

**AIR DATA ACCESSORIES KIT  
MODEL No. ERJ170/190-946  
EMBRAER ERJ170 & 190  
AIRCRAFT**

**For Standard & RVSM Testing**

## **AIR DATA ACCESSORIES KIT MODEL No. ERJ170/190-946 EMBRAER ERJ170 & 190 AIRCRAFT For Standard & RVSM Testing**

### **Description**

This kit contains all test adaptors and hoses required to connect the Air Data Test Set (ADTS - GSE144) to the Air Data System Probes (ADSP) of the aircraft for the performance of tests on the main and stand-by air data systems of the ERJ 170 and 190 aircraft, as per the relevant Embraer Aircraft Maintenance Manual (Maintenance Practices).

### **Other Testing**

This ERJ170/190-946 kit also contains all test adaptors and hoses required to perform an air data test to:

- Reduced Vertical Separation Rules (RVSM) Standards.
- Cabin Differential Pressure Valve.
- Cabin Pressure Altimetric Module (CPAM).
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### **Test Adaptor for ADSP**

#### **Part No. APA97632M1-3-4-4 (4 req'd)**

These test adaptors have been designed to fit Goodrich Probes P/N 0857 CU.

It is best to connect the required test hoses to the fittings of the test adaptors prior to the installation of the test adaptor on to the ADSP.

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

### **Pre-Test Probe for ADSP**

#### **P/N PT421-632 (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.

### **Pitot Test Hose Assembly PT**

#### **Part No. ERJ-PT RVSM (1 req'd)**

This hose assembly is connected to each pitot inlet (PT) of the 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.

### **Static Test Hose Assembly PS1/PS3**

#### **Part No. ERJ-PS1/3 RVSM (1 req'd)**

This hose assembly is connected to each static inlet (PS1 and PS3) of the 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.

### **Please Note:**

For ADTS with Single Channel Static Outlets, the static test hose assembly contained in this kit, P/N **ERJ-PS1/3 RVSM**, has a quick disconnect fitting incorporated into the test hose leading to the ADTS.

This provision allows the connection of the PS2 test hose assembly into the PS1/3 test hose assembly as per the relevant Embraer Aircraft Maintenance Manual (Maintenance Practices).

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**Static Test Hose Assembly PS2**

**Part No. ERJ-PS2 RVSM (1 req'd)**

This hose assembly is connected to each static inlet (PS2) of the test adaptors as per the relevant Embraer Aircraft Maintenance Manual (Maintenance Practices) and the ADTS Static 2 outlet (or for single channel ADTS (GSE 144) to the Static Test Hose Assembly PS1/PS3).

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

**Static Test Adaptor - Cabin Differential Pressure Valve Static Port**

**Part No. S34146-4 (1 req'd)**

This adaptor attaches to the static port at the rear fuselage of the aircraft. To mount the adaptor properly, be sure the pressure seal on the test adaptor is retracted slightly prior to installation on the aircraft.

The large knurled nut controls the forward and retracting action of the seal.

It is advisable to attach the hose to the test adaptor fitting prior to installation on the aircraft.

**Test Hose - Static Port Cabin Differential Pressure Valve Part No. ERJ-CDP (1 req'd)**

This hose is designed to connect the ADTS (GSE144) Static Outlet to the Cabin Differential Pressure Valve located in the aft fuselage, as per the relevant Embraer Aircraft Maintenance Manual (Maintenance Practices).

**Cabin Pressure Altimetric Module (CPAM) - Test Hose and Module Connector Assembly**

**Part No. CPAM-532 (1 req'd)**

This hose is designed to connect the ADTS (GSE144) static outlet to the Cabin Pressure Altimetric Module (CPAM) located in the forward left fuselage, as per the relevant Embraer Aircraft Maintenance Manual (Maintenance Practices).

**Seal Kit for ADSP Test Adaptor**

**Part No. SK7632 (2 req'd)**

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

The 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 in 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. The circlip is then reinstalled.

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

For the two Static Port Pick-ups on the ADSP test adaptors, the seals are exchanged by pulling the seal off from its seat, cleaning the seat of glue and seal residues, then reinstalling the new seal with the use of Sealant, P/N 3M CA8.

A Seal Exchange Tool Kit, P/N 421-ASTK is available from Nav-Aids Ltd.



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**Seal for Cabin Differential Pressure Valve -  
Static Port Test Adaptor**

**Seal – Part No. S341-61 (1 req'd)**

One spare seal for the static test adaptor, P/N S34146-4, is stowed in a plastic container.

**Hose Suspension Arm**

**Part No. 532-8971DB (4req'd)**

These units are used to suspend hoses relieving the weight on the test adaptors.

**Lubricating Fluid**

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

This fluid is used to lubricate the seals inside the ADSP test adaptors.

For the ADSP test adaptors, it is recommended, that a small amount of lubricating fluid be placed on the pre-test probe before adaptors are installed on the ADSP tube.

The pre-test probe is inserted into the ADSP test adaptor and then retracted. This action will ensure smooth test adaptor installation on to the ADSP probe and will keep the test adaptor seals moist.

**Manual**

**Part No. 444-ERJ170/190-946 (1 req'd)**

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

**Carrying Case**

**Part No. 129XD-ERJ170/190-946 (1 req'd)**

All of the foregoing listed equipment is contained in this aluminum carrying case, which is lined with formed dunnage to store and/or transport the adaptors and hoses in an orderly fashion.