

DUNCAN INTELLIGENCE

KHF-950 System

•Kevin Miesbach

Are you experiencing tuning and/or garbled transmitter problems with your KHF-950 system?

Duncan Aviation has seen these issues resolved by installing the following Service Bulletins (SBs). Complying with notes in each SB regarding each of the boxes associated with your HF system can keep you from having further problems (such as failure of high-dollar power amplifiers).

KTR-953

- SB 8: To reduce transmit distortion encountered when the KTR-953 is mounted in a different location (> 3 feet) than the KAC-952.

KAC-952

- SB 9: To improve common mode rejection encountered when the KAC-952 and the KTR-953 are installed in separate locations.
- SB 10: To reduce transmitter distortion when the KAC-952 is mounted more than three feet from the KTR-953.
- SB 11: To prevent the failure of the power amplifier driver and final transistors.
- SB 13: Mod 13 to improve the tuning reliability of some shunt antennae.
- Ensure these SBs are installed together to avoid further problems.

NOTE: Remember to pull the HF Coupler circuit breaker before removing or installing your KAC-952 HF Antenna Coupler!

Contact Dan Magnus at 402.479.4217 with any questions.

Keeping Cool

•Tim Garity

With the hot nearly summer upon us, concerns about keeping the passengers and crew cool are paramount. If your cooling system just doesn't seem to be keeping up, we have a few things you can check.

Start by checking the temperature of the air coming out of the water separator. With system in Manual, full cold, and the right engine slightly above

idle, it should be about 35 degrees F. If it is much warmer, check the turbine bypass valve by removing its connector. If this makes the air colder, the 35 degree switch is probably defective. This test can also be done by pulling the auto temp circuit breaker in the cockpit.

Ineffective cooling can be caused by the cooling turbine running slow, due to low pressure output from the engines. Pressure to the cooling turbine is regulated by the Fluid Pressure Regulating Valve. Astra M/M 21-50-00, page 501 (Westwind 21-50-01, pages 501, 502), details how to check the output, which should be 22-26 PSIG, with the right engine at 90%. If this is low, but more than 16 PSIG, the Bleed Switching Valves could be at fault, and their pressures can also be checked. Refer to Astra Maintenance Manual 21-11-01, pages 501-503 (Westwind, 21-10-01, pages 501-505). Pressure should be 25-30 Psi. If the Fluid Pressure Regulator is reading 16 PSIG, check the Reference Pressure Regulator, and Pneumatic thermostat. We have found the Reference Pressure Regulators to be cracked, and failing to regulate. The Dorsal fin air inlet and heat exchanger should be checked for debris which could cause reduced cooling of the bleed air. Lastly, the cooling turbine itself can be borescoped for blade damage and the rotating group checked for high torque. Aircraft with APUs should use max airflow for best ground cooling.

Service Available Where You Are

If you find yourself in the middle of nowhere with a broken aircraft, just dial 877.522.0111, Duncan's Rapid Response Hot Line. Whether it is an engine or airframe problem, you're just minutes away from technical help, or a few hours away from having technicians arrive at your location to begin repairs to get you back in the air. This service is available 24/7, 365 days a year, for all types of aircraft that we normally service, including Astras and Westwinds.

