

“How to” The Gauges

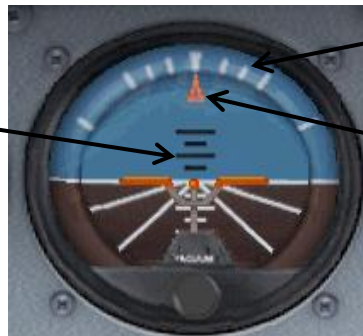
2. The ADI

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The Attitude Indicator (“Artificial Horizon”) is your main flight instrument which is why it’s often called the PFD (Primary Flight Display) in big-tin noisy aeroplanes. You need to understand what it is telling you and, equally, what it doesn’t tell you. Note: This is very simplified!

I’ve used the basic ADI out of the C172 but the principles are the same with most types

1. It tells you your aircraft’s attitude, which way which bits are pointing relative to the horizon
 1. Bank Angle – how far your wings are from level, left or right
 2. Pitch Angle – nose up or down
2. It does **NOT** tell you if you’re climbing, descending or turning. You can be ‘nose up’ yet descending and banked but not turning!



Angle of Bank
10,20,30,60,90

Bank indicator

Angle of Pitch
5, 10, 15, 20 degrees

This page explains what the instrument does tell you. The next “How To” will explain how to use this information in conjunction with the other instruments to determine precisely what your aircraft is actually doing



About 19 degrees of bank to the left with no pitch. This does not necessarily mean I am turning left, just that the aircraft’s wings are banked left



About 15 degrees left bank, nose pitched up by about 12 degrees. I might be in a left hand climbing turn but on it’s own the ADI can’t tell me that.



About 18 degrees right bank, nose down by about 10 degrees. I might be in a right hand descending turn or I might just have a bad attitude ;)



Pitched up by just over 5 degrees but in this one I was actually descending



I gotta BAD attitude!