The LX7007 pro IGC

More than one 7 more. A completely new hardware design followed by numerous new software features.

New hardware design

The system consists of two units: one 57 mm and one 80 mm unit. The 57 mm unit remained unchanged compared to the LX 7000 system.
The 80 mm display unit has been completely re-designed, to meet the latest development features of modern microcontroller modules. The heart of the unit is a so called embedded microcontroller core module, where a high power microcontroller, 512 k B RAM (Random Access Memory) with back up power battery and 1MB flash memory is integrated. The mentioned hardware features guarantees a high reliability and safe system. We want to point out that all the important system data is stored into a non volatile flash memory and therefore a system break down is practically impossible. Even an empty back-up battery will negligibly reduce the system functionality. The unit is an approved IGC flight recorder without limitations.

Three independent communication ports

Modern gliding requires connection of several interface units (flight recorders, PDAs) to the main vario-navigation system using RS 232 communication. If the system has only one com port, data conflicts are a constant problem and aggravating to the pilot.
The LX 7007 has therefore three physically separated com ports. This solution will prevent any data collision during the operation or data transfer.

Power and data output for PDA

To power PDAs connected to the LX 7007, a high efficiency DC/DC converter with excellent 5V is integrated into the unit. This feature makes the use of a PDA very simple and safe. The LX 7007-PDA connection is accomplished through “plug and play” via cables supplied with the unit. The NMEA data output is fully compatible with SeeYou, Navigator and Winpilot.

Plug and play connection to Colibri and LX 20

Both types of mentioned flight recorders are powered and a bidirectional data exchange is possible any time on the ground. All necessary cables are supplied. Other types of flight recorders need special cables.

PC port

This allows connection of a PC at any time via the 5P round connector on the instrument panel regardless of any other devices (flight recorder, PDA) connected at the same time.

User port

This port is user configured. The connection is a 4P telephone type connector, where Tx, Rx and 12V DC power are wired. A plug and play connection to LX navigation GSM modem will make possible to extend the system to get an on line tracking system of the glider. A nearly “real time” glider flight observation will be possible via the internet.
After appropriate commands a flight stored in the flight record memory can be directly send to the OLC server.

Flarm Option

Flarm option includes a built in Flarm module which includes suitable transmitter and receiver and collision warning information. Such a unit has only one additionally antenna positioned on the rear side of the unit.

Upgrade of LX 7000 units

All LX 7000 units can be upgraded to the 7007 model.(Please ask your dealer for a quote.) It is important to know that only the 80 mm unit needs to be send for the upgrade. The 57 mm unit remains unchanged.

New features for glider pilots

As mentioned before a huge memory capacity for program code and user memory is available and therefore a long future of the unit is almost guaranteed.
The currently implemented new features are only the first step of firmware development process, which will follow in the near future.
Extended memory capacity for the airspace allows loading of nearly the whole European or US airspace, the area of interest is selected by the pilot.
After a firmware update nearly all the system data will remain (Airspace,TP&TSKdata base Airport data), this makes an update very simple and not too problematic.
Using of new faster microcontroller the refresh time after zoom change is reduced to nearly two seconds and a bold line is used to visualize the CTRs.
Online OLC optimization will help the pilot to optimize his flight, to get optimal OLC points.