

How to prime your TKS panels

Pilots are taught on day one of flying lessons to do a pre-flight inspection. For TKS® equipped aircraft, the pilot needs to turn the system on and make sure it is properly working. As an owner or user of the TKS Ice Protection System, this is an added and important responsibility.

CAV Ice Protection is here to help you with a step-by-step guide on how to prime your TKS Ice Protection System. We asked our Repair Station Manager, Brian Sader, to give some insight into the topic, and here are a few items to check first:

1. How long has it been since the TKS Ice Protection System was last used?
2. What is the outside temperature and what are the current weather conditions?
3. What is the fluid level in the reservoir?

Please continue reading to learn all the details.

IMPORTANT: The instructions listed in the TKS supplement of your aircraft's pilot's operating handbook should always be followed and supercede methods described anywhere else. Any questions regarding those methods and materials should be directed to the supplement's publishing authority.

Prime the TKS Ice Protection System once a month, even in warmer temperatures, to prevent from being air locked. If the system hasn't been turned on for more than 4 weeks, expect a 10-15 minute wait for the system to come up on normal operating pressure. A red light will blink on the control panel until the pressure reaches normal operating range and will then turn green. Continue to let the system run until the TKS Ice Protection System panels are completely wet. If the panels do not wet out, you may need to have them purged due to being air locked. Once the panels wet out, turn the system off knowing that it is primed and ready for the conditions in which your aircraft is certified. Similar to your fuel level, always be certain you have a sufficient quantity of TKS Ice Protection fluid in the tank to complete the intended flight.



Always prime the TKS® Ice Protection System before any flight where you may encounter ice.



Outside temperatures can affect the priming of the system. When the aircraft is on the ground in warmer times of the year, the fluid viscosity could be too low for TKS Ice Protection System to wet out fully. In this case, you will need to complete the priming once in flight where the temperatures will decrease and the fluid viscosity increase. Follow the steps to observe normal pressure on your control panel and make sure the TKS Ice Protection System panels are completely wet.

Priming the system while raining can also be a challenge, as it could be difficult to discern if the panel is wet from the TKS Ice Protection fluid or from precipitation. In this case, use the indications to observe normal pressure on your control panel.

The TKS Ice Protection System needs to be primed prior to any flight when you might encounter ice. When properly primed, the system will remove ice and prevent ice from forming.

