



BRAÜNIGER FLUGELECTRONIC



COMPETINO Quick Start Guide Vers.1.0


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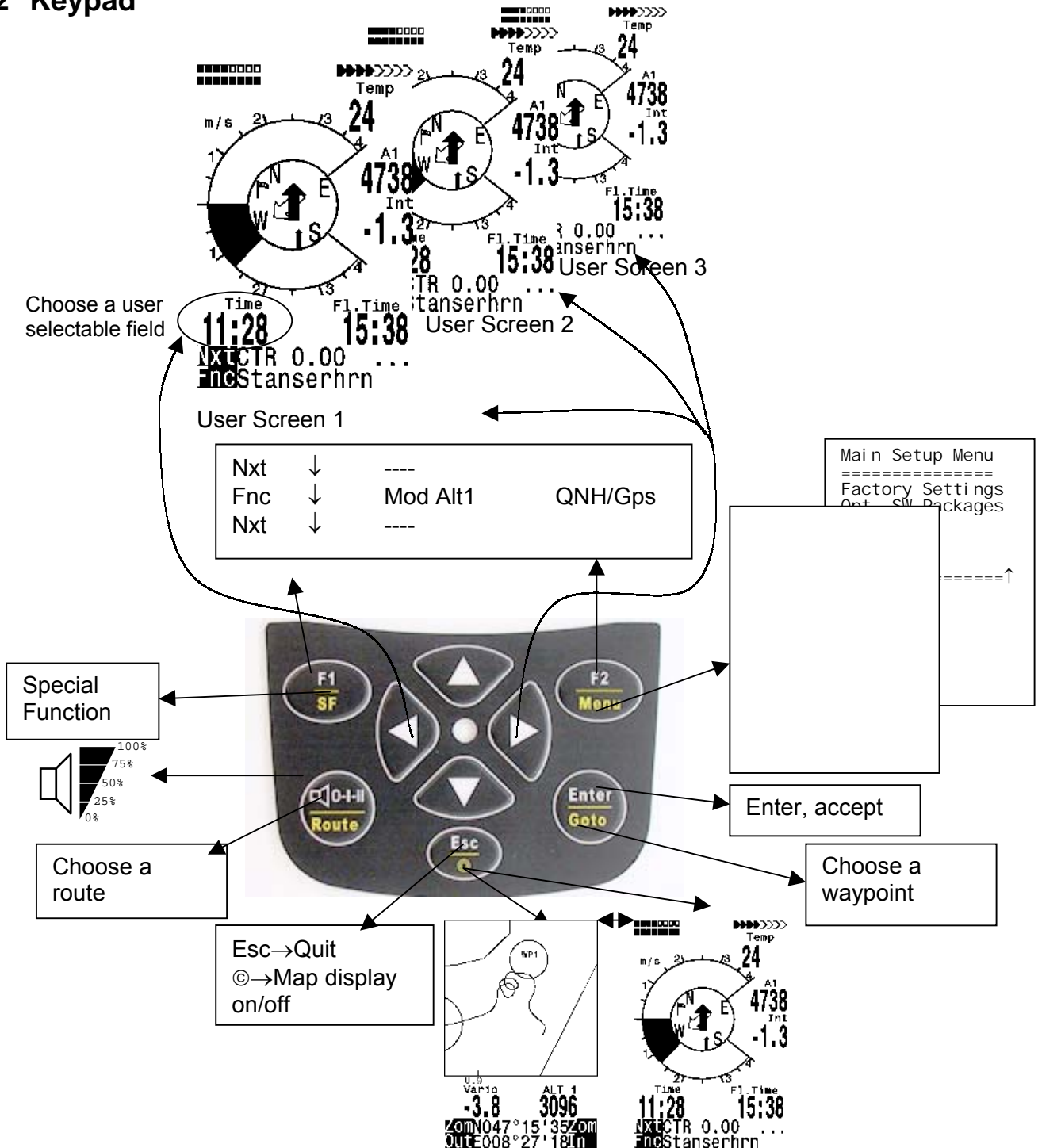
1 Operation

1.1 Turning the Unit On and Off

The unit is switched on by pressing the  key. You must confirm the switch on by pressing the “Enter” key.

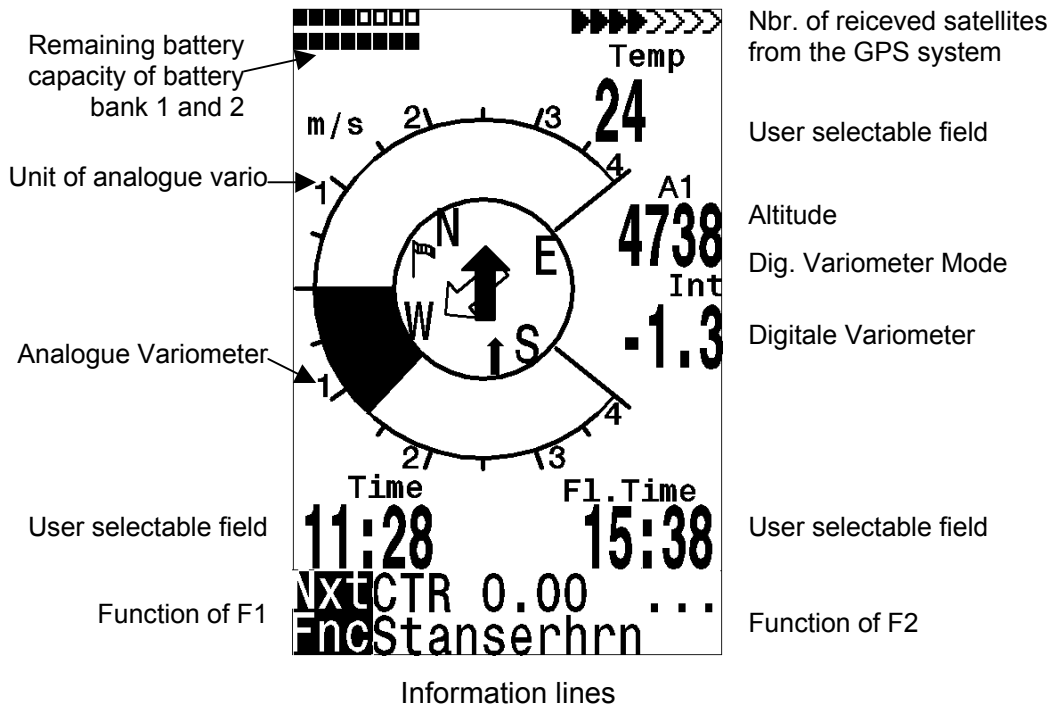
To switch it off you need to press the same key for three seconds. The unit will then display the question ‘Really switch off?’ Confirm by pressing “Enter”. After a long flight with short record intervals the calculation of the digital signature can take up to one or two minutes. Please wait until this process is finished. Press **O/ESC** key again to turn off the unit.

1.2 Keypad



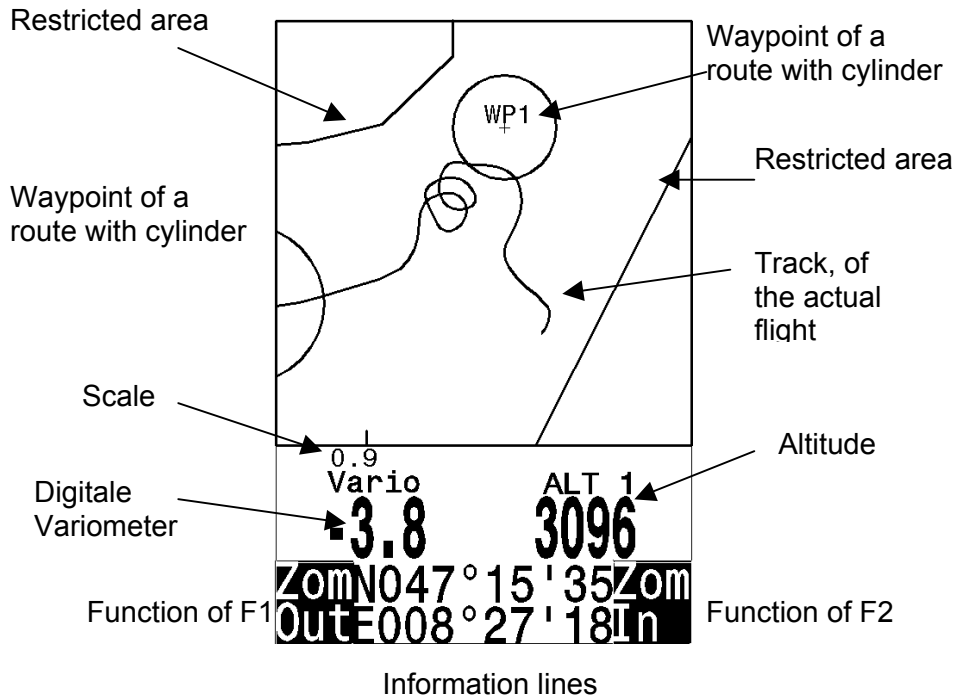
Keyboard functions above the line: Press briefly functions below line: Press for 2 sec

1.3 Main Screen



To toggle between the screens: Press briefly the **Esc**-button

1.4 Map Screen



The flight route of saved flights also can be shown on the display and viewed. Once in the Flight Analysis the **Show Map** function is reached by pressing **F1**. The screen-optimized flight route is shown on the display. (North is located at the top) Additionally, stored waypoints are plotted with a cross and name. The map scale is displayed too.

The graph can now be changed as follows:

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F2: Zoom in: The map scale is gradually increased to approx. 0.5-1.0km. Thus, individual circles during a climbing period are clearly recognizable (This is dependent on the set recording interval).

FI: Zoom out: The map scale is gradually decreased until the screen display is optimized.

Enter: From each graph back again to the screen optimized graph.

ESC: Back to the main setup menu. All other keys cause the track in the current selection to be redrawn.

Arrow keys: Pan: With these the plotted area can be shifted up, down, left and right. This function is enabled in flight memory mode only. During flight, the actual position is in the center of the map. If the position reaches a border, the map pans automatically.

Note: As the picture takes a few seconds to build up, depending on the amount of data, Wait and Ready appear on the status line as user information; if a zoom or pan key is touched during the process then it will be broken off and will start over again with new values. You can thus obtain the desired graph quickly. Even past flights can be graphed as long as they are still in the memory.

During flight, touching the **ESC** key briefly will toggle between the different screens. Vario and height appear digitally under the map. For Competition routes, the cylinder of the active waypoint, WP names, and a thin dotted line to the next WP are also displayed. During the flight the Zoom In/Out functions are accessible.

1.5 Main Setup Menu

| | |
|------------------|--|
| Flightmemory | List of the flights in memory. |
| Waypoints | List of the waypoints with the possibility to edit Waypoints and coordinates |
| Routes | List of the routes with the possibility to edit |
| Restricted Areas | List of the restricted areas with the possibility to edit |
| Simulation | Here you can simulate most of the important flight parameters |
| Basic Settings | Here you can change the most important parameters |
| Factory Settings | Only for service |
| Opt. SW-Packages | Here you can enable SW packages you bought from Brauniger GmbH |
| | |

1.6 Basic Settings

A series of settings permit the unit to be programmed according to the user's wishes. Every pilot can realize his/her own ideas. If too much information bogs you down and causes confusion, it is always possible to reset the unit at Basic Settings/ Init EEPROM, which are the manufacturer's tested basic settings. You are basically starting again.

But please note! All WP and routes will be deleted too. As a minimum, possible settings and default values will be shown at the setting points. Should these values be changed, you move to the change mode by pressing **Enter**. The value to be changed will blink and can be modified with the help of the ▼ and ▲ keys. Pressing the **Enter** key confirms the new value. Pressing the **ESC** key recalls the previous setting.

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| Term | Meaning | Factory Setting |
|---------------------|--|--------------------------------------|
| Display contrast | Range 0 ... 100 % | 70 % |
| Record-Interval | Time interval per recorded (track log)point range: 10...30 sec | 10 Sec |
| Recording mode | Autom. or manual flight recording | Aut. |
| Digital Variomode | Averager ; Averager time delay | 1 sec 30 sec |
| Vario tone | Frequency of Climb and Sink tone, Modulation, Pitch, Acoustic Integrator | 1200 Hz ; 700 Hz Mod = 5 ;Pi=3; 8 |
| Audio threshold | Fine tuning of climbing tone max 20 cm | 2 cm/sec |
| Sink tone thres. | Activation point of sink tone | 0,8 m/s (ft/m) |
| Vario/Spd delay | Response time delay for Analogue Vario and Speed | 12 (» 1,2 sec) |
| Stallspeed | Use of stall alarm and altitude limit | 0 km/h (mph) |
| Spd corr. Vane | Windwheel 70 ... 150 % correction | 100 % |
| Units | Meter or feet; Km/h or mph or knots Temp.: Grd C or Grd F | m ; km/h ; Grd C |
| Coordinate Format * | dd°mm,mmm or dd,dddd or dd°mm'ss" UTM ; Suisse Grid # | dd°mm,mmm |
| Init GPS | Set of a geodetic map system | WGS84 |
| Time Date Year | Difference to UTC; Day, Month, Year | Present |
| Pilotname | Pilot name entry; max 25 letters | not set |
| Glider type | Name of glider for OLC | not set |
| Glider ID | Glider registration for OLC | not set |
| Del all records | Deletion of flight memory (all records) | no |
| Del all WP& Rts | Deletion of all WPs and Routes | no |
| Init EEPROM | Back to factory settings | No |
| Init CTRs | Reorganization of the memory | |
| | | |
| | | |

1.7 User selectable fields

The Main Screen consists of 3 pages which can be toggled by a brief press on ►. In each of them 3 user selectable fields can be chosen with the values hereinafter.

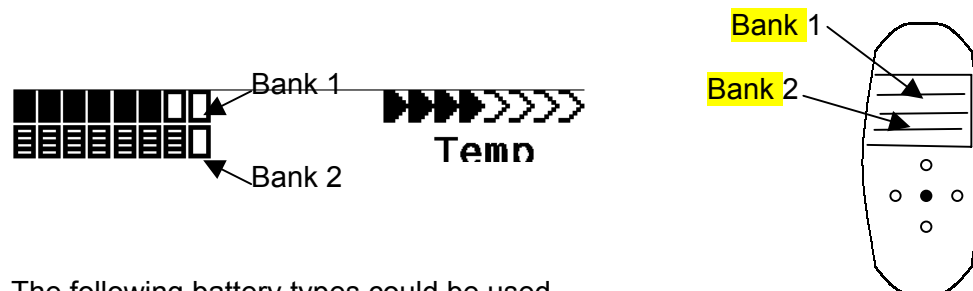
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| | |
|------------|---|
| Alt a. BG | Safety height above the best glide path* |
| FL (ft) | Flight Level not adjustable by the user |
| Dist CTR | Distance to nearest flight restricted area* |
| Airspeed | Speed measured with the vane wheel, true air speed |
| WindSpd | Wind strength* |
| Time | Time |
| Fl.Time | Flight time since take off |
| GND speed | ground speed*(=GS) |
| Spd-Diff | Wind component (ground speed minus true airspeed)* |
| Dist to WP | Distance to chosen destination (waypoint)* |
| Bearing | Direction to chosen destination* |
| Track | Flight direction (course)* |
| Temp | Internal temperature |
| Alt 2 | Reference height (if desired can be set at 0) |
| Alt 3 | Cumulated gained height |
| QNH hPa | Air pressure in hector-Pascal |
| L/D gnd | Actual L/D over ground (=Ground Speed/Sink)* |
| L/D air | Actual L/D in air, only available with vane wheel connected |
| L/D req | L/D required to reach a WP* |
| Dist to^ | Distance to last thermal |

* Only active when the GPS receiver is switched

1.8 Battery management

Two bar graph scales indicate the capacity of the batteries. The COMPETINO has 2 banks with 2 batteries each. Bank 1 must always be equipped. Bank 2 could remain free. However, we recommend to equip bank 2 also. As soon as the first bank is used up, the instrument switches automatically to the second bank. After switching ON, the unit will always start with bank1. After a long flight we recommend to insert the partly used batteries of bank 2 into bank 1 and to equip bank 2 with new batteries. Thus it is ensured that the instrument can use up the batteries always completely, without the danger of having empty batteries during a flight.



The following battery types could be used

2 pieces per bank Alkaline High Power Batteries 1.5V Size AA. Estimated life time $2 * 13h = 26 h$ together

2 pieces per bank NiMH Accu 2100mAh, 1.2V Size AA. Estimated life time $2 * 11h = 22h$ together

NiCd Accu works also, but they have clearly smaller capacities and are not pollution free.

Please dispose of the batteries properly.

The estimated life time bases on normal temperature conditions. At low temperatures the capacity of batteries decrease a lot.

1.9 Data Exchange Via PC

The COMPETINO's basic equipment includes a data cable for a serial PC interface (9 pol Sub D plug). Data transfer can occur in both directions. The connection occurs with: 57.600 baud; 1 startbit; 8 databit; 1 stopbit; no parity, Xon/Xoff

The following can be read via this RS232 interface:

Serial numbers and pilot names
Waypoint list
Route list
A selected flight (track)

The following can be uploaded to the 5020:
Waypoints and routes; (CTRs soon)

Important: the unit must first be switched on before plugging in the connection cable to the unit and the computer.

Before you transfer the waypoints and route data switch the COMPETINO to the Setup Menu. You should make sure that the waypoints show up in the unit's waypoint list before you transfer a route from your computer.

If you wish to download flight data, switch the unit to the Flight memory mode, and display the desired flight on the Flight Analysis screen before transferring it to your computer. There are a number of PC programs on the market that allow communication with the COMPETINO.

We recommend the program Flychart which you can download from the Brauniger Website www.brauniger.com

Other programs that permit data transfer with the COMPETINO:

| | |
|----------------------|--|
| Trackview (Freeware) | Daniel Zuppinger (for OLC und CCC) www.softtoys.com/ |
| Compe-GPS | www.compegps.com |
| Seeyou | Program well liked by sailplane pilots www.seeyou.ws |
| Checkin | Christian Quest (particularly for competitions) |
| Maxpunkte | Free program from DHV for reading flight data for evaluation and submission to OLC. www.dhv.de/sport |
| IQ-Online | Freeware from our homepage; easy to use; for OLC application |

1.10 Transferring New Firmware to the COMPETINO

As is the case with many other new developments, particularly during the introduction phase, improvements or feature enhancements may be expected. Periodically Brauniger will post firmware updates at www.brauniger.com, which can be downloaded by the user free of charge, and then uploaded to the COMPETINO

To be able to write to the COMPETINO's flash memory with a PC, it is necessary to use a compressed file named "Flasher.zip". In addition, the actual firmware to be uploaded must be obtained. It is called "Ctinovxxx.moc" which corresponds to the version X.XX. Both of these files are available from the download page at www.brauniger.com

We recommend that you store all the related files in a separate subdirectory. After decompressing the ZIP file a number of files are created. Double clicking on the file "flasher.exe" starts the program. Under "Setup", the serial port (COM1 or COM2) can be

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chosen. You select the file to be transferred with the extension “.moc” by pressing on the “Start” key. The data transfer starts automatically.

Sometimes the Flasher will give an error. In this case, the cable must be unplugged, and the COMPETINO turned off before making another attempt to flash the memory.

Important: Contrary to the instructions for data transfer of waypoints or routes, be sure that the COMPETINO is turned off when plugging the cable into the computer and the COMPETINO.

Important: Never leave the PC cable hooked up to the unit when it is turned off. If this is done energy is consumed, and the battery can be drained.

2 Technical Data

| | |
|--------------------|---|
| Measurements: | 165 x 73 x 38 mm |
| Weight: | 286 grams (with 4 Alkaline batteries, without harness) |
| Electrical supply: | 2 or 4 alkaline batteries AA or Nickel metal hydride accumulator 2 Ah; 1.2V |
| Battery life: | > 30 hrs with 4 alkaline batteries |
| Altimeter: | Max. 8000 m; 1 m (3 ft) steps |
| Variometer: | Analogue +/-8 m/s; (1600 ft/m); 0.2m/s (20 ft/m) steps |
| Variometer | Digital +/-70m/s; (14.000 ft/m); 0.1m/s (20 ft/m) steps |
| Speed (wind wheel) | Digital 0 - 150km/h (or mph or kts) 1 km/h steps |

| | |
|-------------------------------|---------------------------------------|
| Waypoints: | 200 WP |
| Routes: | 20 routes with max. 30 WP in each |
| Airspaces | 10 CTR's with 12 waypoints each |
| Max. memory time: | 5 hrs flying time at 10 sec intervals |
| Number of track log points: | 24 000 |
| Number of registered flights: | 100 |

Data memory and transfer according to the IGC format

| | |
|-----------------------|--|
| Screen resolution | 240 x 160 Pixel (=1/8 VGA) or 38.400 pixel |
| Operating temperature | -15...45 °C |

Brackets for hang gliders and paragliders are available.

The technical details may be altered without notification. Software upgrades can be made by downloading the latest firmware version from our homepage

3 Guarantee and liability

Our instruments carry a 24-month guarantee. However, physical damage such as a broken casing or glass breakage as well as damage resulting from water landings are excluded from this guarantee. Bräuniger can accept no liability for faults arising from any abuse or unapproved use of your instruments.

WARNING

In very rare cases it can happen that a flight instrument does not provide any data at all or the data is incorrect. Brauniger GmbH will not be held responsible for accepting any damage claims arising from a malfunctioning unit. Responsibility for ensuring the safe execution of his/her flights lies with the pilot alone.