

B300 Audio variometer

57mm or 80mm
Metric or Knots

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The **B300** was designed to be a simple, uncomplicated, low cost variometer with audio for club two seat and early solo single seat gliders as well as a high quality rate of climb instrument for powered aircraft and ultralight aircraft which may soar occasionally or use the energy in the atmosphere to enhance powered performance.

It retains the outstanding zero stability and smooth but fast response of the other instruments in the Borgelt Instruments range and the audio is the “UP” side of the B400/B700 audio in “Classic B40” mode and optionally the B400 sink audio with silent zone between 1 and 4 knots down. The B400 push button averager is available but there is NO provision for a standby power supply.

Installation

General installation guidelines are available from our website or request a copy - please read prior to installation.

REMOVE BATTERIES FROM GLIDER until installation is complete.

Mount B300 in standard 57mm or 80mm panel hole. The lower left hole and top right mounting holes will need enlargement to 6.35mm(1/4 inch) to allow free movement of the spring loaded center off toggle switch (Volume control) and clearance for the switch. 2 x M4 bolts are provided.

Remove XCB (eXternal Connection Board) from rear of instrument by removing 2 x M3 screws from top corners. Tilt back to disengage DB15 connector then lift to remove from fixed screw at bottom (bottom fixture has a slot to allow this)

Connect Total energy line to pressure barb marked TE (see label on top of instrument). Use green rubber doughnut over TE line to provide a seal. Slide this close to instrument.

Connect 12 volt power and GROUND to XCB.

Note there is no power switch on the B300 and that this 12 volt circuit must be externally switched. (Master switch is OK)

Replace XCB. Plug repeater line, if used, into socket on XCB. See label on top of instrument.

Plug in speaker (Optional). Any 8 ohm speaker may be used. If using a standard aircraft headset in a powered aircraft an impedance matching transformer is required. Contact Borgelt Instruments.

Ensure installation is secure and does not interfere with aircraft controls.

Operation

On power up pointer goes full down for a few seconds, then back to zero, green light near zero point flashes on momentarily then vario is ready to use a few seconds later.

Audio volume is set to a reasonable level and is adjusted by the toggle switch in the upper right (upper left in later 80mm instruments) mounting hole position. Moving the toggle left and up increases volume, right and down decreases volume.

Holding the push button down causes the pointer indicate the 20 second average rate of climb, momentary presses cause the audio mode to cycle between “up only” and full range, with silent zone between 1 and 4 knots down.

Options

Also as supplied, the B300 audio is in "B40 classic" mode and is not able to be set by user to other modes.

The green light is on when the vario reads above the 20 second running average. When it goes out the thermal is weakening or you are on the wrong side of it. When the green light is on, average rate of climb is INCREASING (good).

A repeater (B400 repeater) may be used for the rear seat in two seaters.

For Connection: See label on top of instrument.

WARRANTY

If, under normal operating use, any part of the Borgelt Instruments hardware proves to be defective in material and/or workmanship within the warranty period of twenty-four months from date of purchase such defective parts and/or workmanship will be repaired by Borgelt Instruments or their approved agent. All freight charges are to be borne by the owner. This warranty is not transferrable. This warranty does not cover damage caused by misuse, neglect, accident, reversal of polarity or repair or attempts to repair by unauthorized personnel.

Any returns must be authorised by Borgelt Instruments prior to shipping.

Please see “Return of Instruments guidelines” on our website or contact Borgelt Instruments for a copy.
Date: 20June 2018