

**Installation Guidance Memorandum:**

Date: March 5, 2014

Subject: Installation Guidance for Certified KLR 10 Angle of Attack (AoA) System

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This memorandum provides guidance in properly installing the KLR 10 AoA system on certified aircraft. The KLR 10 AoA system is an approved part per the FAA approval letter stating it meets the requirements of FAA memorandum number AIR-100-14-110-PM01, 14 CFR 21.8(d), and ASTM F3011-13.

The installation may be considered a minor alteration, given the following provisions are met:

1. The system is non-required and used in an advisory or supplementary manner. The system will not be used in lieu of the airspeed indicator or aircraft stall warning system. No operational credit may be taken for the installation, such as reduced stall speeds, reduced approach speeds, reduced takeoff or landing distances, etc.
2. Accuracy of indication of stall must coincide with the stall horn, or be conservative (indicate stall at a higher airspeed) as compared to existing stall warning devices.
3. The installation of the system is on an unpressurized aircraft.  
NOTE: The installation on a pressurized aircraft may be a minor alteration; however, the installations will have to be evaluated on a case by case basis.
4. The installation of the AoA system does not require interface with the pitot-static system; the installation does not rely on direct pressure input from the pitot-static system.
5. The AoA system cannot be used as an input source to any automation or system that controls the aircraft, such as an autopilot or stick pusher unless done by STC.
6. If the system provides an aural warning, it should not be a source of nuisance warnings.
7. The installation of the AoA probe is:
  - a. On the wing:
    - i. On an inspection panel, or is substituting for an inspection panel, provided that the probe is located where it does not interfere with the functioning of a flight control surface (aileron or spoiler) and does not interfere with the pitot-static system or aircraft stall warning system.
  - b. On the fuselage of an unpressurized aircraft:
    - i. On an inspection panel, or is substituting for an inspection panel, provided that the probe is located in an area that does not interfere with pitot-static system or aircraft stall warning system.
    - ii. On an area of the fuselage that would accommodate a like installation of an antenna, and is installed in accordance with acceptable practices such as the aircraft maintenance manual or Advisory Circulars AC 43.13-1B and AC 43.13-2B.
8. The installation of the AoA probe pressure tubes and wiring does not require adding additional openings within the aircraft wing or fuselage primary structure.
9. The installation of the AoA display does not interfere with the pilot's view of the primary flight instruments.
10. The electrical load requirements of the AoA system do not exceed the total generating capacity of the aircraft when operating in conjunction with the required equipment.
11. All electrical wiring is installed in accordance with acceptable practices such as the aircraft maintenance manual or Advisory Circulars AC 43.13-1B and AC 43.13-2B.
12. The calibration procedure must be simple, and repeatable.
13. Calibration procedures, if done in flight, can be accomplished by a pilot of average skill.

**Please consult with your local FSDO for minor and major alteration guidance regarding your specific installation.**