

30.4.7.4 ADAHRS Static Pressure Calibration

The ADAHRS Calibration page (configuration mode) has a selection for ADAHRS Static Pressure Calibration. This procedure is used to perform an altimeter re-calibration. The altitude pressure sensor used in any G3X ADAHRS unit is very low drift and does not typically require re-calibration.



NOTE

This calibration is only used when an ADAHRS fails a periodic altimeter test and should only rarely, if ever, be used.

The static pressure calibration requires the use of a pressure control system (test set) with an altitude accuracy of at least +/- 5 ft at sea level and +/- 20 ft at 30,000 ft. It is necessary to re-calibrate to sea level (0 ft), 10,000 ft, 20,000 ft, and optionally to 30,000 ft. The operator is allowed to finish the calibration at the end of the 20,000 ft calibration if the 30,000 ft calibration is not desired.



CAUTION

To avoid damaging the ADAHRS pressure sensors, the pitot, AOA (for GSU 25), and static ports must be connected to the test set.

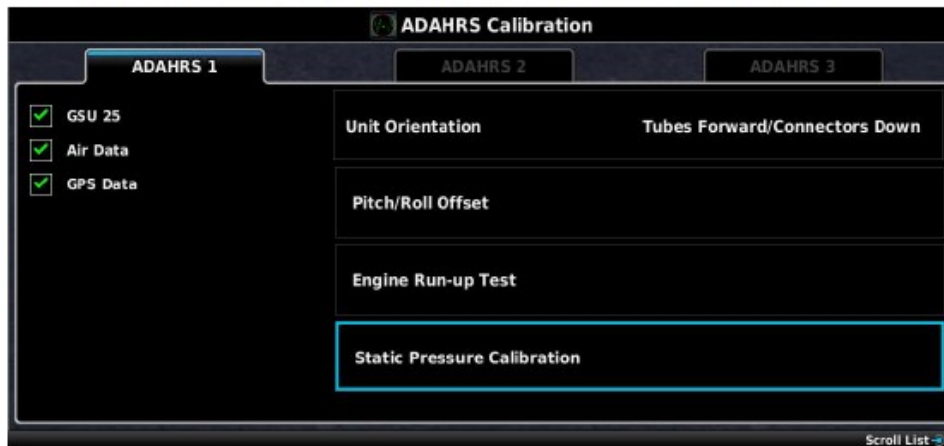
It is acceptable to connect multiple pneumatic ports together. The AOA port should typically be connected to the static port so it is always exposed to the same pressure as the static port during the test.



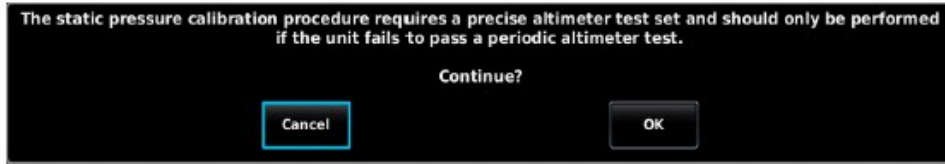
CAUTION

Leaving the AOA port disconnected and exposed to ambient pressure during the static pressure re-calibration will damage the AOA sensor.

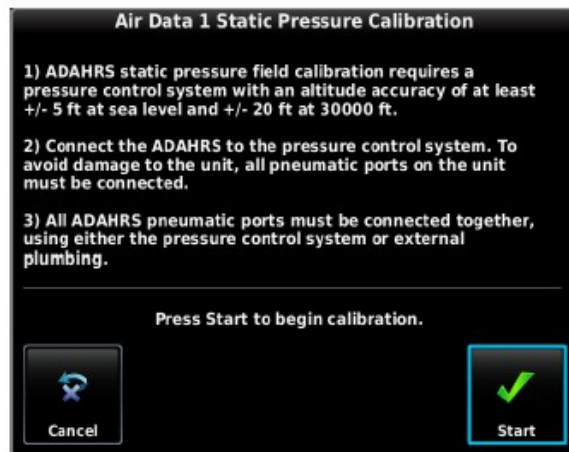
1. Power on the system and ensure that the system is in configuration mode.
2. Use the Touch Panel or a Move Selector Knob to select the ADAHRS Calibration Page.
3. Use the Touch Panel or a Move Selector Knob to select the ADAHRS (1, 2 or 3) that is being configured.
4. Use the Touch Panel or a Move Selector Knob to select Static Pressure Calibration.



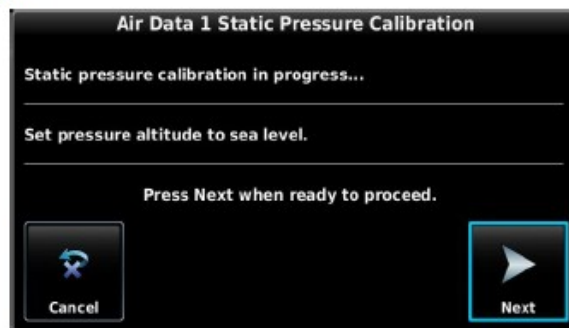
- Use the Touch Panel or a Move Selector Knob to continue or cancel the calibration.



- Make sure that all on-screen instructions have been complied with, then press the Start button to begin the calibration. Actual displayed image will be similar to following figure.



- At each calibration point (sea level, 10K, 20K, and optionally 30K ft), the display will present a screen that allows time to establish the calibration pressure before continuing. For example, the following screen is presented when it is time to establish the static pressure equal to sea level. Press NEXT to continue and calibrate this pressure. Actual displayed image will be similar to following figure.



8. During the calibration at each pressure, the pressure must be held constant for 30 seconds for the calibration step to be successful. The calibration may be cancelled at any point should the test setup require adjustment before repeating.
9. When the static pressure calibration is complete, a status screen will show the procedure was successful. Actual displayed image will be similar to following figure.

