

Logger Approval Document

Approval number: 0004

Approval given: Lausanne – March 19, 2015

Approval Application:

1. Logger

Logger name: Garmin eTrex 30

Model: Garmin eTrex 30

Manufacturer: Garmin International, Inc.
1200 East 151st Street
Olathe, Kansas 66062, USA
Tel. (903) 397.8200 or
(800) 800.1020
Fax (913) 397.8282
www.garmin.com

Serial numbers: All

Hardware version: All

Software version: 4.20 as of March 19, 2015

2. Remarks and requirements for competitions

- Device user interface is via a touch screen menu system and is highly customizable to user preferences. Events should have a process to setup every device identically before the event and to check that the setup is maintained throughout the event.
- Most user settings only affect what a user sees and do not affect how track data is collected. How track data is recorded (or not) can be easily changed by a user. Competitors must be advised that changing how track data is recorded is forbidden.
- Device presents as a mass storage device to a host device (PC, Mac, etc.) therefore it is possible to delete or modify data files on the device. Precautions must be taken to ensure that a competitor cannot access the device via the USB port. For example, tamper evident security tape can be used to seal the USB port and detect that the USB port may have been used.
- Altitude is measured by a barometric sensor that must be calibrated to QNH or a standard pressure according to the user manual. If QNH is not used then the altitude data must be corrected to QNH. It is not recommended to use the auto calibration feature of the device, see the suggested detail setup below.
- Data is stored in GPX file format with Garmin specific extensions, although Garmin specific extensions are not used for basic track data such as time, position, and elevation. GPX file format does not provide the ability to verify the integrity of a recorded track.
- File GarminDevice.xml in the device's root folder provides information about the device. The <ID> element provides a globally unique identifier for the device. To reduce the chance that track data is misfiled, <ID> should be used by downloader software to "link" the device to a competitor and to automatically name any data files.
- Data may be downloaded by a variety of software applications such as Garmin Mapsource and BaseCamp, OziExplorer, CompeGPS and customized balloon competition scoring systems (such as from Mathijs deBruijn, BFA and eKLIPS).

2.1. Example configuration

- Power up.
- Menu display
 - Scroll to “Setup”
 - Scroll to “Time”
 - Scroll to Time Format, select 24Hour
 - Scroll to Time Zone, select appropriate Time Zone
 - Scroll to Daylight Savings, select appropriate setting
 - BACK to “Setup”
 - Scroll to “Position Format”
 - Set Position Format to UTM/UPS
 - Set Map Datum to WGS84
 - Set Map Spheroid WGS84
 - BACK to “Setup”
 - Scroll to “Units”
 - Set Distance and speed to Metric
 - Set Elevation (vertical Speed)to Feet(ft/min)
 - Set Depth to Feet
 - Set Temperature Celsius
 - Set Pressure to Hectopascals
 - BACK to “Setup”
 - Scroll to “System”
 - Set Satellite system to GPS+GLONASS
 - Set WAAS/EGNOS to ON
 - Set Language to English
 - Set Battery Type to Alakline
 - Set USB Mode to Mass Storage
 - BACK to “Setup”
 - Scroll to “Tracks”
 - Set Tracks Log to Record,Show On Map
 - Set Record Method to Time
 - Set Recording Interval to 00:00:nn
 - Set Auto Archive to When Full
 - BACK to “Setup”
 - Scroll to “Altimeter”
 - Set Auto Calibration to Off
 - Set Barometer Mode to Variable Elevation
 - Set Pressure Trending to Save When Power On
 - Set Plot Type to Elevation/Time
 - Answer No to Do You Know The Correct Elevation?
 - Answer Yes to Do You Know The Correct Pressure?
 - Enter 1013.3hPa
 - BACK to “Setup”
 - Scroll to “Heading”
 - Set Compass to off
 - BACK to “Setup”
 - BACK to Menu display
 - Scroll to “Track Manager”
 - Press Current Track to Clear current Track
- Turn GPS Off!

3. Remarks and requirements for records

- May be used for distance and duration record attempts.

4. Approval:

| | |
|---------------------|---|
| Level of approval: | COMPETITIONS |
| Categories: | AA, AX, BA, BX |
| Competition type: | All Category 1 |
| Maximum Altitude: | Not specified |
| AX logger rules: | Pilot declared goals and electronic markers are not possible. |
| Special conditions: | Precautions must be taken for tamper proofing as described above. |