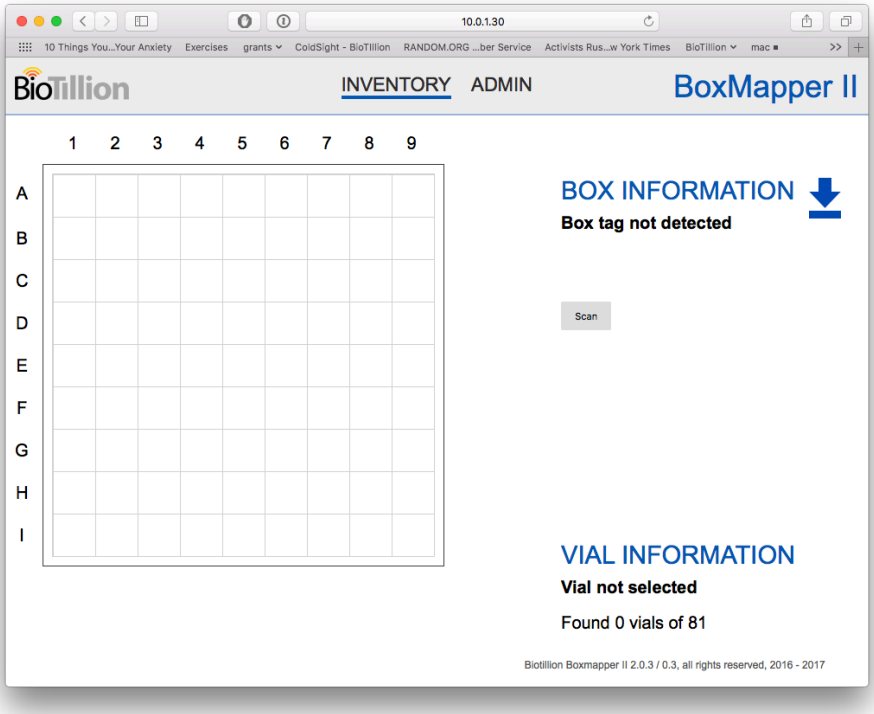
Quick Setup Guide - BoxMapper II

① Connect the BoxMapper II to the Ethernet using the port on the back of the BoxMapper II.

② Connect the power cord to the BoxMapper II. After about 30 seconds both LEDs will be solid green. This means that the BoxMapper II has booted and is waiting for an IP address from the router. After another 20 seconds the LEDs will both flash green - this can take more or less time depending on your router.

③ When both LEDs flash green the BoxMapper II is ready for use.

④ Open a web browser and connect to the BoxMapper II by entering the URL printed on the label on the bottom of the unit. You should see a screen similar to this (note that this screenshot was taken on a mac but the webpage is identical on a PC):



⑤ Place a box on the BoxMapper and press **Scan**. After a few seconds the box contents will appear on the webpage. The last 4 digits of the vial IDs are shown in the vial locations due to space constraints, but the full vial EPC can be seen by clicking on the vial.

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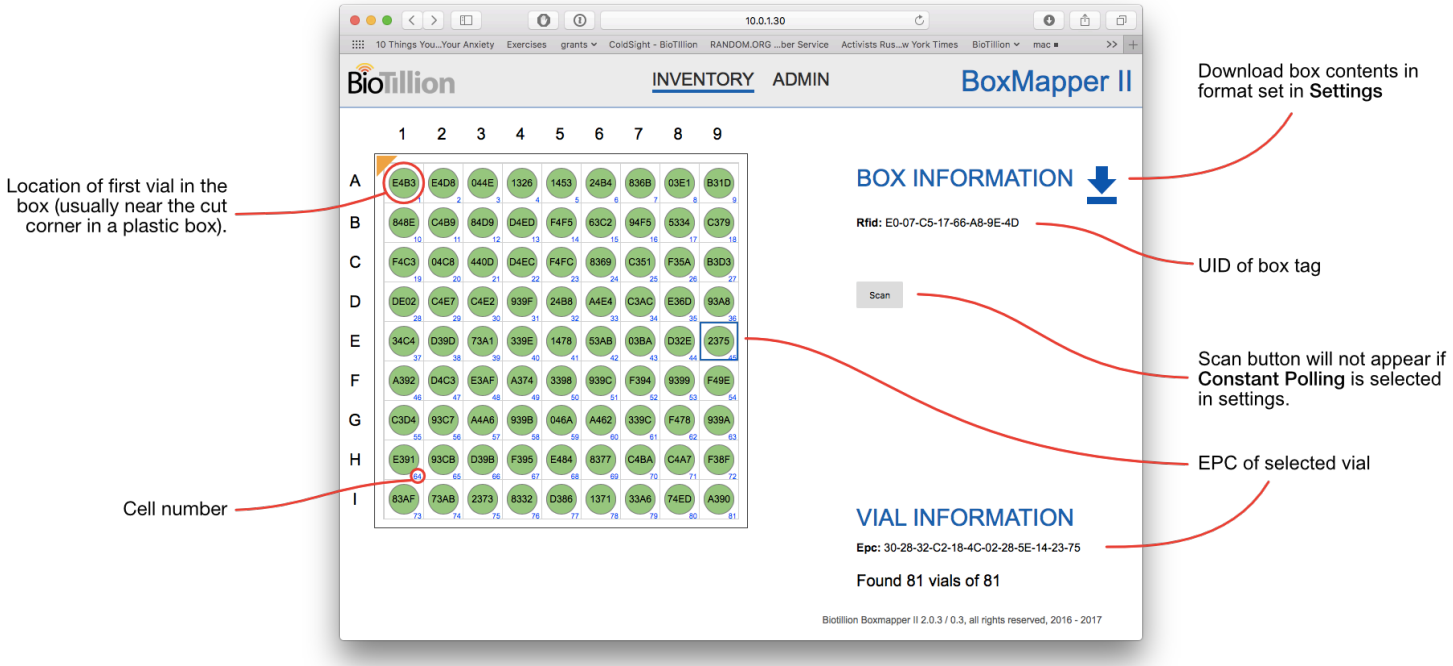

⑥ Clicking the blue Box Information Download arrow ( ) will download a file containing the box contents in the format specified in the settings window (see the **Settings** section below). The downloaded file can be opened in any spreadsheet program (such as Excel). It can also be imported into a LIMS program.

	A	B	C	D	E	F	G
1	Box Name	Box RFID	Row	Column	Cell	Time	Vial RFID
2		E0-07-C5-17-66-A8-9E-4D	A	1	1	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-8A-E4-B3
3		E0-07-C5-17-66-A8-9E-4D	A	2	2	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-8A-E4-D8
4		E0-07-C5-17-66-A8-9E-4D	A	3	3	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-8F-04-4E
5		E0-07-C5-17-66-A8-9E-4D	A	4	4	30/5/17 12:50	30-28-32-C2-18-4C-02-28-5E-25-13-26
6		E0-07-C5-17-66-A8-9E-4D	A	5	5	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-8B-14-53
7		E0-07-C5-17-66-A8-9E-4D	A	6	6	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-8B-24-B4
8		E0-07-C5-17-66-A8-9E-4D	A	7	7	30/5/17 12:50	30-28-32-C2-18-4C-02-28-5E-24-83-6B
9		E0-07-C5-17-66-A8-9E-4D	A	8	8	30/5/17 12:50	30-28-32-C2-18-4C-02-28-5E-21-03-E1
10		E0-07-C5-17-66-A8-9E-4D	A	9	9	30/5/17 12:50	30-28-32-C2-18-4C-02-28-5E-2D-B3-1D
11		E0-07-C5-17-66-A8-9E-4D	B	1	10	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-8A-84-8E
12		E0-07-C5-17-66-A8-9E-4D	B	2	11	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-91-C4-B9
13		E0-07-C5-17-66-A8-9E-4D	B	3	12	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-8A-84-D9
14		E0-07-C5-17-66-A8-9E-4D	B	4	13	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-91-D4-ED
15		E0-07-C5-17-66-A8-9E-4D	B	5	14	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-91-F4-F5
16		E0-07-C5-17-66-A8-9E-4D	B	6	15	30/5/17 12:50	30-28-32-C2-18-4C-02-28-5E-29-63-C2
17		E0-07-C5-17-66-A8-9E-4D	B	7	16	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-8A-94-F5
18		E0-07-C5-17-66-A8-9E-4D	B	8	17	30/5/17 12:50	30-28-32-C2-18-4C-02-28-5E-1A-53-34
19		E0-07-C5-17-66-A8-9E-4D	B	9	18	30/5/17 12:50	30-28-32-C2-18-4C-02-28-5E-21-C3-79
20		E0-07-C5-17-66-A8-9E-4D	C	1	19	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-91-F4-C3
21		E0-07-C5-17-66-A8-9E-4D	C	2	20	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-8B-04-C8
22		E0-07-C5-17-66-A8-9E-4D	C	3	21	30/5/17 12:50	30-28-32-C2-18-4C-02-29-39-93-44-0D

⑦ Select **ADMIN** at the top of the page to change the BoxMapper II settings. The various settings are described in the table below.

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Inventory Settings		Allows the following to be set in the internal database: 1. Colors to be assigned to vials, 2. Short-form names to be assigned to boxes, 3. Long-form names to be assigned to boxes, 4. Comments to be added to individual boxes, 5. Color definitions for the vials.
	Readers	Used for technical support.
	Vials	List of vials previously read by the BoxMapper II.
	Add Vial	Manually add a vial to the database.
	Assign Colors	Assign color to the selected vials*.
	Show online vials only	Only show vial presently on the BoxMapper II.
	Boxes	List of boxes previously read by the BoxMapper II.
	Add Box	Manually add a box to the database.
	Colors	Vial color definitions in the database*
Settings		Controls how the BoxMapper II reader functions.
	Alphanumeric	Controls the way the vial locations are reported. In a 9 x 9 box the vial in location **53** can be reported as location **68**, **6H, F8** or **FH** depending on these settings. However, the cell number does not change and the cell will always be reported as "**53**".
	Download format	The download format can be either Comma Separated Values (CSV) or Excel format.
	Scanning mode	Use default (**Normal**) setting.
	Constant polling	When **Polling Started** is selected the BoxMapper II is constantly trying to read a box. If this is selected, a box put on the BoxMapper might read partially, depending on when in the read cycle the box was put on the BoxMapper II. Wait another read cycle (about 2 seconds) to get an updated box display.
	Polling interval	Time between box scans in constant polling mode.
Database		
	Clear	Used for technical support.
	Download	Used for technical support.
	Upload	Used for technical support.
Hardware	**Reboot**	Reboots the BoxMapper II — used for technical support.
About		Technical information about the BoxMapper II.

* How to add colors to the vials in the BoxMapper II database will be covered in a separate document.

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Troubleshooting:

Connecting to the BoxMapper II using step ④ above might not work under certain network or PC configurations. If that appears to be the case, connect a USB cable between your PC and the BoxMapper II.

A new flash drive will appear on your system containing a single file named **ip_address.txt**. Open this file. It will contain something similar to this (the numbers will almost certainly be different):

```
ETHERNET IP: 10.0.1.30
USB IP: 192.168.7.2
```

The line starting with “Ethernet IP:” (red arrow above) contains the IP address given to the BoxMapper II by your router. Copy this address and paste it in the URL field of your browser. You should now see the BoxMapper II webpage.

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FCC compliance statement (United States)

This device complies with Part 15 of the Federal Communications Commission (FCC) Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference.

This device must accept any interference received, including interference that may cause undesired operation.

CAUTION:

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user’s authority to operate this equipment.