# Enabling Bluetooth on an IFMB box

Requirements:

* IFMB hooked up to a combined power and RS232 communications cable
* The power and communications cable connected to a PC via a USB adapter.
* Terminal emulation software for RS232 communications

First, the box must be in RS232, Ichthystick mode.

Next, one accesses the setup menu over RS232 to change the Bluetooth board (ESD110) mode number. This is also how the serial number is entered.

Step-by-step this process is:

1. Hookup a sensor to the IFMB display box and power it up, wait until “measuring”
2. Press the Menu button to change settings
3. With < pointing to Protocol, press the Enter button to change to RS232
4. Press next to get to Format.
5. With < pointing to Format, press the Enter button to change to Ichthystick. The Baud rate will also change to 9600.
6. Press the Menu button until you are past Calibration and presented with option to save configuration.
7. Press the Enter button to save the configuration.
8. On your PC, at the search bar type devmgmt and enter, to bring up the device manager. Scroll down to COM ports and note which port appears when you plug the USB adapter into the PC.
9. Set up your terminal emulation software for the COM port identified, 9600 baud, 8 bits, no parity, 1 stop, no flow control.
10. Power down the IFMB.
11. While holding down the Next button, power up the IFMB
12. Wait 10 seconds and release the Next button, you should see “programming” displayed.
13. In your terminal emulator, hit “A” and return, which should bring up the menu in the text box below. This sometimes takes several tries and several power cycles of the IFMB box. If the box shows “measuring” you have to try the 10 second Next button power on process again.
14. When you see the menu with “Change ESD110 Mode number” this is what you want. Enter 2 to change the mode, and change the mode to “3”. In the example, I hit enter and it automatically went to mode 3, even after saying error.
15. Enter 3 to quit this menu. The box should startup, show measuring. Use steps 2-7 to set Protocal to Bluetooth and Format to Limno. Save the settings.
16. The box should restart in Bluetooth and should be visible on your phone’s Bluetooth under the name IFMB###. It takes a little while to report its name, and in the meantime will show a MAC address.

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1: Change Device Serial Number.

2: Change ESD110 Mode Number.

3: Quit Menu and return.

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Enter Menu number and press return key.

>>Changing ESD110 Mode value to MODE3..

ESD110 Bluetooth Parameters:

ERROR

OK

00019569ED91,IFMB024,MODE3,STANDBY,0,0,HWFC

OK

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1: Change Device Serial Number.

2: Change ESD110 Mode Number.

3: Quit Menu and return.

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Enter Menu number and press return key.

>>Quitting Menu.