

**AIR DATA ACCESSORIES KIT**  
**MODEL No. LEG500-945**  
**EMBRAER LEGACY 450/500**  
**&**  
**EMBRAER PRAETOR 500/600**  
**AIRCRAFT**  
**For Standard & RVSM Testing**



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**- Proprietary Information -**

This kit contains all test adaptors and hoses required to connect the Air Data Test Set (ADTS – GSE040) to the Air Data System Probes (ADSP) to accommodate the performance of tests on the air data systems of the Legacy 450/500 and Praetor 500/600 aircraft and can serve the Oxygen Flow Test. This as per the relevant Embraer Aircraft Maintenance Manual (Maintenance Practices).

**Test Adaptors accommodating the ADSP on Left- and Right-Hand Side Fuselage:**

The Test Adaptors have been designed to fit Goodrich Probes P/N 0857DC1.

For the purpose of connecting the test hoses to the ADSP test adaptor on each side of the fuselage, two test adaptor configurations are included in this Air Data Accessories Kit. One test adaptor P/N matching the left side (L) aircraft nose area, and another P/N for the right side (R).

Short Test Hoses with Quick Disconnect Fittings are pre-connected to the test adaptors and stowed in the Carrying Case.

It is best to install the test adaptors together with these short hoses on to the probes first, - then connect the required long test hose assemblies to the relevant labeled test adaptor fittings.

Note: The drain hole located on the ADSP is automatically covered and sealed by the installation of the test adaptor on the ADSP.

**Test Adaptor for ADSP LH**

**Part No. APA97500HTL-4-4-4-4 (2 req'd)**

For installation on ADSP located on left nose section of aircraft.

**Test Adaptor for ADSP RH**

**Part No. APA97500HTR-4-4-4-4 (2 req'd)**

For installation on ADSP located on right nose section of aircraft.

**Pre-Test Probe for ADSP**

**P/N PT421-7500 (4 req'd)**

When it becomes necessary to test the integrity of the test adaptor, hoses and ADTS, this unit is installed into the adaptors thus simulating the ADSP.

With air data pressure from the ADTS, a leak check of test adaptor, test hoses and ADTS can be performed.

**Pitot Test Hose Assembly PT**

**Part No. LEG-7270RVSM (1 req'd)**

This hose assembly is connected to each pitot inlet (PT) of the test adaptors, - as per the relevant Embraer Legacy 500 or 450 Aircraft Maintenance Manual (Maintenance Practices).

Self-sealing, double acting quick disconnect fittings are incorporated in the hose assembly to permit different test configurations and trouble shooting.

**Static Test Hose Assembly PS1**

**Part No. LEG-5160RVSM (1 req'd)**

This test hose assembly is connected to each static inlet (PS and PA1) of the test adaptors, - as per the relevant Embraer Aircraft Maintenance Manual (Maintenance Practices).

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Self-sealing quick disconnect fittings are incorporated in the hose assembly.

#### **Static Test Hose Assembly PS2**

##### **Part No. LEG-4059RVSM (1 req'd)**

This hose assembly is connected to each static inlet (PA2) of the ADSP test adaptors, - as per the relevant Embraer Aircraft Maintenance Manual (Maintenance Practices). Self-sealing double acting quick disconnect fittings are incorporated in the hose assembly to permit different test configurations and trouble shooting.

#### **Hose Suspension Assembly**

##### **Part No. 532-8971DBM (2 req'd)**

These units are installed on the fuselage skin below the lower ADSP and below the Test Hose "T" on each side of the aircraft, - to hold the weight of test hoses.

#### **Seal Kit for ADSP Test Adaptor**

##### **Part No. SK7500HT (2 req'd)**

Two sets of spare seals are stowed in a plastic container.

Seals inside the ADSP test adaptor can be exchanged by removing the circlip located inside the body of the test adaptor. The circlip is removed by inserting a pin tool into the small hole located just aft of the compression nut and pushing it out of its seat. The spacers and seals can then be removed from inside the adaptor.

The seals are exchanged and placed in the exact same location and sequence between the spacers.

Note: The tapered alpha seal in the test adaptors is exchanged by pulling it off from its

seat, cleaning the seat free of glue and residues, then installing the new seal with the use of Sealant P/N CA8 by 3M or equivalent.

The compression nut and circlip are then reinstalled.

The integrity of the test adaptor is verified by applying ADTS air data pressure to the ADSP test adaptor inlets with the Pre-Test Probe installed.

A Seal Replacement Tool Kit, P/N 421-ASTK is included and stowed in this Air Data Accessories Kit.

#### **Tool Kit – Seal Exchange**

##### **Part No. 421-ASTK (1 req'd.)**

This kit contains the necessary tools to assist in the seal replacement inside the test adaptor. Instructions on how to change seals are included in the kit.

#### **Lubricating Fluid**

##### **Part No. LF5050 (1 req'd)**

This fluid is used to lubricate the glands of the pitot & dual static and pitot static test adaptors.

Only a very small amount is needed to lubricate the adaptor's interior glands before installing the adaptors onto the aircraft probes.

This process will help to prolong the life of the seals as well as facilitate a smooth installation of the applicable adaptor onto the corresponding aircraft probe.

Using only 1 or 2 drops, apply a thin film coating onto the surface of the applicable Pre-Test Probe(s).

Then, while using a slight CW/CCW rotation, insert the Pre-Test Probe into the adaptor when setting-up for the 'Pre-Test' stage of the

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ADTU before hooking up to the aircraft's probes.

**WARNING: Nav-Aids Ltd. ® P/N LF5050, Lubricating Fluid, is the only approved lubricant for this purpose. The use of any other substance may very well have adverse effects that could contribute to a Flight Safety Hazard.**

**Manual**

**Part No. 444-LEG500-945 (1 req'd)**

This manual contains outline drawings and parts lists for test adaptors and schematics of the pitot and static hose assemblies contained in this Air Data Accessories Kit.

**Carrying Case**

**Part No. NANUK968-LEG500-945 (1 req'd)**

All of the foregoing listed equipment is contained in this carrying case lined with formed foam dunnage. The case stores all test adaptors, test hoses and accessories in an orderly fashion.

**Customer Support**

For information or to order replacement parts for this kit, contact:

**Nav-Aids Ltd.**  
**2955 Diab Street**  
**Montreal, QC.**  
**H4S 1M1**  
**Canada**

**Tel: + 1 514 332-3077 (International)**  
**Toll Free: 877-332-3055 (USA and Canada)**  
**Fax: 1 514 332-6711**

**E-mail: [info@navaidsltd.net](mailto:info@navaidsltd.net)**

**Website: [www.navaidsltd.net](http://www.navaidsltd.net)**