

LX8000

Version 2.2 new features

(changes compared to version 2.1)



1 Introduction

New firmware version 2.2 is a result of continuous development of LX8000 software. Among some bug fixes and speed ups, there has been a lot of new functionality added for leisure pilots as well as for top competition pilots:

- Customization of navigational pages with LXStyler
- Flarm update firmware and obstacles with SD card
- load/save profile to SD card or USB reader
- increased size of second line in message box
- different types of airplane
- wind vector around airplane
- reduce warnings for FLARMS with options.
- warning can be relative or absolute bearing to other object.
- final glide with cross wind and colored MacCready setting.
- minimum MacCready setting as a function of wind

Bug fixes

- fixed bug with long line drawing (small zoom and distance to target big, then magenta line was wrong)
- fixed bug when parsing empty waypoints
- serial interface returns immediately if busy in read operation and returns no error
- fixed bug in InvAlt and InvDis function
- fixed bug DELETE in Save as dialog.
- fixed if NMEA is input through serial interface during boot.
- more info in crash file and significantly improved stability and program recover after crash.

2 Detailed information

2.1 Customization of navigational pages

Since version 2.2 all LX8000 settings and navigational page look and feel are stored in a profile.

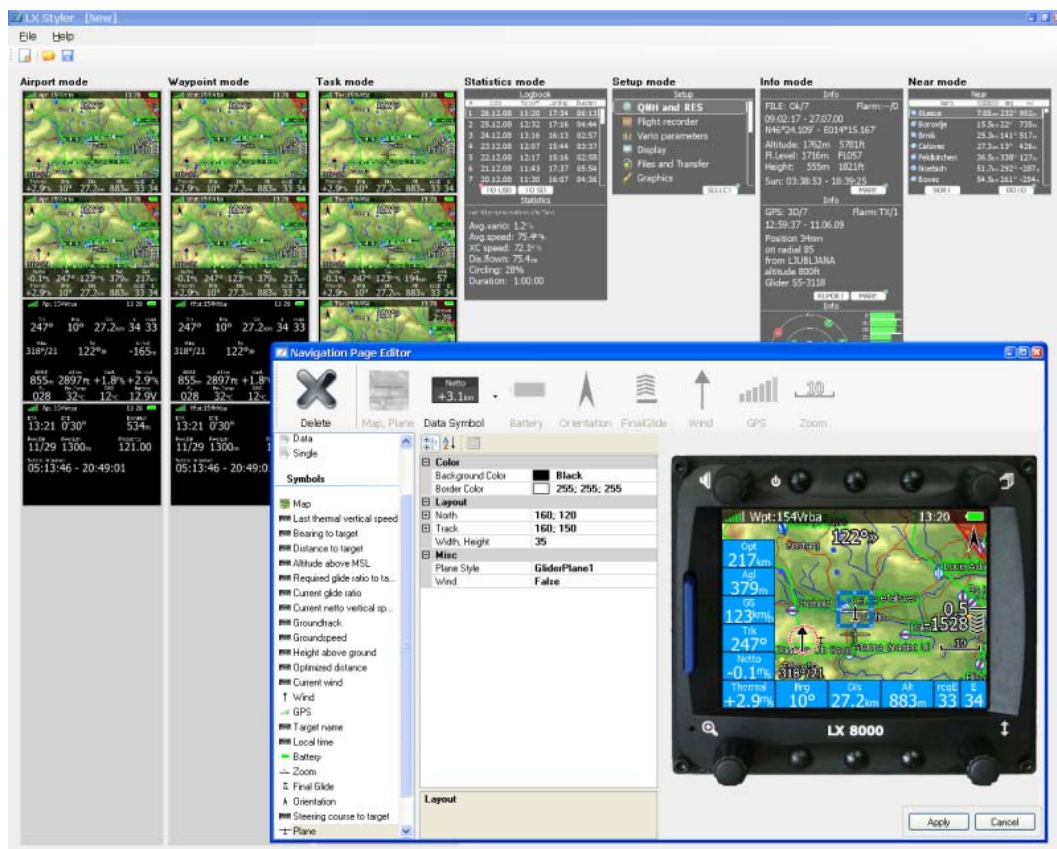


Use Pilots and Profiles dialog to add new profile, delete profile, load/save profile, change name for existing profile and activate profile. Active profile is profile which is currently being used.

Press TO USB or TO SD and profile will be stored to USB stick or to SD card. Profile is stored to a file with .lxprofile extension.

Press LOAD button to load a profile from SD card or USB stick. A profile will be copied to LX8000.

Profile file can be opened and manipulated with LXStyler program. LXStyler is special program designed to customize navigational pages look and feel. It can be downloaded free of charge from our web pages www.lxnav.com.



For more information about LXStyler please refer to LXStyler manual.

2.2 MacCready, ballast and bugs setting

MacCready functionality has been further enhanced. You will notice MacCready value displayed on final glide symbol is colored yellow or red. Colored value indicates your MacCready value is too low corresponded to current wind and selected target. Increase MacCready value.



2.3 Flarm

2.3.1 Flarm warnings

Flarm warnings will be raised only when FLARM module is built in LX8000. Using this dialog user can define which data will be presented by LX voice module.

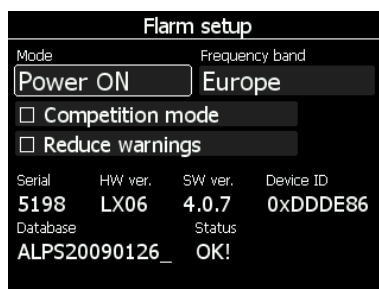


In version 2.2 you can also define the way direction to Flarm object will be given. There are three options:

- Relative bearing. In this option direction will be given relative to nose direction (e.g. Traffic 3' o clock, which means traffic, is on our right side).
- True bearing. Direction is give with absolute direction (e.g. Traffic from 330°)
- Relative/True bearing is combination of both methods. Relative bearings will be given when flying straight and true bearings will be given when thermaling.
- Complete message can be disabled in Sounds-Voice menu (Chapter **Error! Reference source not found.**).

2.3.2 Flarm setup

Flarm setup has been enhanced and new functionality is added.



Device ID shows Flarm unique ID, which is transmitted to other FLARMs. Flarm status message is normally OK. In case of any errors or warning, an error message will appear. User can change operation mode of Flarm unit, frequency and enables competition mode.

Three operation modes are available:

- **Power OFF** - Flarm unit is switched off
- **Power ON** - Flarm unit is switched on
- **Privacy ON** - Flarm unit works in stealth mode. Other Flarm units will not receive altitude and vario information about your glider. For collision warnings that mode has no influence.

Depends on which region/continent you are flying, set the correct frequency band.

Competition mode is prepared only for competition. If that mode is enabled, pilot will not be able to see any Flarm data on LX8000 map. Status of competition mode is recorded in IGC file and can be checked during scoring.



If you are flying on competition it is enough to turn on Competition mode. However, if you do not want other aircrafts to see you, then you shall switch mode to Privacy ON.

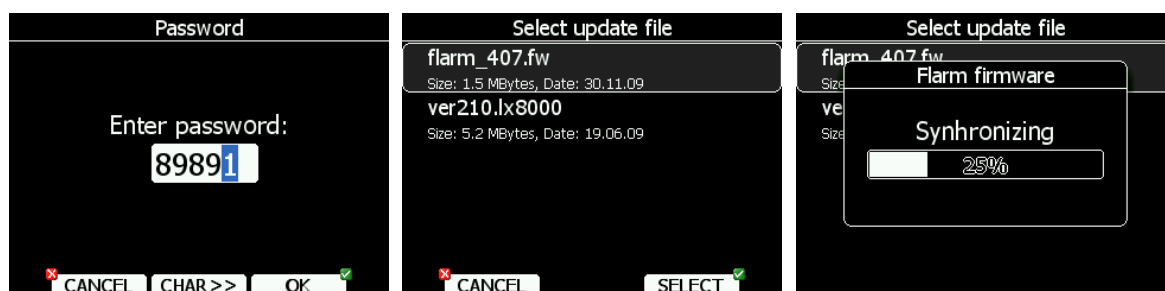
Reduce warnings will significantly reduced Flarm warnings. Use this option, if you are flying in gaggles of area with high density of other aircrafts.



We recommend you sign in at FLARMNET.org. Sign up is free of charge. Using FLARMNET sign up will allows others to see you not only with Device ID, but with you contest number and name.

2.3.3 Flarm update procedure

Flarm update procedure is very simplified since LX8000 version 2.2. Flarm is updated with SD card. From Flarm web page (www.flarm.com) download appropriate file and copy it to the SD card (e.g. flarm_407.fw). Enter password 89891 and select Flarm update file. Wait until finished.

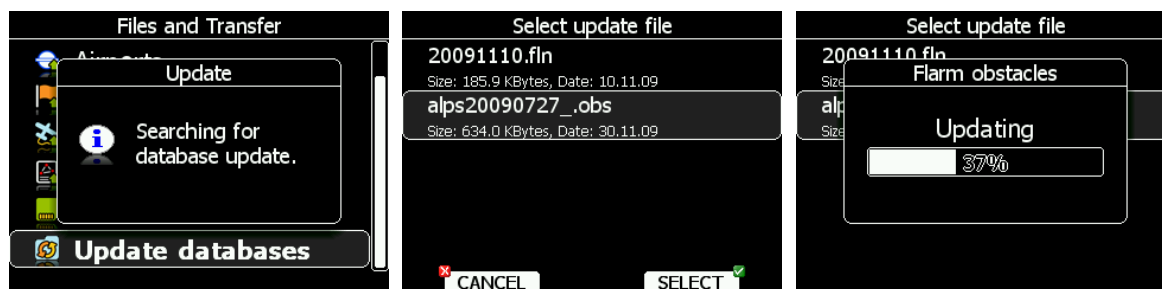


In case of problem, it is still possible to do an update using FLARMtool and serial connection. Please refer to older manual for detailed procedure

2.3.4 Uploading obstacles

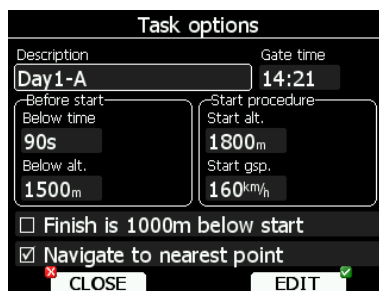
Also updating Flarm obstacles has been simplified in LX8000 version 2.2. Obstacles are updated through SD card. Go to Flarm webpage, download obstacle file (e.g. alps20090727_.obs) and copy it to SD card.

In Files and Transfer menu select Update Databases menu item. Select obstacle file and wait until finished.



2.3.5 Task options

Task options dialog is redesigned into more logical groups.



Enter task description. This is very useful on competitions, where you get more than one task per day. Some hints for name are DAY1-B, Triangle1000km etc.

Check "Finish is 1000m below start", when you are making a badge or record flight. If this option is checked, LX8000 will not navigate you to finish point elevation, but to altitude, which is going to be 1000m below start altitude.

Check Navigate to nearest point and LX8000 will navigate you to the nearest point on start zone or start line and finish zone.

There are also several options in this menu which will help competition pilot to have start less stressful.