

Altimatic IIIB
Operating Instructions

The radio coupler for the Autocontrol III/IIIB and the Altimatic III/IIIB/IIIC is a 1C388, and the procedure is the same for all.

First, a brief discription of each switch position. Full CCW is NAV. It has a very large dampening capacitor across the L-R needle input the filter the wondering needle when used on cross country with distant VOR's. The next position CW is OMNI. It has a smaller dampening capacitor across the L-R needle and was originally for use in making omni approaches to an airport. The reason for the smaller capacitor was, you were closer to the VOR and therefore had a cleaner/stronger signal that resulted in a more stable needle. Less filtering was needed for smooth tracking by the autopilot.

Straight up is HDG. This position is for flying the HDG bug only. The HDG signal merely passes throught the rotory switch and directly to the autopilot. No circuitry involved.

The next position CW is LOC NORM. This position has no dampening capacitor across the L-R needle and is used for LOC front course approaches.

Full CW is the LOC REV. This is for backcourse approaches.

When using any of the "Radio" modes,i.e., NAV,OMNI,& LOC, you must remember to set the HDG bug to agree with the Radial or Course selected on the VOR Indicator. If you are flying a LOC approach, set the HDG bug to the Inbound Heading of the runway. This must be done in order for the autopilot to be able to set up a 45deg. intercept. It is also critical for the autopilot to do crosswind compensation correctly.

There are centering adjustments which can be done by a qualified autopilot/avionics technician to get the autopilot to nail that needle.

Crosswind compensation is possible for a maximum of +/- 15deg. If you find the autopilot unable to hold within this limit, it is OK to move the HDG bug in a little to help it.

As far as Glideslope coupling is concerned, there are three things to remember. First, you must be in LOC NORM. This switches a ground to the G/S coupler, in effect telling it you are going to do an ILS approach, so watch for the GS needle. Second, you mst have Altitude Hold on. This is supplying 14 volts to the GS coupler to ARM the capture circuit. And lastly, you must have AT LEAST a 60% up GS needle for 20sec. to charge the arming capacitor enough to trip the capture circuit at zero crossing. That's when the green light comes on. There is also a centering adjustment on the GS coupler to track the needle on center.

Hope this answers your questions. If I can be of any further help, holler!

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