

LX Mini Map pro

GPS Vario navigation system

Preliminary



- Full panel integral solution
- Operation via 6 push buttons and four rotary switches
- Each rotary switch has additionally a push button
- Excellent sunshine readable display (400x800 1000 cd) with touch
- Outline: 135x82x55 mm
- Connectable to LX Navigation vario unit
- Two COM ports
- Auxiliary power input
- Colibri II connectable without power adapter
- 4x LX system bus connectors for extensions
- Worldwide maps and airspace files available
- Portrait and also landscape orientation possible
- SD card interface for easy data exchange
- Traditional LX installation philosophy, 4x M6 bolts with holes for knob axels
- A system which offers an excellent price/efficiency ratio

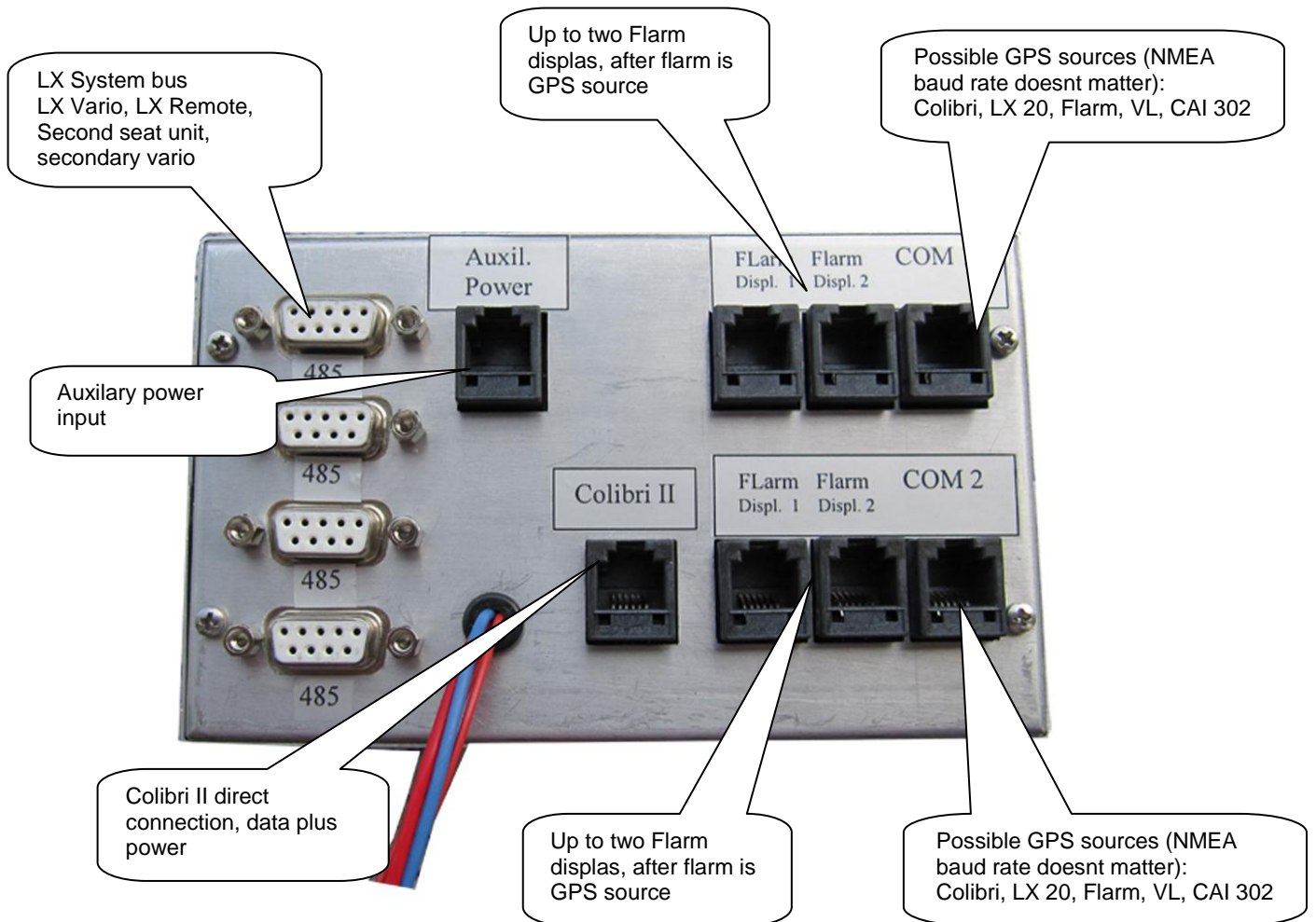
1 General description

The unit consists of a sunshine readable display, Windows CE 5 CPU module and interface which makes possible to connect GPS source, vario and other bus participants, for instance remote control stick.

Suggested SW is LX version of LK 8000 (derivate of XcSoar). LX Navigation adapted the original SW to be able to communicate with LX Navigation vario unit, remote control, double seater solution and secondary vario units. Another important feature of LX version is operation via push button and knobs. LX Mini Map Pro can be easily and souveren controlled by push buttons and rotary switches. The touch functionality remained unchanged, so the pilot is able to decide about manner of control. SeeYou Mobile can be also used as SW solution.

2 Connection of GPS and vario units

The unit construction highlight is high comfort and plug and play solutions by connection of interface units.



2.1 Using of LX Mouse

LX Mouse is a combination of GPS antenna and GPS receiver. This super miniature device is capable to be connected to any COM port of the LX Mini Map pro and both builds a Vario navigation system with GPS.

2.2 Using of Colibri II

As the Colibri II dimensions don't exceed size of a GPS antenna, the unit may be positioned on the place where GPS antenna has been usually positioned. It is important to point out that that a special plug which is provided exclusively for Colibri II connection, supplies Colibri II also with Power. In that case the Colibri II internal battery is always full and ready for operation in case of main power failure.

2.3 Connection of Flarm units

Flarm units can be connected directly to COM 1 or COM 2. There is also 12V wired, so that Flarm unit can be also powered by LX Mini Map pro. If Flarm is connected to COM 1 or COM 2 two Flarm displays can be added to every COM port. No Flarm splitters needed any more.

2.4 Connection of units having IGC standard connector

Any unit having IGC standard connector can be easily connected to LX Mini Map pro plug and play. A so called 1:1 cable should be used

3 Interaction LX Mini Map pro- LX Vario unit

A microcontroller built into LX Mini Map pro serves as an interface between navigation program and Vario unit which remained standard LX Navigation product. A special program called LX Service was developed to make vario initialization simple and effective. The program could be run from desktop of LX MM pro. Using of mentioned program makes possible that every pilot adjusts vario unit functions under his personal requirements. Some inputs done on vario units are automatically transferred to the LX MM and vice versa. See table for details.

Item	Vario	MM pro	Remarks
MC	synchronized*	synchronized	
Ballast	synchronized	synchronized	
Bugs	synchronized	synchronized	
Filter	local	NA	
Altitude	slave	sent to vario	

*means any change will affect both units, doesn't matter on which has happened

4 The Data Base

Terrain and topology data are free and every unit is preloaded with worldwide terrain and topology data. LX Navigation offers airspace data in .txt format. The airspace data are derived from LX Navigation airspace data, and updated in regular cycles.

Turn point data are acceptable in .cup format and also in Cambridge format.