

These instructions are for the Cambridge CAV50. The later CAV II is very similar except the rear panel has been tidied up by using telephone electrical connectors



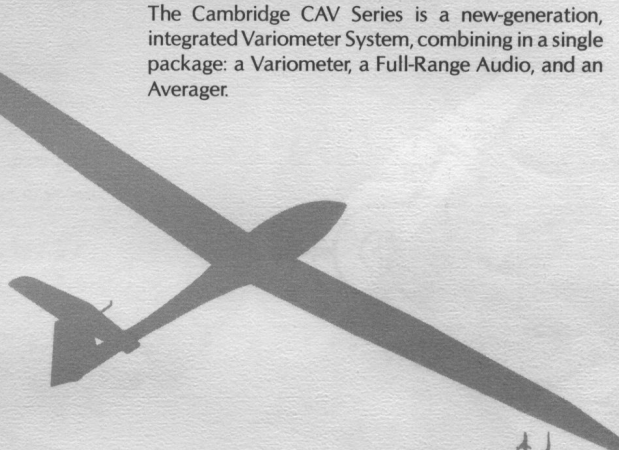
SERIES CAV **AUDIO-VARIOMETER**

After World-wide use for many years, Cambridge Variometers have been developed and refined to the point where they represent virtually a standard in the field of such equipment for performance, versatility, and reliability.

The Cambridge CAV Series is a new-generation, integrated Variometer System, combining in a single package: a Variometer, a Full-Range Audio, and an Averager.

Outstanding features of the CAV Series include the following:

- 80 mm (3") standard aircraft case with large, readable round scale.
- Dual-Range and Dual Damping.
- Full-Range Audio with adjustable quiet band.
- Principal controls on front face of instrument.
- Integral Speaker.
- Outstanding zero stability.
- Ideally suited to all Cambridge TE Probes, as well as other TE Probes.
- Economical in power and cost.



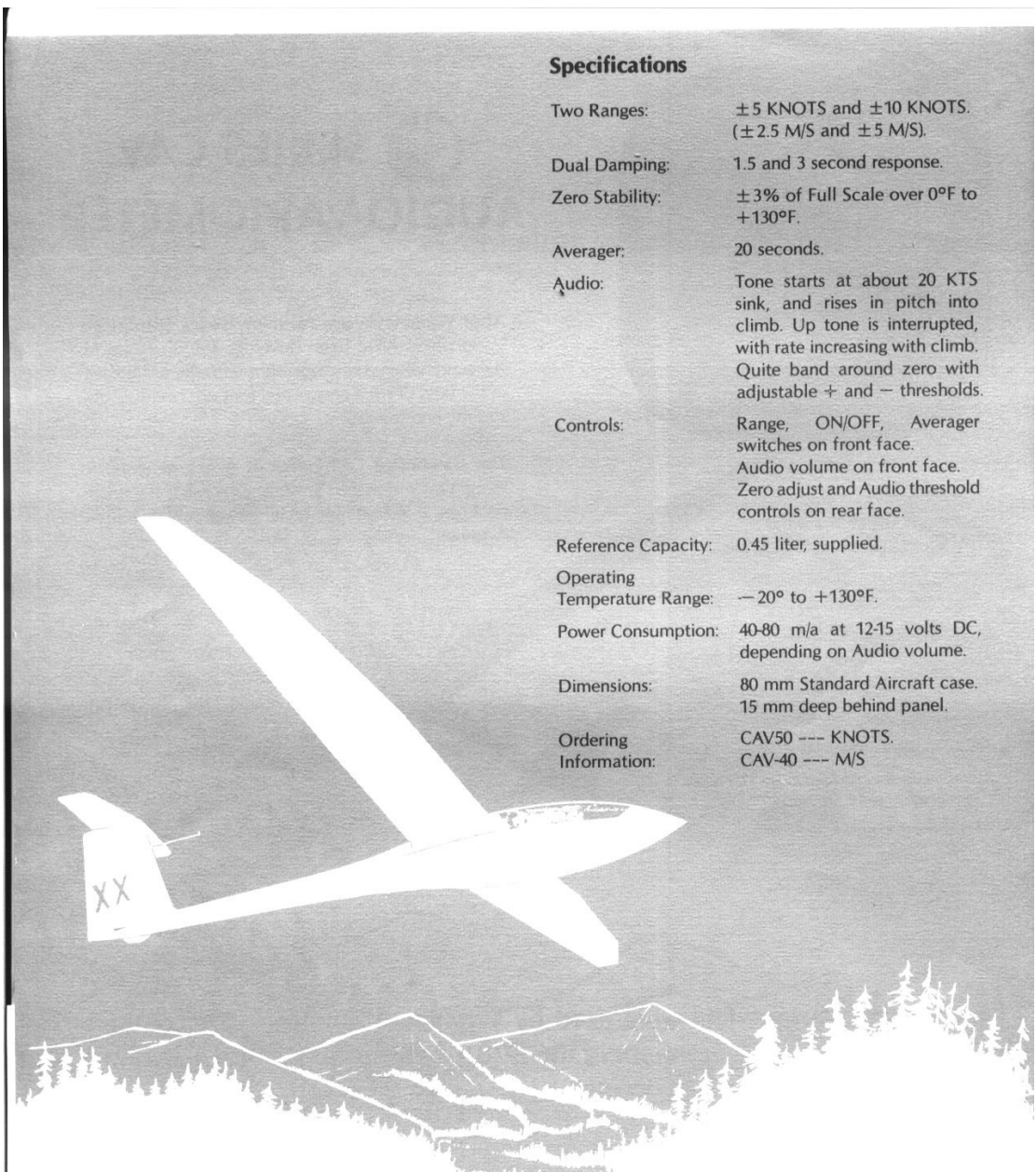
Cambridge Variometers were used by Winners of innumerable competitions, including the Champions of the 1978 (Chateauroux), 1980 (Paderborn), and 1983 (Hobbs) World Contests.

The Record speaks for itself.



BUSINESS MEMBER

Cambridge Aero Instruments, Inc.
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Specifications

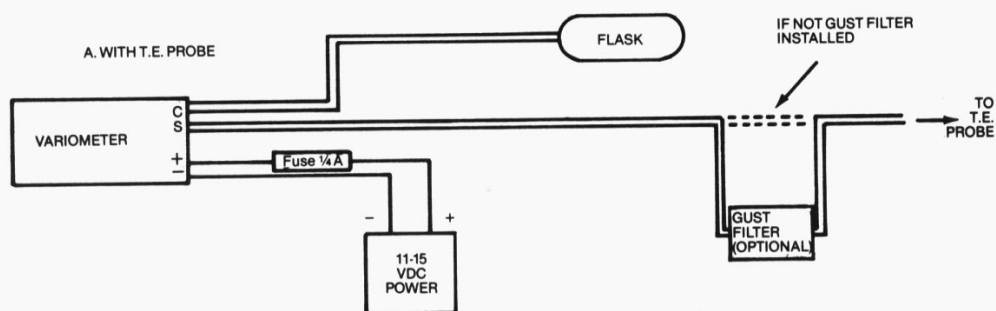
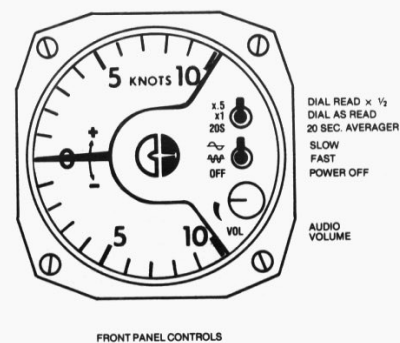
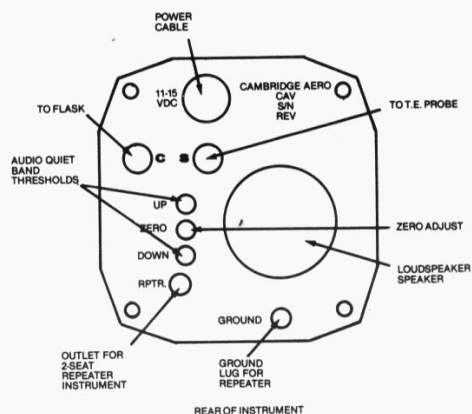
Two Ranges:	± 5 KNOTS and ± 10 KNOTS. (± 2.5 M/S and ± 5 M/S).
Dual Damping:	1.5 and 3 second response.
Zero Stability:	$\pm 3\%$ of Full Scale over 0°F to $+130^{\circ}\text{F}$.
Averager:	20 seconds.
Audio:	Tone starts at about 20 KTS sink, and rises in pitch into climb. Up tone is interrupted, with rate increasing with climb. Quite band around zero with adjustable $+$ and $-$ thresholds.
Controls:	Range, ON/OFF, Averager switches on front face. Audio volume on front face. Zero adjust and Audio threshold controls on rear face.
Reference Capacity:	0.45 liter, supplied.
Operating Temperature Range:	-20° to $+130^{\circ}\text{F}$.
Power Consumption:	40-80 m/a at 12-15 volts DC, depending on Audio volume.
Dimensions:	80 mm Standard Aircraft case. 15 mm deep behind panel.
Ordering Information:	CAV50 --- KNOTS. CAV40 --- M/S

WARRANTY

All Cambridge Variometers Systems are guaranteed for use in sailplanes and motor-gliders only, for a period of TWO years from date of purchase. This warranty includes all parts and labor costs only, and is valid only if returned to CAI Inc. The Warranty is void if the instrument has been misused outside its limitations.

INSTALLATION & OPERATING INSTRUCTIONS

- The variometer installs with 4 screws (size 6-32) and nuts into all standard aircraft 3-1/8" panel openings.
- Power connections are made via the power cable as follows:
 CLEAR WIRE ---- BATTERY +
 BLACK WIRE ---- BATTERY -
 SHIELD WIRE --- BATTERY -- and to instrument panel, if it is made of metal.
- The instrument is not internally fused. A fuse in the + line of 1/4 amp near the instrument is *strongly* advised. This is important.
- It is essential that the variometer be effectively compensated for total energy. Compensation with the Cambridge TE Probe, Althaus Venturi, or equivalent device is most effective.
- For hooking up the tubing, refer to the relevant system installation drawing at end. It is essential to make all tubing connections leak-proof.
- Use of Cambridge Gust Filter improves smoothness of response with little loss of speed.
- The Audio "quiet band" is adjusted from the rear of the instrument. Set up as follows:
 - Select a positive climb, above which you want to hear the climb tone.
 - Set vario to this climb with the "ZERO" on the back.
 - Adjust the "UP" control on the back until the Audio just switches on or off.
 - Repeat for a negative sink, using the "DOWN" control on the back.



(e) Check that the vario is set back to zero using the "Zero" control