

THE *Cambridge* INTEGRATOR

The Cambridge Integrator is the latest addition to the Cambridge variometer system, providing the pilot for the first time with a true average rate-of-climb, on an easy to read integral indicator.

The Cambridge is **not** a simple averager. It is **totally different** from other averagers. Using the latest technology, it continuously stores the variometer reading and divides it by the time taken, **from a moment that the pilot determines** by pressing the SET button. What is presented on the integral readout is the **average climb from that moment on**.

As an additional feature, the average climb over the last 30 seconds is available at the flick of a switch.

The Cambridge Integrator relieves the pilot of the need to estimate his achieved climb. It accounts for the time taken to center a thermal, as well as any sink encountered on the way up. It provides the pilot with a true picture of his climb, which can otherwise only be laboriously obtained with a stopwatch, altimeter and calculator. If used with a Speed Director, it completes the circle of soaring instrumentation.

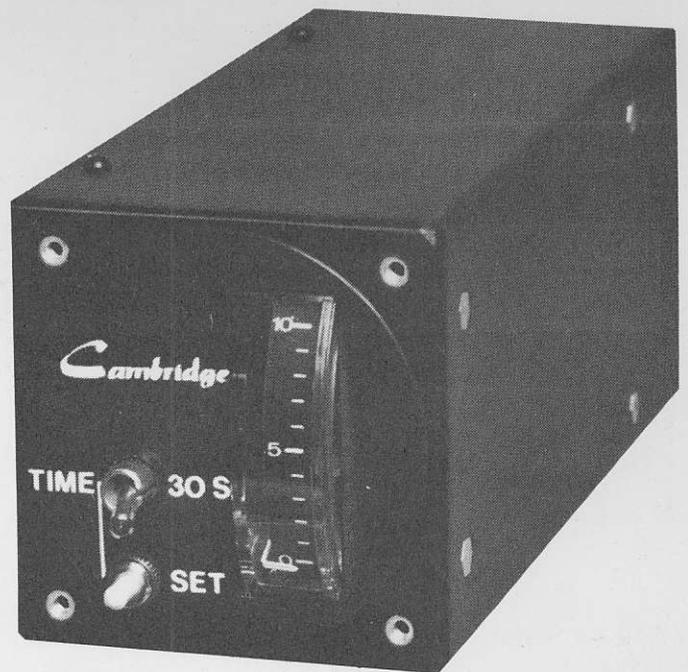
The Integrator is compatible with most Cambridge variometers, all Speed Directors and Audios, and is suitable for all sailplanes.

INSTALLATION

The Integrator fits into a standard 2.25" opening in the panel, using the 4 screws supplied with the instrument.

Installation is completed using the Cambridge expandable building block approach. If no Speed Director is used, refer to figure 1. If a Speed Director is used, refer to figure 2. These installations do not interfere with the power and tubing connections to the variometer in any way.

In either case, plug the Integrator into the 7-pin outlet at the back of the variometer. If a Speed Director is installed, it should be plugged into the 7-pin outlet at the back of the Integrator, and the Audio plugged into the Speed Director. If no Speed Director is installed, simply plug the Audio (if one is used) into the outlet at the back of the Integrator.



WARRANTY

All Cambridge variometer products are guaranteed against defects for TWO YEARS from date of original purchase, when used in sailplanes only. The warranty is limited to parts and labor, and the unit must be returned to the factory. The warranty is void if the equipment is misused, or if repairs are performed by unauthorized persons.

FIG. 1

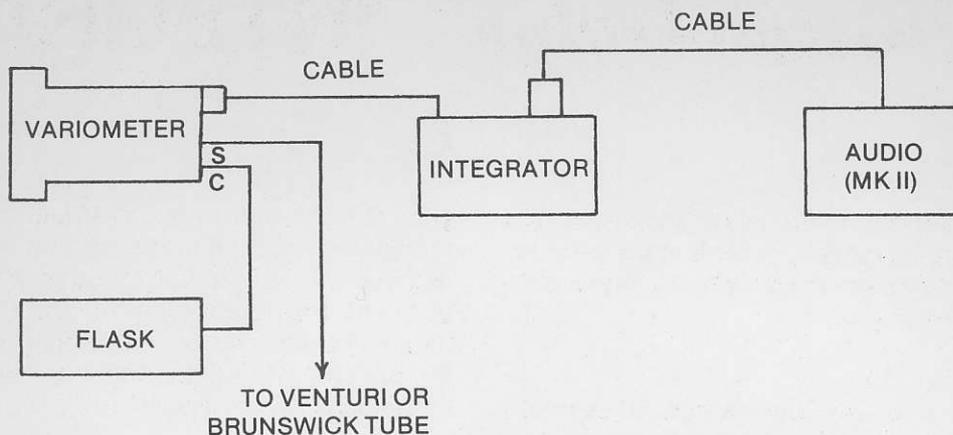
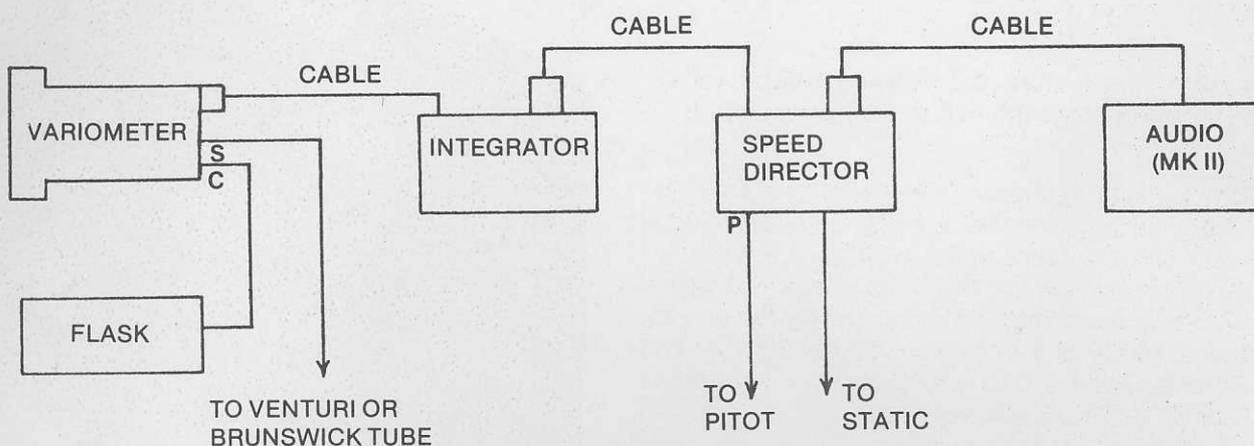


FIG. 2



OPERATION

When the Switch is in the 30S position, the Integrator will display the average over the last 30 seconds, at all times.

When the Switch is in the TIME position, the Integrator will display the average climb since the SET button was last pressed (up to 25 minutes ago.) To restart the averaging process in this mode, simply press the SET Switch. The average from that instant on will be displayed.

Switching from 30S to TIME and back will not lose the indications in those modes. It is not necessary for the Switch to be at TIME when the SET button is pressed. The Variometer can also be at any switch setting.

The achieved average can be used as a guide to the

pilot when setting the knob on the Speed Director, in addition to other information about conditions ahead that he may use.

The 30 second average, on the other hand can provide a good indication of the weakening of a thermal, (amongst other things) thereby facilitating the decision to leave.

SPECIFICATION

Input: Power and Variometer signals via 7-pin plug and cable.

Output: 0-10 linear readout, represent-

Output signal to Speed Director or Audio, via 7-pin outlet. approx. 10 m/a at 11-18 VDC.

Power Consumption: Dimensions: 2 3/8" x 2 3/8" x 6"