

A Menu For Adjusting Bluefly Vario Audio In XCSoar
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These notes relate to the use of a Kobo ebook reader modified to run XCSoar. They are my best shot at the time of writing. I cannot guarantee they are correct or represent ideal solutions but will correct and update them as and when I can. Please inform me of any errors or better solutions you may find. The index for other Kobo/XCSoar notes can be found at:

<http://www.50k-or-bust.com/Kobo XCSoar/Kobo XCSoar.htm>

Originally it was not possible to adjust the settings of the Bluefly audio from within XCSoar. With XCSoar 6.8.2 and Bluefly firmware 10.m08 or later it is possible to create a menu system accessible from within XCSoar. This is outlined in the Bluefly blog:

<http://blueflyvario.blogspot.co.uk/2015/08/more-bluefly-and-xcsoar-integration.html>

I originally created a menu which can be used with XCSoar for controlling the BluFly audio which was available on my web site called "blueflyaudiomenu.xci". For simplicity this menu system used double commands for the "LiftOnThreshold" and "LiftOffThreshold" (and similar for sink) which were set in pairs. However it eventually came to light that the Bluefly module could not properly manage these double commands. I attempted to sort this out by using extra menu pages to separate "On" and "Off" thresholds but this made the menu file so long that the end of the file was not loaded into XCSoar.

My current solution to this is to have two different menu systems. One called "BlueflyAudioMenuBuzz.xci" which is for use with the "Buzzer" and one called "BlueflyAudioMenuNoBuzz.xci" which is for use without the "Buzzer". In both menus in order to reduce their size a compromise in the range of available thresholds has been made and users may need to alter them to accommodate their personal preferences. They are the best I can do at present.

I am not a very good programmer! It should not be difficult for someone with programming experience to modify them or generate their own. If you come up with better versions please let me know.

To use these menus:

- 1) Check you are using XCSoar 6.8.2 or later.
- 2) Check your BlueFly module is using firmware 10.m08 or later.
- 3) Download the menu files from the "Downloads" page:

<http://www.50k-or-bust.com/Kobo XCSoar/Kobo Downloads/Kobo Downloads.htm>

and place them in the XCSoarData directory on your Kobo.

- 4) Open XCSoar and go to:
Menu/Config/System/Look/Language,Input/Events (Ensure “Expert” is checked) and select the .xci file you wish to use.
- 5) Close XCSoar and re-open it.

A new box “Bluefly Audio” should now appear in the main menu. This brings up options for controlling the Bluefly audio.

Notes for using the menu:

- 1) These menus cannot show the existing settings of the Bluefly module. They can only enter new ones.
- 2) Settings with a star (*) next to them are my personal preferences.
- 3) Sink audio cannot be switched off, but it can be set to -10m/s . In 10m/s sink you will probably not care very much about any sound it is making!
- 4) The lift thresholds and the lift off thresholds are set separately. When a “lift on” threshold is selected the menu for “lift off” thresholds is automatically selected so the operator can then select an appropriate setting.
- 5) The “buzzer” is a device for indicating light lift. If you are unsure of how it works have a look at my article: <http://www.50k-or-bust.com/Basic Instruments/03 Basic Instruments - Variometers 01.pdf>
- 6) When using the buzzer ensure the sink threshold is set below the value of the buzzer threshold. e.g. If the Buzzer threshold was set to -0.8 m/s the sink threshold should be set to about -1.0 m/s or lower (larger negative number!).
- 7) To use the sink audio as a “Sink Alarm” select “0Hz” as the “Sink Increment”. This ensures a fixed tone will sound below the sink threshold.
- 8) “BlueFly Reset” on the first menu page re-boots the BlueFly module without changing any settings.

- 9) “Full Reset” on the first menu page goes to a submenu with only “Full Reset (Factory Settings)” and “Cancel” as options. “Full Reset” will reset all BlueFly settings to their defaults and re-boot the BlueFly module. It is useful if the settings have got into a state where the module will not function properly. After activating “Full Reset” it will be necessary to re-enter your desired settings.
- 10) These menus work by inserting an extra “key” into the fifth key position on the top menu of XCSoar. If future versions of XCSoar use this position for another function this menu will need to be modified to ensure it does not overwrite the XCSoar top menu.

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