Is the check good? If-YES NO Use a calibrated Pitot/Static tester, make sure that the Repair the pitot/static BELOW ICING MIN SPD system and test again. annunciator goes off above 97.5 knots, +2 or -2 knots and comes on below. If-YES NO Raise the airspeed above 97.5 KIAS +2 or -2 KIAS, and lower airspeed below Trouble shoot G1000 that setting, then at the LAA airspeed system logic module electrical connector GDC 74) and test again. Pl027 pin 8, is there a ground?

Figure 101: Sheet 5: Pitot-Static System Troubleshooting Chart

A81336 YES NO At the LAA annunciator/switch (SI033) electrical connector Replace the airspeed (Pl033) pin B and pin 2, when switch (Ul028) airspeed is set above 97.5 KIAS and test again. +2 or -2 KIAS, is there a ground? YES NO Replace the LAA Replace the LAA annunciator/switch logic module (Ul027) (SI033) and and test again. test again.

Figure 101: Sheet 6: Pitot-Static System Troubleshooting Chart

A80488 Pitot tube does not heat correctly. Troubleshoot LAA wiring and check the condition of diodes (DI002 and DI003) in the left switch panel. Are the wiring and diode serviceable? If-YES NO Troubleshoot the pitot/static Repair the heater wiring. Is the wiring LAA wiring and Correct and operational? Iftest again. NO YES Repair the Replace the applicable heater wiring and LEFT or RIGHT PITOT test again. HEAT circuit breaker.

Figure 101: Sheet 7: Pitot-Static System Troubleshooting Chart