

SmartProbe Pitot Adapter & Air Data Isolation Manifold Operating Instructions

1. Attach Pitot Adapters To Pitot Probes

- A. Remove the dust cap from adapter 1 connector port and one end of Hose Set 1. Align the ridge of the adapter port with the notch on the hose connector (Figure 1).

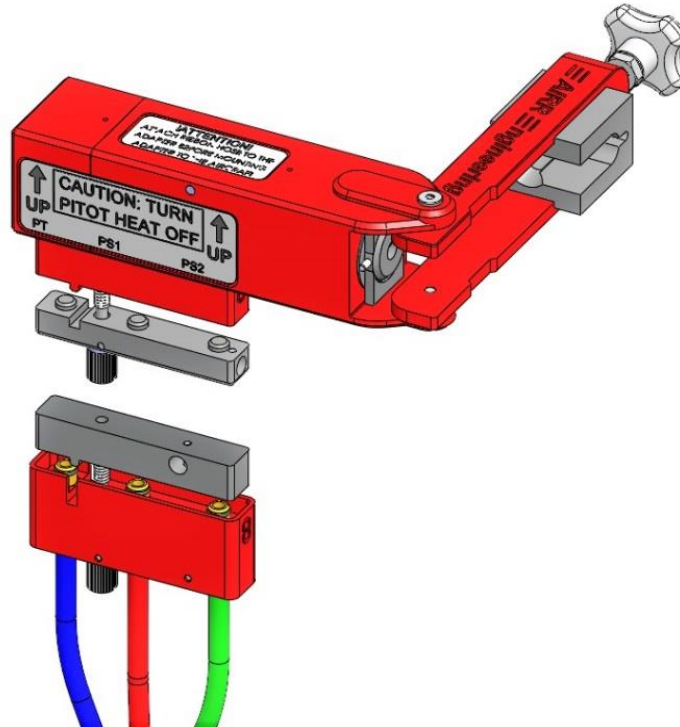


Figure 1: Ridge on Pitot adapter connector and notch on hose connector aligned

- B. Press the hose connector onto the adapter connector port and tighten the center retaining screw. Place the adapter cam handle in the open position. Retract the pusher by rotating the knob counter-clockwise until it comes to a soft stop. Remove the round black dust plug from the adapter opening (Figure 2).

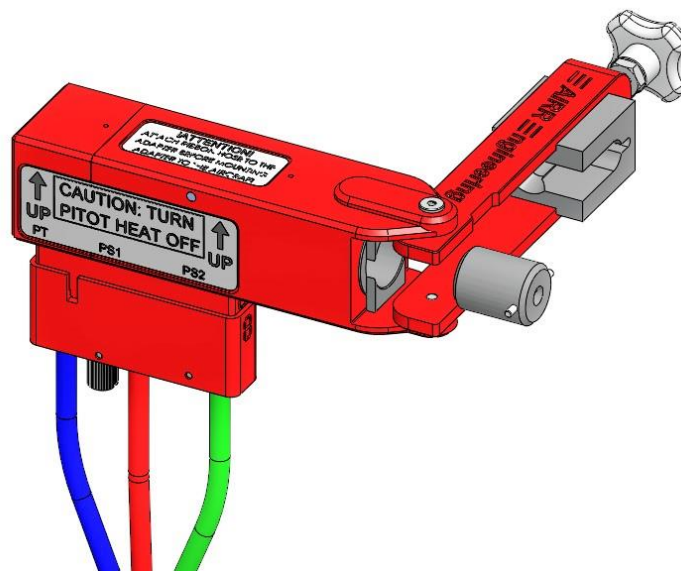


Figure 2: adapter cam handle in the open position pointing away from the fuselage, pusher retracted

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- C. **DISABLE THE PITOT HEAT** according to the aircraft manufacturer's procedure.
- D. Refer to aircraft manufacturer's procedure for proper positioning of numbered Pitot adapters.
- E. Wipe probe 1 clean and align the adapter so that the cam handle is parallel to the probe mounting vane and pointing away from the fuselage (Figure 3).

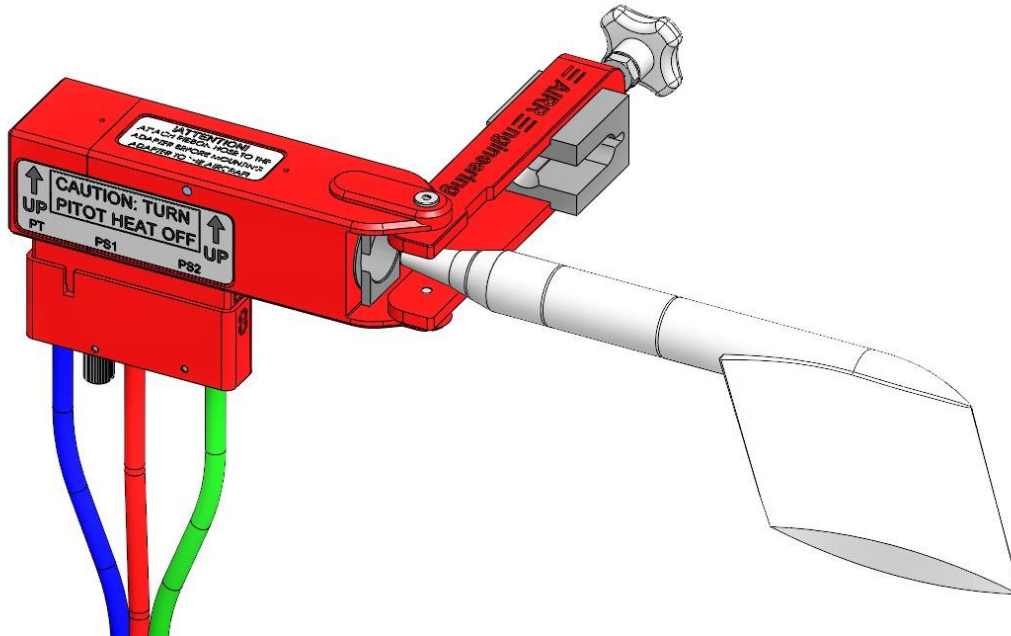


Figure 3: probe aligned

- F. Slide adapter 1 onto the probe as far as possible (Figure 4). Do not attempt to rotate the adapter on the probe once the adapter is in place.

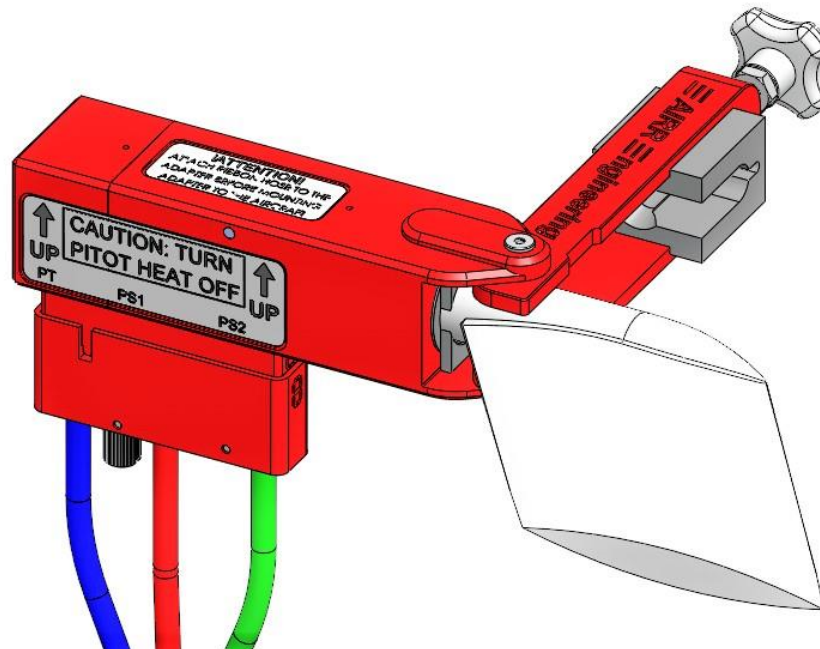


Figure 4: adapter on probe as far as possible

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G. While supporting the adapter, rotate the cam handle 90° to the inline closed position (Figure 5).

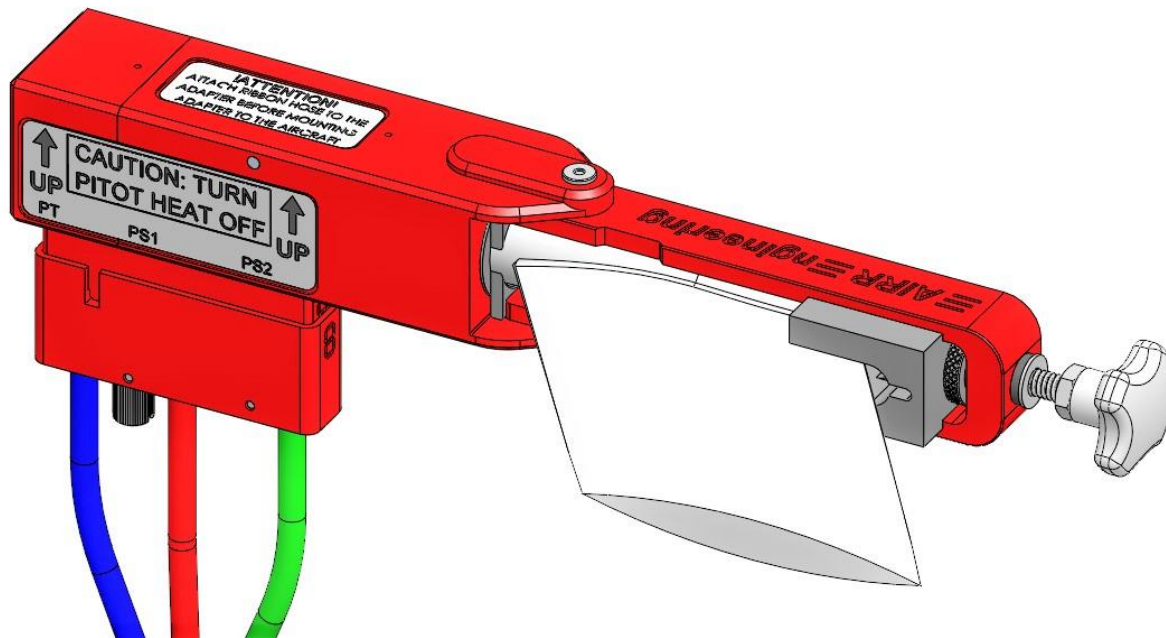


Figure 5: pusher retracted, adapter cam handle in the closed position

- H. Extend the pusher by rotating the knob clockwise until it comes to a soft stop.
- I. Hang the Pitot Saver Pitot heat safety alarms (optional accessory) on the top left and top right adapters at the location marked on the cam handle (Figure 6).
- J. Repeat steps E-H for the other adapters.

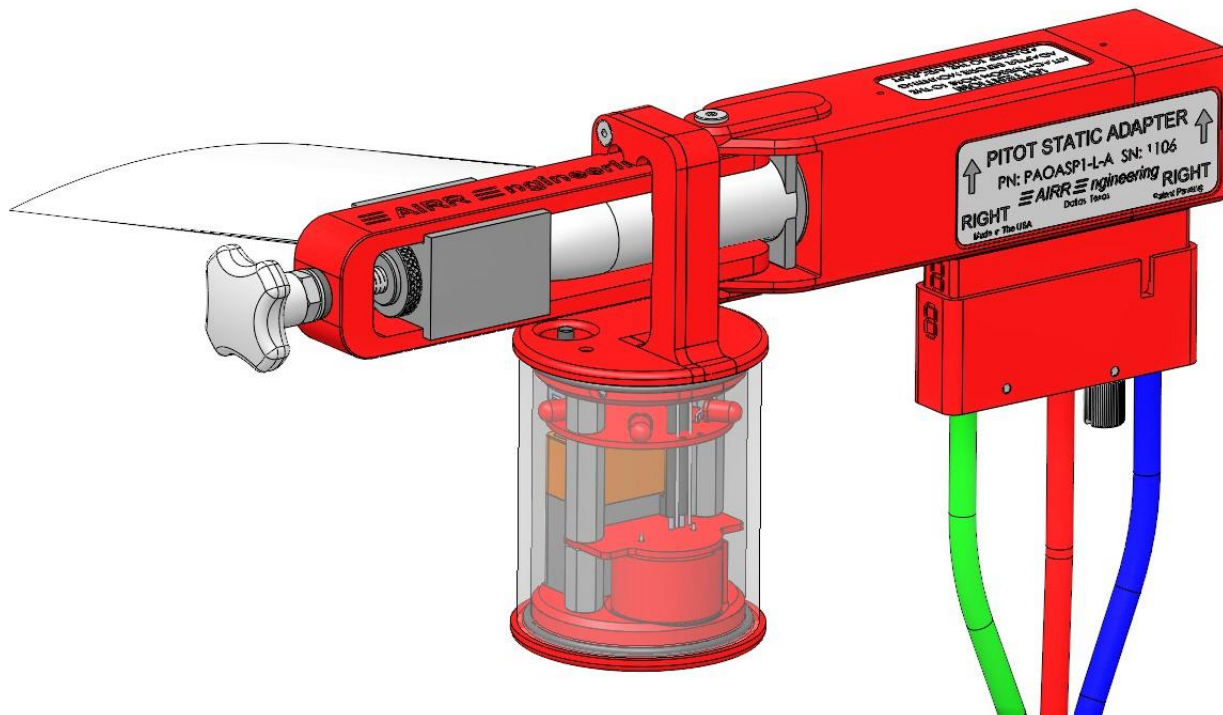


Figure 6: Pitot Saver Pitot heat safety alarm in place on top left and top right probes

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2. Connect The Manifold

- A. Place the magnetic feet of the Air Data Isolation Manifold (ADIM) on the middle of the closed kit case lid. Remove the dust cap from the ADIM.
- B. Remove the dust cap from one connector on Hose Set 1 and place the dust cap in the pocket between the red and green hoses. Align the ridge on the ADIM manifold connector port 1 with the notch on the hose connector 1 (Figure 7).

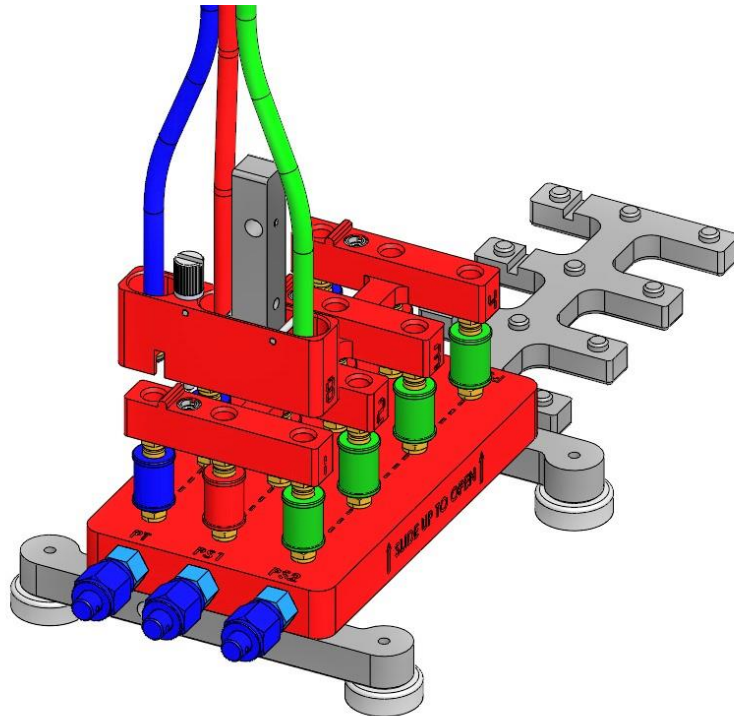


Figure 7: ridge on ADIM manifold connector and notch on hose connector aligned, dust cap in pocket

- C. Press the hose connector onto the ADIM manifold connector port and tighten the retaining screw.
- D. Repeat steps B & C for the other hose sets.

3. Aircraft Test

- A. Close all of the isolation valves on the ADIM manifold by sliding the colored valve sleeves down (Figure 8).

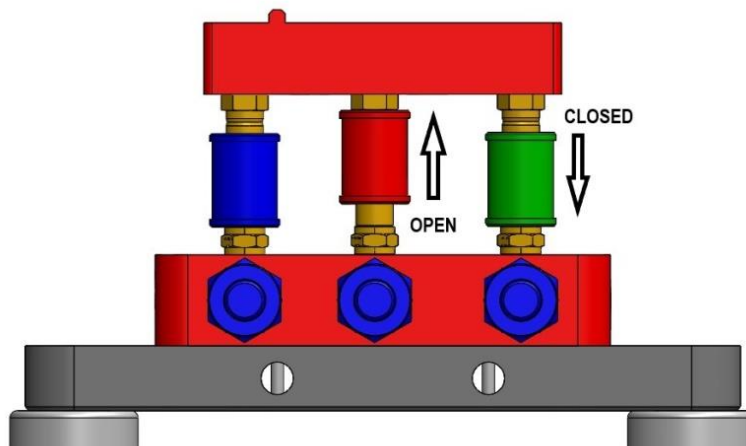


Figure 8: open vs. closed--the Red valve is OPEN, the Blue and Green valves are CLOSED

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- B. Connect the Air Data Test Set to the PT, PS1 and PS2 fittings on the ADIM manifold. Connect PS1 first for easier access to the other fittings (Figure 9).

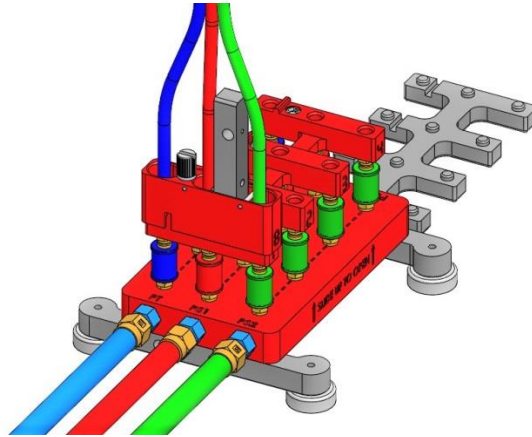


Figure 9: Air Data Test Set hoses connected

- C. Follow the Air Data Test Set leak test procedure. Resolve any leaks before continuing.
D. Open all of the isolation valves on the ADIM manifold by sliding the colored valve sleeves up (Figure 8).
E. Perform the aircraft manufacturer's test procedure. If a leak is detected during testing, close all of the isolation valves by sliding the colored valve sleeves down (Figure 8) and open them one at a time until the leaking adapter is identified. Tightening the knob on the pusher with a bit more torque may seal the adapter. Resolve any leaks before continuing. Further adapter leak evaluation is described in Section 4.
F. Upon test completion, retract the pusher by rotating the knob counter-clockwise until it comes to a soft stop (Figure 5).
G. Open the adapter cam handle (Figure 4).
H. Separate the adapter from the probe (Figure 3). Replace the dust caps and store properly.
I. Repeat F-H for the other adapters.
J. **ENABLE THE PITOT HEAT.**

4. Leak Test

- A. If all of the adapters indicate a leak, the problem is likely in the Air Data Test Set or ADIM. Otherwise, place the cam handle in the open position on the adapter in question. Retract the pusher by rotating the knob counter-clockwise until it comes to a soft stop (Figure 9).

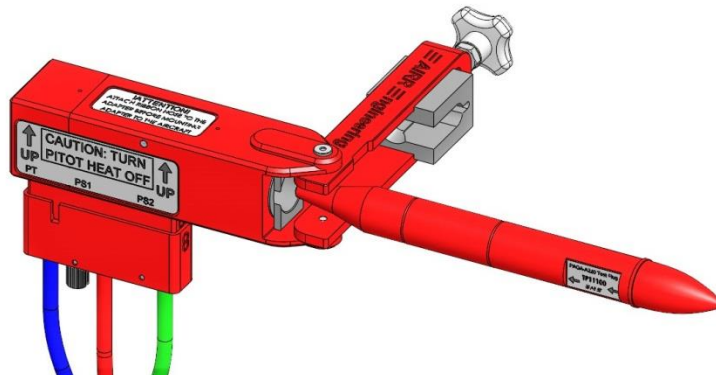


Figure 9: Pitot adapter cam handle in the open position, pusher retracted

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- B. Wipe the test plug clean. With the label arrows pointing toward the adapter, slide the test plug into the adapter opening as far as possible (Figure 10)

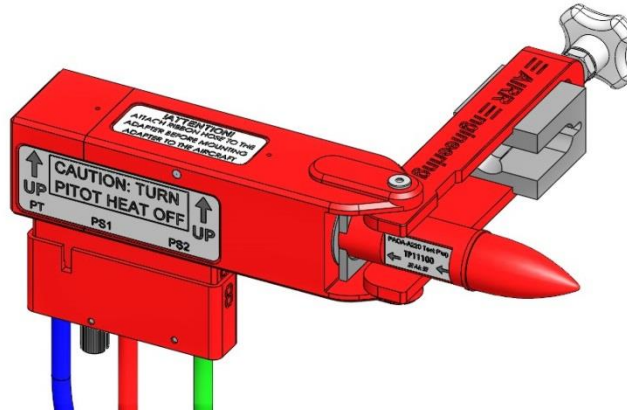


Figure 10: pusher retracted, test plug inserted (note arrows on the test plug label)

- C. While supporting the adapter, rotate the cam handle 90° to the inline closed position (Figure 11).

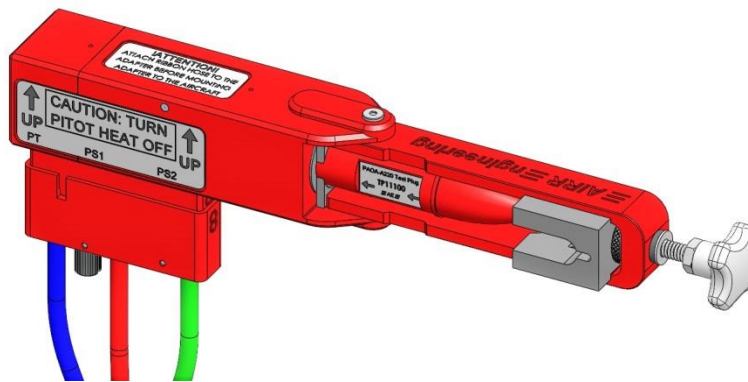


Figure 11: pusher retracted, adapter cam handle in the closed position

- D. Extend the pusher by rotating the knob clockwise until it comes to a soft stop.
E. Close all of the isolation valves on the ADIM manifold by sliding the colored valve sleeves down (Figure 8).
F. Follow the Air Data Test Set leak test procedure. Open the isolation valves on ADIM manifold station connected to the adapter in question one at a time by sliding the colored valve sleeves up (Figure 8).
G. If a leak is detected during testing, tightening the knob on the pusher with a bit more torque may seal the Pitot adapter. Resolve any leaks.
H. Retract the pusher by rotating the knob counter-clockwise until it comes to a soft stop (figure 11).
I. Open the Pitot adapter cam handle (figure 10).
J. Separate the test plug from the adapter (Figure 9) and store the test plug properly.
K. Repeat A-J for any other adapters in question.