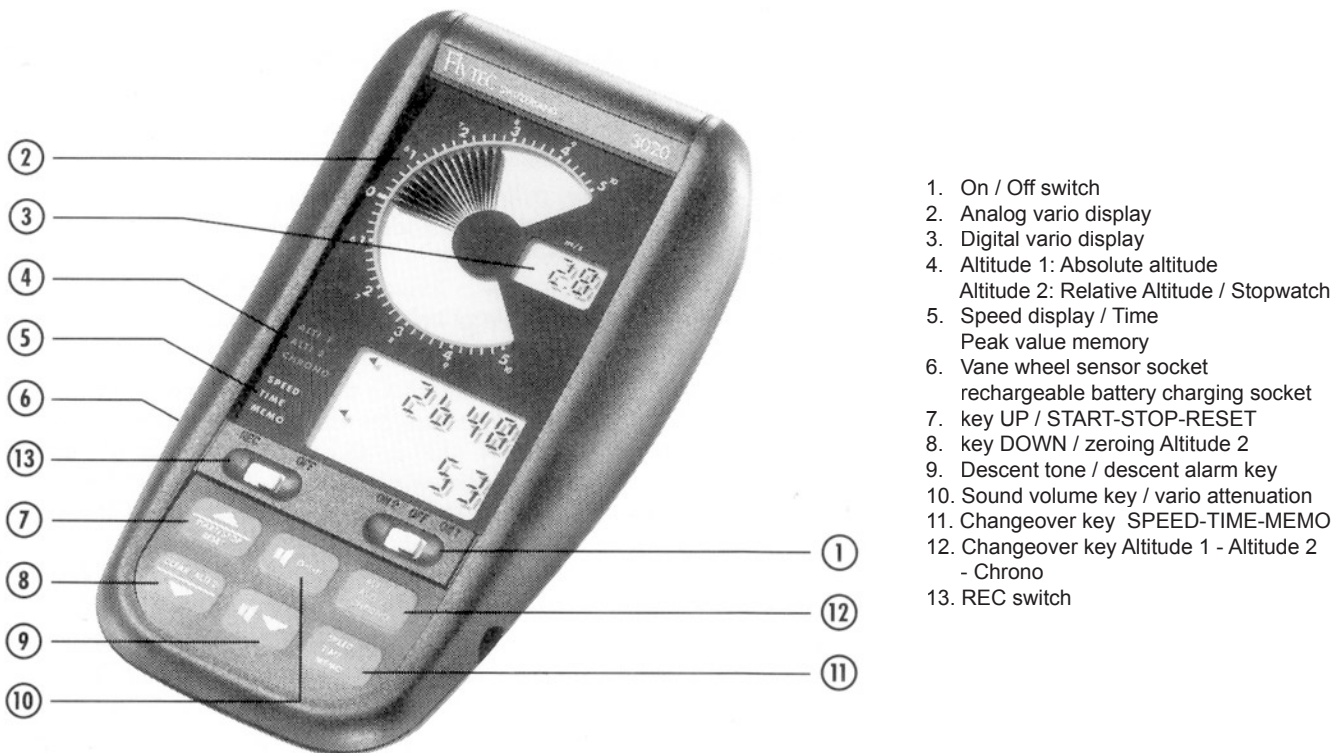


# Operating instructions FLYTEC 3020



1. On / Off switch
2. Analog vario display
3. Digital vario display
4. Altitude 1: Absolute altitude  
Altitude 2: Relative Altitude / Stopwatch
5. Speed display / Time  
Peak value memory
6. Vane wheel sensor socket  
rechargeable battery charging socket
7. key UP / START-STOP-RESET
8. key DOWN / zeroing Altitude 2
9. Descent tone / descent alarm key
10. Sound volume key / vario attenuation
11. Changeover key SPEED-TIME-MEMO
12. Changeover key Altitude 1 - Altitude 2  
- Chrono
13. REC switch

**Starting:** On1 or On2 (1). Two independent batteries (rechargeable). The switch should be set to OFF when the unit has switched off automatically.

**Battery control:** Power voltage is indicated on the analog vario display (2) for approximately 10 seconds and «Po» for power on the digital vario display. When all the segments in the ascent sector (green) light up, this indicates that the battery which has been switched on has an energy reserve of 100%.

Inadequate power reserve is indicated continuously when switched on and during operation by the lighting up of one or several segments in the descent sector (red) and «Po». Please refer to «CHANGEOVER TO RECHARGEABLE BATTERY OPERATION» for BATTERY charging information.

**Automatic power down:** Power is automatically cut off approx. 30mins. after the unit is last used. The on/off switch must first be set at OFF before the unit can be used again.

**Setting mode:** 1. Changeover into adjustment mode is effected by pressing a key (9, 10, 11 or 12) for several (approx. 4) seconds. The corresponding display will then flash intermittently and can be reset.

2. Use the reset key «Up» (7) or «Down» (8) to set the required value. When entering altitude figures, the number display can be speeded up by continuous pressing.

3. Finish by pressing the corresponding original key.

**Altimeter:** Altitude 1: Absolute altitude. Can be set within weather-dependent tolerances.

Altitude 2: Relative altitude. Can be set whenever required over the whole measurement range and zeroed at any time by pressing the key «CLEAR ALTI 2» (8). It can also be cleared while ALTI 1 is shown on the display.

Pressing the changeover key ALTI 1-ALTI 2 (12) indicates the desired altitude and marks it with an arrow. Pressing the changeover key (12) for several (approx. 4) seconds will cause the unit to change to the adjustment mode of the altitude currently displayed (see Setting mode).

**Altitude gain / loss:** Altimeter 2 (ALTI 2) can be used to indicate a gain or loss in altitude, as it can be zeroed at any time using the key «CLEAR ALTI 2 » (8), even while ALTI 1 is displayed.

**Analog vario:** Fully automatic segment display over the entire range. Individual segments remain displayed until the end of the first scale sector is reached. They are then deleted from zero in the second scale sector pass again until the end of the second scale sector is reached.

**Digital vario:** Display over the entire range.

**Digital vario attenuation:** Changeover into the vario attenuation setting mode is effected by pressing the volume key (10) for several (approx. 4) seconds (c.f. Setting mode). The following average value computations are possible for the digital vario display:

0 = average value for the last second (4 measurements per second)

5 = average value for the last 5 seconds

10 = average value for the last 10 seconds

15 = average value for the last 15 seconds

20 = average value for the last 20 seconds

25 = average value for the last 25 seconds

30 = average value for the last 30 seconds

The analog vario display is not attenuated.

**Vario sound:** Sound can either be switched off entirely or 2 volume levels can be set by repeatedly pressing the volume key (10). The volume level currently set will sound when the key is pressed.

When the unit is switched on, the volume is automatically set at level 1.

**Ascent tone:** A sound interval with a rising tone frequency dependent on ascent frequency and a timbre dependent on scale (ASI: Acoustic Scale Indication). The response point is set to optimum response time (factory setting) and can be altered by means of a regulator inside the unit (please consult a specialist).

**Descent tone / descent alarm:** A continuous falling tone frequency dependent on descent with a timbre dependent on scale (ASI: Acoustic Scale Indication). Can be switched on or off by pressing the descent tone key (9). On switching on the descent tone/alarm and pressing the key, a segment will appear in the descent sector of the vario display to indicate the current response point. When the descent tone/alarm is switched off, pressing the key will not produce a display. The descent tone/alarm will only sound when the vario acoustic facility is switched on.

When the descent tone key (9) is pressed (for approx. 4 seconds), the unit moves into the adjustment mode for descent tone/alarm (see Setting mode). The response point can be set anywhere within the full range of the scale.

**Wind speed display:** The vane wheel sensor is connected to the socket (6) on the lefthand side of the unit. The readout appears in the lower display sector SPEED.

**Stall alarm:** Pressing the SPEED key (11) continuously (for approx. 4 seconds) will cause the instrument to change into stall alarm adjustment mode (see Setting mode). Finish by pressing the SPEED key.

**Stopwatch:** The stopwatch can be activated by pressing the START/STOP/RESET key. Intermediate values can be timed by pressing this key briefly. They will be displayed in the upper display sector CHRONO. Further intermediate values can be measured by repeatedly pressing the START/STOP/RESET key. A flashing or immobile arrow in the CHRONO display sector indicates that the stopwatch has been activated. The stopwatch is deactivated by pressing the START/STOP/RESET key continuously (approx. 4 seconds). The intermediate value must be timed before doing this.

**Real time, clock, date:** Real time is shown in the lower display sector TIME. Changeover into TIME setting mode is done by continuously pressing the TIME key (11). Enter the hour(s) and minute(s), finish by pressing the TIME key. Enter the day and the month and press the TIME key. Enter the year and press the TIME key.

**Peak value memory:** Pressing the MEMO key (11) will display the flight data and peak values of the current flight (0) which are continuously updated during the flight.

Maximum absolute altitude (ALTI 1)

Maximum relative altitude (ALTI 2)

Maximum ascent

Flight time

Date

Pressing the reset key DOWN (8) or UP (7) will invoke the peak values of the last 20 flights (1, 2, 3, etc.), with flight 20 being the least recent flight. Flight data is saved automatically when the unit is switched off (condition: the unit must have been switched on for 3 minutes and there must have been a clear difference in altitude). Memories 0 to 20 are updated and the data of the least recent flight is deleted.

**Flight time:** Time is measured from the moment the unit is switched on until it is switched off. Precise flight time measurement is done by switching on the REC switch (13) at take-off and switching it off on landing. This function is only available if the REC switch is at OFF prior to switching the unit on. If the REC switch is not switched off manually, the flight time will be measured until the unit is switched off.

The stopwatch can also be used for flight time measurement. However, these times are not saved when the unit is switched off.

**Battery change:** Unscrew the unit and open up the back. Use a 9 V battery.

**Changeover to rechargeable battery operation:** Order the FLYTEC AKKU SET from your local dealer (2 rechargeable batteries and 1 charging unit).

*N.B. Only use rechargeable batteries! The charging unit must never be connected when non rechargeable batteries are being used.*

**Water damage:** Open the unit immediately. If salt water has entered the unit, rinse it thoroughly (the printed circuit board, in particular) with hand-hot fresh water. Allow the unit to dry as well as possible, preferably in the sun. If this is not possible, the unit must be placed on a piece of wood in an oven. Allow the unit to dry off for one or two hours as required, at a temperature of approx. 50°C. Leave the oven door open slightly to allow any moisture to escape!

*N.B. Never put the unit in a microwave oven !*

**Attachment:** Clip or special attachment for hang-glider (fit to the rear of the unit). The clip can be unscrewed, rotated 90° and refitted.

**Adjusting the security cord:** Open the unit, cut the cord to the required length and knot it well. Tighten the cord from the outside and screw the unit together again.

**Servicing, repairs:** Return the unit to your nearest FLYTEC service agent.

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