SAE5-35 Pilot’s Guide

The SAE5-35 is an Altitude Data System that provides Grey code altitude information to transponders for Mode C operation. It also provides altitude data to avionics equipment accepting RS-232 data format. These functions are controlled by the equipment to which they are interfaced. Refer to the appropriate operators handbook for proper operating procedures.

The SAE5-35 also has SANDIA aerospace’s exclusive Altitude In-flight Monitoring (AIM) function that informs the pilot if the aircraft deviates from a selected altitude. This feature is available in all SAE5-35 systems, but requires the addition of the SANDIA aerospace annunciator/pushbutton assembly, P/N 305217-00 or a separate pushbutton switch labeled SET and two annunciators labeled ALT and SET.

To operate the AIM function, use the following procedure.

1. When you have arrived at your desired cruise altitude, press the AIM ‘SET’ pushbutton. The aircraft’s current altitude is stored in memory when the pushbutton is released. Both annunciators should illuminate for approximately one second when the button is released to test the annunciator bulbs. Do not use the AIM function if both bulbs do not briefly illuminate. After one second the ‘ALT’ annunciator will extinguish and ‘SET’ annunciator will stay illuminated, telling you that an altitude is set in the SAE5-35’s memory.

2. Should the aircraft deviate 100’ or more from your selected altitude, the ‘ALT’ annunciator will illuminate. Refer to your primary altimeter to determine if you are high or low and correct to the proper altitude. Correcting the aircraft’s altitude will extinguish the ‘ALT’ annunciator, informing the pilot that he is within 100’ of the currently selected altitude.

3. If the aircraft deviates 200 feet or more, the ‘ALT’ annunciator will flash at a rate of approximately once per second. Again, refer to the aircraft’s primary altimeter and correct to the proper altitude.

4. If you change altitudes or barometric setting in your altimeter and readjust your aircraft’s altitude, the AIM function will need to be reset. To reset the AIM, simply press the pushbutton once. This will turn the AIM function off. Then press it a second time to ‘SET’ the new altitude.

5. To turn off the AIM function, simply press the ‘SET’ pushbutton a second time. The ‘SET’ annunciator will extinguish.