



# OPERATION MANUAL

## PSDA300-1 FUEL QUANTITY TEST CABLE

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E6-0780-0A (CD)  
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400 New Century Parkway – New Century, Kansas – 66031  
Telephone: (800) 237-2831 / (913) 764-2452 Fax: (913) 782-5104  
[www.aeroflex.com](http://www.aeroflex.com)



## ELECTROSTATIC DISCHARGE GENERAL WARNINGS FOR ALL EQUIPMENT

**CAUTION:** THIS EQUIPMENT MAY CONTAIN ELECTROSTATIC DISCHARGE (ESD) SENSITIVE COMPONENTS. TO PREVENT ESD SENSITIVE EQUIPMENT FROM POSSIBLE DAMAGE, OBSERVE THE FOLLOWING PRECAUTIONS WHEN HANDLING ANY ESD SENSITIVE COMPONENTS, OR UNITS CONTAINING ESD SENSITIVE COMPONENTS:

- a. Maintenance or service personnel must be grounded through a conductive wrist strap, or a similar grounding device, using a 1 M $\Omega$  series resistor for equipment protection against static discharge, and personal protection against electrical shock.
- b. All tools must be grounded (including soldering tools) that may come into contact with the equipment. Hand contact will provide sufficient grounding for tools that are not otherwise grounded, provided the operator is grounded through an acceptable grounding device such as a wrist strap.
- c. Maintenance or service of the unit must be done at a grounded, ESD workstation.
- d. Before maintenance or service of the equipment, disconnect all power sources, signal sources, and loads connected to the unit.
- e. If maintenance or service must be performed with power applied, take precautions against accidental disconnection of equipment components. Specifically, do not remove integrated circuits or printed circuit boards from equipment while the equipment has power applied.
- f. All ESD sensitive components are shipped in protective tubes or electrically conductive foam. The components should be stored using the original container/package when not being used or tested. If the original storage material is not available, use similar or equivalent protective storage material.
- g. When ESD sensitive components are removed from a unit, the components must be placed on a conductive surface, or in an electrically conductive container.
- h. When in storage or not being repaired, all printed circuit boards must be kept in electrically conductive bags, or other electrically conductive containers.
- i. Do not unnecessarily pick up, hold, or directly carry ESD sensitive devices.

Failure to comply with these precautions may cause permanent damage to ESD sensitive devices. This damage can cause devices to fail immediately, or at a later time without apparent cause.

**REVISION HISTORY BY DRAWING NUMBER**

MANUAL: PSDA300-1 Fuel Quantity Test Cable

REVISION: 0 – March 13, 2007

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Section 1	00		

## SECTION I GENERAL INFORMATION

### 1.1 INTRODUCTION

This manual provides operational information for the Aeroflex PSDA300-1 Fuel Quantity Test Cable.

### 1.2 EQUIPMENT SUPPLIED

PART NUMBER	DESCRIPTION
55-0780-00	FUEL QUANTITY TEST CABLE
55-0780-01	CABLE, LEVEL SENSOR, PASA310-2
55-0780-02	CENTER TANK ADAPTER CABLE
55-0780-03	SOURIAU TANK ADAPTER CABLE

### 1.3 EQUIPMENT DESCRIPTION

Figure 1-1 shows the test set.

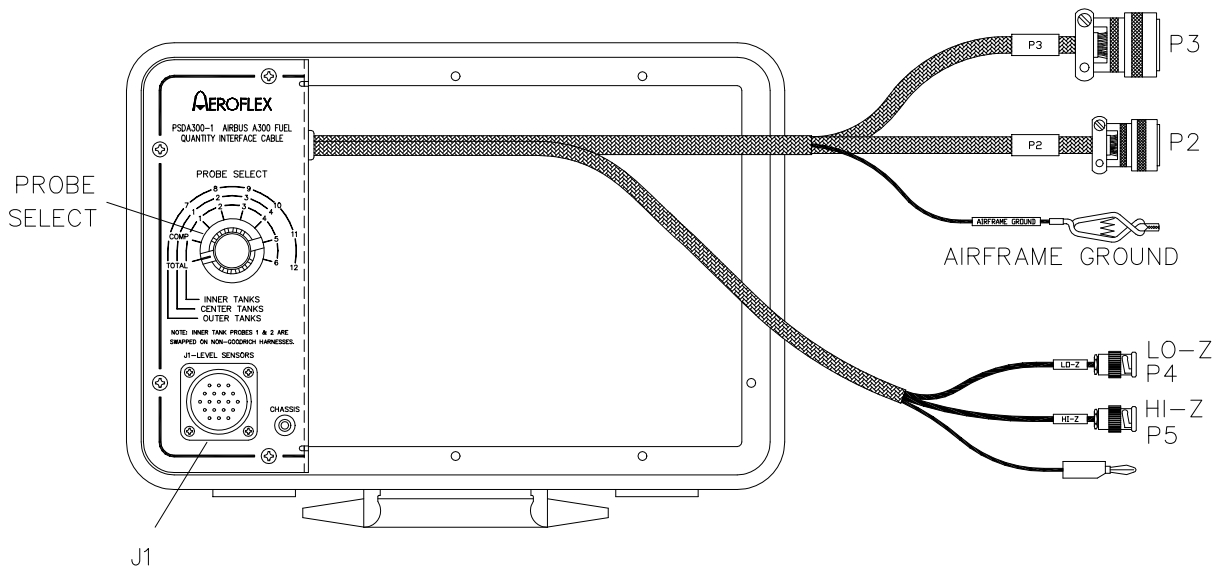


FIGURE 1

### 1.4 UNPACKING AND INSPECTING EQUIPMENT

Exercise extreme care when unpacking the unit. Make a visual inspection of the unit for evidence of damage incurred during shipment. If a claim for damage is to be made, save the shipping container to substantiate the claim. When the equipment has been unpacked, return all the packing material to the container for future use in storing or shipping of the equipment. Remove any protective covers from connectors before using the equipment. Replace any covers on the connectors after using the PSDA300-1.

## 1.5 SPECIFICATIONS

Physical Characteristics	
Dimensions:	10.6" X 14" X 6.5" (26.9 cm X 35.6 cm X 16.5 cm)
Weight:	7.7 lbs (3.5 kg)
Operating Temperature:	-40 °C to +55 °C
Storage Temperature:	-51 to +71 °C
Humidity (Non-Condensing):	90% maximum for 0 °C to 28 °C 80% maximum to 31 °C, decreasing linearly to 50% at 40 °C
Operating Altitude:	15000 ft. (4600 m) maximum
Storage Altitude:	15000 ft. (4600 m) maximum

## 1.6 RECOMMENDED CALIBRATION CYCLE

1 year

## 1.7 OPERATION

- I. TO MEASURE CAPACITANCE OF EACH PROBE, THE COMPENSATOR, OR THE TOTAL TANK AT THE WING SPAR (OR WHEEL WELL FOR CENTER TANK).
  1. Extend trailing edge flaps and ensure that flaps cannot be retracted during test.

**CAUTION:**

**FLAPS ARE FAST-ACTING AND CAN CAUSE SERIOUS INJURY OR DEATH.**

2. Turn PSD60-2R tester ON. Allow minimum 3-minute warm-up before using.
3. Connect PSDA300-1 banana-plug ground lead to PSD60-2R CHASSIS jack.
4. Plug tester ground lead into banana-plug at CHASSIS jack and connect to clean, bare airframe ground or ground strap.
5. Connect HIZ lead from PSDA300-1 to TANK UNITS HIZ SHLD terminal on from of PSD60-2R tester.
6. Connect LOZ lead from PSDA300-1 to TANK UNITS LOZ terminal on tester.
7. Connect PSDA310-2 to PROBES connector on PSDA300-1 using umbilical cable provided with PSDA310-2 interface unit.

**CAUTION:**

**USE EXTREME CAUTION IN DISCONNECTING AND CONNECTING AIRCRAFT WIRING PLUG AND TESTER "PROBES" CONNECTOR. ALIGN MAIN KEYWAY AND CAREFULLY ENGAGE INTERFACE UNIT MATING CONNECTOR TO AVOID DAMAGE TO AIRCRAFT TANK CONNECTOR.**

8. Carefully disconnect the probe access and compensator access connectors at the tank wall (access is on the forward bulkhead, right side of the wheel-well for the center tank).
9. Carefully connect COMP connector from PSDA300-1 to compensator connector at tank-wall.
10. Carefully connect PSDA300-1 PROBES connector to probes connector at tank-wall.
11. Rotate FUNCT switch on PSD60-2R tester to MEASURE EXT position.

## **1.8 MAINTENANCE INFORMATION**

Maintenance information is available in the PSDA300-1 Maintenance Manual (C6-0780-0A for hard copy, E6-0780-0A for CD) available separately from Aeroflex.

For more info, please contact [americas.service@aeroflex.com](mailto:americas.service@aeroflex.com).