



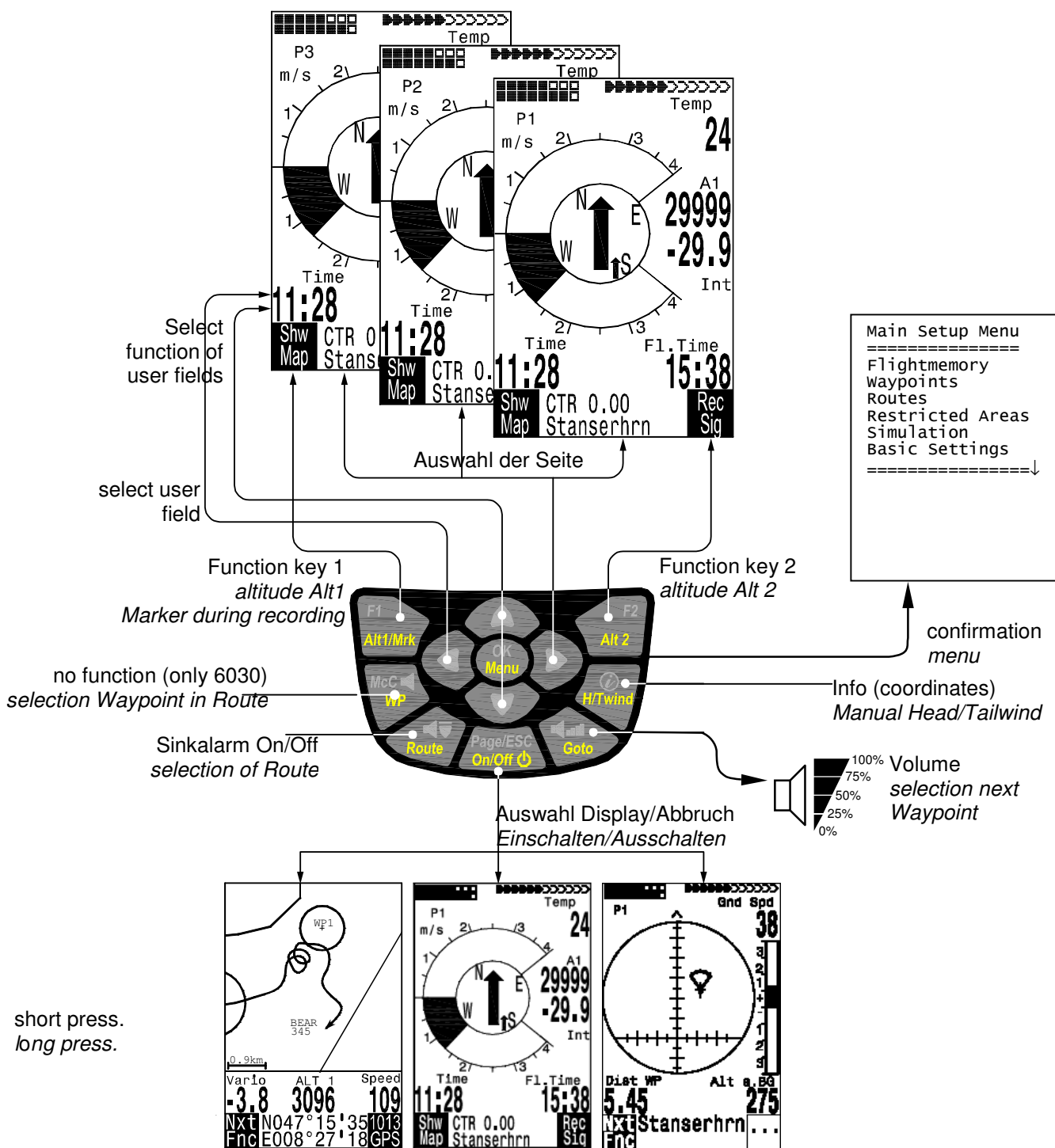
IQ-Competino+ Version 1.0

BRAUNIGER Flugelectronic GmbH
Dr.-Karl-Slevogt-Str.5 D-82362 Weilheim, Tel. +49 881 64750
info@brauniger.com www.brauniger.com

Switching ON and OFF the Competino+

The instrument is switched-on by pressing the **ON/OFF** key. In order to avoid unintentional switching-on, it is necessary upon display prompt „switch on ?? Press Ok“ to confirm by pressing the **OK** key. For switch-off the same key needs to be pressed for about 3 seconds and the display prompt "switch off?? Press OK " is to be confirmed by pressing the **OK** key.

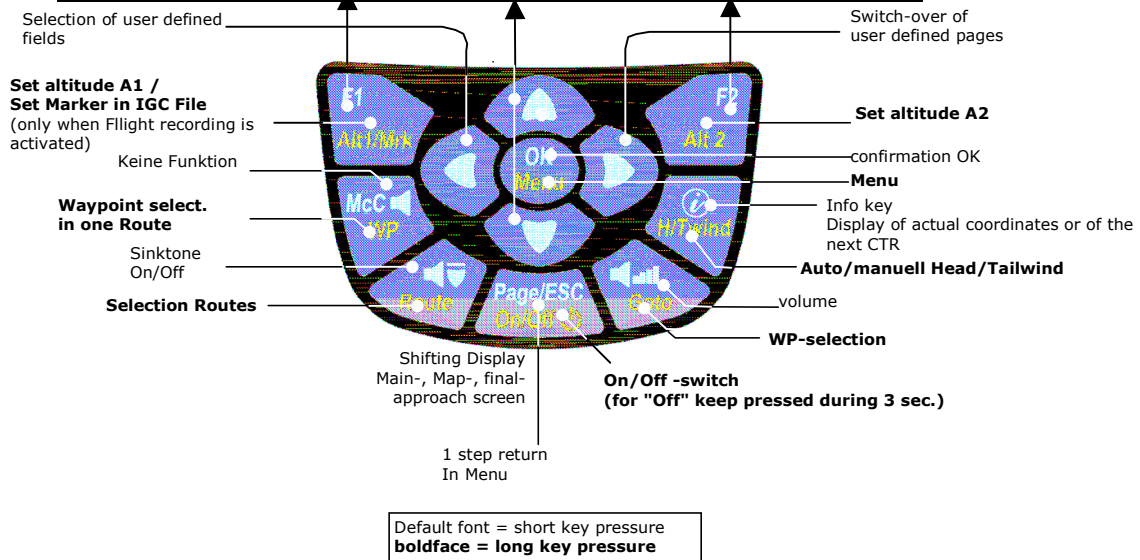
Keyboard and summary of display screen.



Operating Manual COMPETINO-plus

Arrow key functions in normal mode

Long press.on	F1 key	Arrow keys	F2 key
Alt1/Mrk	Alti 1013	Alti 1 ↑↓	Alti GPS
Alt 2	---	Alti 2 ↑↓	Set 0
WP	Add Wayp.	next↑pr↓ wp	---
H/Twind	---	HT wind Auto HT man. ↑↓	HT Man (Wind) HT Auto (Wind)



Note for switch-off: after completion of a flight the calculation of the digital signature can take up to 2 min. Please wait until the display prompt „Generating Digital Signature“ disappears and then press again the **ESC** key.

User defined fields

The main screen as well as the final approach screen each show up to 3 pages which are shifted by use of the **▶** key. Due to this feature it is possible to display nearly all the following measuring data in their correct context. The page number is displayed below the battery charge state as P1...P3.

Time of day	Display remains empty
Flight time	Time of day
Vario	Flight time since take-off
Altitude 1 m	Digital Vario
Altitude 1 ft	Absolute altitude in m
Altitude 2	Absolute altitude in ft
Altitude Sum	Reference altitude, can be set to 0 user-defined
FL (ft)	Cumulated gained height of the flight
QNH hPa	Flight level in feet. Not alterable.
Gnd Speed	Air pressure in Hektopascal
Air Speed	Speed over ground * (= GS)
Wind Speed	Flying speed through the air
Spd-Diff	Wind strength *
Track	Wind component (Groundspeed – True Airspeed)*
Bearing WP	Flight direction (course)*
Dist WP	Direction to selected waypoint *
Dist Goal	Distance to selected waypoint *
	Counted up sectors in front of the pilot up to the last WP of a Route *

Dist Start	Distance from starting point
Dist Cylin	Distance to the radius of a Waypoint cylinder in a Competition-Route
Dist Therm	Distance to last thermal *
L/D Gnd	actual Glide Ratio over ground (= Groundspeed/Sink)*
L/D Air	actual Glide Ratio through the air (= TAS/Sink)
L/D Req	required Glide Ratio over ground to reach the WP*
Diff. BGWayp	Safety height above the path for best Glide *
Diff. BGGoal	Pre-calculated height at arrival above the last waypoint of a Route *
Temperature	Temperature of circuit board

* Display only active when GPS receiver is energised.

If no data are changed after selection of a field, the instrument returns to normal mode after 10 seconds and the previous display is maintained.

Menu Sequence

- Flight memory
- Waypoints
- Routes
- Air Space
- >User Settings
 - >Variometer
 - Basic filter
 - Digital Vario Integrator
 - Threshold last Climb
 - >Variometer Acoustics
 - Acoustics Settings
 - Threshold Sink tone
 - >Speed
 - Settings Wind vane
 - Stall Speed
 - >Flight Memory
 - Recording Auto/Man
 - Recording interval
 - Polar Curves
 - Pilot's name
 - Type of aircraft
 - Aircraft ID
- >Memory
 - Delete flights
 - Delete WP and Routes
 - Formatting the memory
 - Delete Air Space data
- Simulation
- >Instrument Settings
 - Display contrast
 - Language
 - Battery type
 - Time zone
 - Units
 - Coordinate format
 - Pressure sensor correction
 - Bluetooth
 - SMS
 - >Optional Software
 - >Factory settings

Data exchange via PC

The basic equipment of the Competino+ includes a data cable for a USB PC interface USB Mini B. Due to this feature data transfer can be carried out in both directions. The data transmission is effected via serial interface COMX with: 57.600 baud; 8 databit; 1 stopbit; no parity, Xon/Xoff.

Using the USB interface the Competino+ can also be operated for **data readout and entry**:

- entire instrument configuration (Basic Settings, User def. fields)
- list of waypoints
- list of Routes

Only readout of flights saved in the flight memory is possible.

Important: for transfer of a.m. data the Competino+ must first be switched-on and the relevant program for data transfer has been called-up, before the connection cable to the PC is plugged to the Competino+.

Important: at first the USB driver as provided from Prolific has to be CD installed. Upon installation of Flychart the USB driver installation is effected automatically.

To perform data transfer the instrument needs to be switched to the *Main Setup Menu* by prolonged pressing on the **OK** key.

Please observe the instructions of the software being used for transfer of stored flight data. (For most software programs it is required to shift to the Flightmemory resp. to the Flight-Analysis mode).

There are various software programs available for creation of IGC-files, partly even for OLC-files. For more detailed information please check homepage <http://www.onlinecontest.de/holc/>

We recommend the use of Flychart which can be downloaded from the www.Brauniger.ch website.

With Flychart all instrument settings can be effected comfortably on the PC.

Trackview (Freeware) Daniel Zuppinger (for OLC and CCC) www.softtoys.com/

Maxpunkte (Freeware) Program by D.Münchmeyer for Online-Contest of DHV www.dm-sh.de

Compe-GPS For competition and private pilots, 3-D presentation www.compegps.com

Seeyou Flight planning- and Analysis software, www.seeyou.ws/

GPSDump Stein Sorensen . A simple program to receive IGC Files <http://www.multinett.no/~stein.sorensen/>

Landing in Water

In case you are forced to land in water with your Competino+ and it may have penetrated the instrument, there is still a chance to save the instrument or at least some of its parts.

Once water has intruded the GPS module it is then irrevocably lost. Take out all batteries as fast as possible, thereby the circuit is disconnected from power supply. Then afterwards the casing can be opened.

In presence of aggressive liquids, such as salt water, place the circuit board and all parts affected by the salt water into warmed freshwater for a minimum of about ½ hour. Thereafter dry the instrument carefully with warm air (hair dryer). It is also recommended to remove the flat cable of the keypad.

Please return imperatively the dried instrument to Brauniger Company for final check over.

Any claim under Warranty is void after a Water landing.

Technical Data

Dimensions:	178 x 95 x 40 mm	
Weight:	425 Gram (without harness)	
Power supply:	2 or 4 pieces Alkaline batteries AA, 1.5V	
Battery operation time:	> 20 hrs. per Bank, i.e >40h	
Altimeter:	max. 8000 m	Scale 1m
Variometer:	analogue ± 8 m/s	Scale 0,2 m/s
digital	± 100 m/s	resolution 0,1 m/s
Speed wind vane	digital 0 up to 120 km/h	
Waypoints:	200 WP	
Routes:	20 Routes with max. 30 WP each	
Max. storage time:	48 hrs. Flight time at 10 s recording interval max. 291 hrs. at 60 s recording interval	
Restricted Areas	20 CTR's free of charge, 150 CTR's as charged service	
Number of Tracklog points:	21 000	
Number of recorded flights:	100	

Data memory and transfer according to the IGC format

Screen Resolution	38'400 Pixel / 240 x 160 Pixel (= 1/8 VGA)
Operating temperature	-15 C° ... 45 °C

Harness items for hang gliders and para gliders are available.

The Technical data may be altered without prior notification at anytime. Software upgrades can be made via Internet by downloading the latest firmware version from our homepage onto the user PC.