



Document No. 10100120-108

**Instructions for Continued Airworthiness (ICAW) for:
Butler National TSD 10100109-100 with Hardware Kit 1588,
Harness 10100109-110, and Fuel Probe Cap Assembly 10100109-160**

No specific maintenance procedures are associated with this TSD installation, other than routine inspection of each TSD, FQIS connectors and FQIS wiring, Harness, and Fuel Probe Cap, as outlined below. Service limit is 6 years or 30,000 hours, whichever occurs first. At the end of the service limit, the TSD shall be returned to Butler National for inspection and overhaul (if needed), and returned to service. The Harness shall be returned to Butler National at the same service limit for inspection and Hi-Pot testing, overhaul (if needed), and returned to service.

The following visual inspections should be conducted during each scheduled ‘C’ Check, or when auxiliary tanks are removed and reinstalled:

- Inspect the TSD for properly secured mounting, and any signs of damage.
- Inspect the FQIS-to-TSD connector for properly secured mounting, and any signs of damage.
- Inspect the visible aircraft FQIS wiring for any signs of damage, rubbing or fraying.
- Inspect the Harness and it’s connectors for properly secured mounting, and any signs of damage, rubbing, or fraying. Assure that no other wires are bundled with, or tied to, the Harness.
- Inspect the Ground Strap / Bonding Jumper for properly secured mounting, and any signs of damage, rubbing, or fraying.
- Inspect the Fuel Probe Cap, gasket, and connector for properly secured mounting, and any signs of damage.
- Inspect the wires inside the Fuel Probe Cap (between Cap and Probe) for signs of damage or deterioration of insulation.

Repair or replace, as necessary, any discrepancies found during the inspection of the above items. If the TSD, Harness or Fuel Probe Cap has damage, replace with a new unit having the identical part number.

WARNING: The TSD circuitry is designed to protect the fuel tanks. In the event of an off-scale fuel quantity indicator reading that can not be reset, it must be assumed that the TSD has performed its intended function. Remove the affected TSD, and return to Butler National for inspection / overhaul as necessary. The isolated FQIS circuit must be inspected to determine the energy source, and repaired as necessary prior to the next flight.

- Attempt to reset the Fuel Quantity Indicator, and test the FQIS, as outlined in the Manufacturer's Maintenance Manual.
- Isolate and inspect the suspect FQIS circuit to determine source of unwanted energy. After the isolated circuit has been inspected and repaired as necessary, replace the TSD with a new TSD having the identical part number.