



**Instructions For Continued Airworthiness
for
The Transient Suppression Device**

Rev A

September 8, 2000



Revisions

Revision	Date	Description
- IR	8/18/00	Instructions For Continued Airworthiness
A	9/8/00	Increased service limit from 12,500 hours to 30,000 hours and increased Service limit calendar time from 5 years to 6 years.
B	9/12/00	Added circular TSD part numbers.



INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
Installation of Butler National
Transient Suppression Devices in B-747 Airplanes

Three (3) Butler National Transient Suppression Devices (TSD) are installed by this STC in Boeing 747-100, -200, -300, -SR, and -SP airplanes. One TSD is installed in the left wing and one in the right wing at the Fuel Quantity Indicating System (FQIS) connectors located on the forward face of the Forward wing spar near the wing root. The third TSD is installed on the aft face of the Center Wing Tank located in the left body gear wheel well. No structural modifications are required to install the TSDs.

No specific maintenance procedures are associated with this TSD installation, other than routine inspection of the TSDs, FQIS connectors and FQIS wiring, as outlined below. Service limit is limited to 6 years or 30,000 hours, whichever occurs first. At the end of the service limit, the TSD may be returned to Butler National for inspection and overhaul, and returned to service.

The TSD part number for the Center Wing Tank is 840037-108

The TSD part number for the Left Wing tank is 840037-112.

The TSD part number for the Right Wing tank is 840037-113.

The TSD part number for the Center Wing tank is 840147-108.

The TSD part number for the Left Wing tank is 840147-112.

The TSD part number for the Right Wing tank is 840147-113.

1.) Abnormal Fuel Quantity Indicator Readings:

If one or more fuel gauges indicates an off-scale reading in either the full or empty direction:

- Circuit Breakers – Check to verify that applicable circuit breakers are pushed in. Reset circuit breakers as necessary.
- Gages Press to Test Button – Test to verify operation of fuel indicators, total fuel and gross weight readouts, as specified in the Boeing Operations Manual.

If system failure persists, remove and test gauge(s) to verify proper operation. If faulty, replace gauge(s) and re-test system.

If gauges test normally, remove and test the applicable TSD, using Butler National TSD Test Box, PN 1000082. Utilize TSD Test Procedures included with the TSD Test Box.

WARNING: The TSD circuitry is designed to protect the fuel tanks. If the TSD does not test properly, it must be assumed that the TSD has performed its intended function. The isolated FQIS circuit must be inspected to determine the energy source, and repaired as necessary prior to the next flight.



- If the TSD tests properly, re-install and continue testing the FQIS, as outlined in the Boeing Maintenance Manual.
- If the TSD does not test properly, isolate and inspect the protected 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.

2.) The following visual inspections should be conducted during each scheduled 'B' Check:

- Inspect the TSD for signs of external damage to the housing.
- Inspect the FQIS connector for damage and proper security.
- Inspect the visible FQIS wiring attached to the connector for signs of damage or fraying.

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

3.) Every Six (6) Years or 30,000 Flight Hours – Remove and replace the TSDs with new or overhauled units.

***** END *****