Manual for CLAMS

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We recommend our users to do CLAMS for at least 3 days, ideally 4 days.

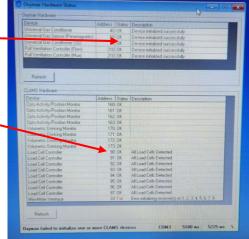
Starting a new experiment----Animal Preperation

- 1. We can do maximum 8 mice a time;
- 2. We have a form for the users to fill up. Users need to provide the ID, body weight and tail mark of each mouse.
- 3. Choose the right spacer for the mice. We use the shortest spacer for mice body weight less than 35 gram. The middle one for body weight from 35 to 45 gram. Animal bigger than 45 or older than 18 month, we can use the biggest spacer.
- 4. Prepare the feeder;
- 5. Put the feeder and the cages to the right place;
- 6. Take each mouse and put them into the metabolic cages;
- 7. Close the lid properly;
- 8. Check each sipper to make sure that it is not blocked.

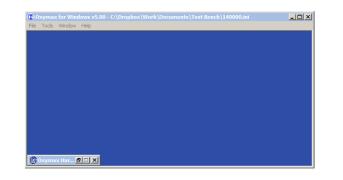
Starting Oxymax for Windows

- 1. Launch software: Oxymax for windows, the Startup window appears;
- 2. Use Default Hardware Configuration;
- 3. All of the hardware will be detected and initiated. If there is any error, a red Fail will show up in the "Status" column.
- 4. If nothing wrong with the hardware, you are ready for a new experiment. The last device, Mini-Mitter Interface is not used. So, it will always be "Fail".





1. Minimize the "Oxymax Hardware Status" window;



2. Click "File", choose "Last Used: 180072.exp";

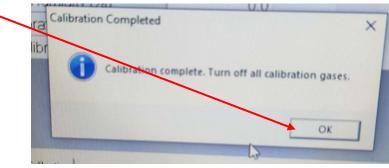


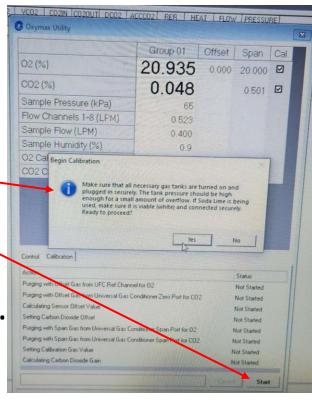
3. Click on "Experiment" and then click on "Calibration";

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Starting a new experiment----Calibration

- 4. Oxymax Utility will show up;
- 5. Click "Start";
- 6. You will see this, and turn on the Oxygen tank and Nitrogen tank and click "yes";
- 7. If the calibration is not fine, you will see something changed into red.8. If everything are fine, you will see this, and click "Ok".







Oxygen tank



Nitrogen tank

Remember to switch off the two gas tank after calibration!!!

9. Click on "Experiment" and then "Set up";

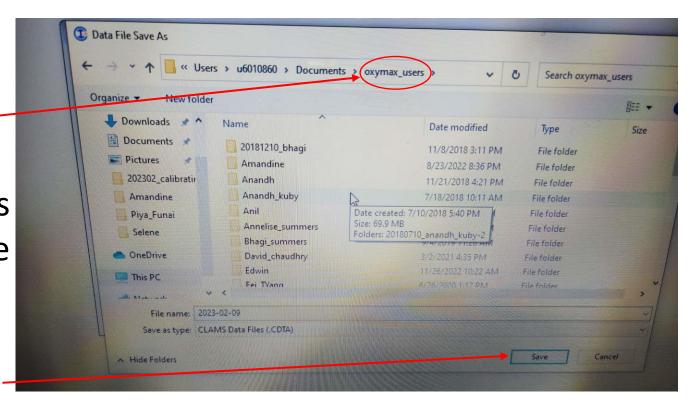
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10. Click on "Brows<u>e</u>" and then save the data to a proper file;

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0103	$\mathbf{\nabla}$	Subject 3	25.00				
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0106	$\mathbf{\nabla}$	Subject 6	25.00				
0107	$\mathbf{\nabla}$	Subject 7	25.00				
0108	$\mathbf{\nabla}$	Subject 8	25.00				
0109	$\mathbf{\nabla}$	Subject 9	25.00	0.50			
0110	$\mathbf{\nabla}$	Subject 10	25.00				
0111	$\mathbf{\nabla}$	Subject 11	25.00		•	Copy to	o All Subjects

10. Click on "Browse" and then save the data to a proper file;

This is the folder you want to save the data. If he/she is new user, we will make a new folder. Under this folder we make a new folder with the name of the date, for example: 20230210. And then we open this folder and click on "Save". A CDTA file will be saved including all the information that will be collected. The file will be automatically named as year-month-day.



11. You need to do threethings after directing whereto save the data:

- Check the cages you wanted to use;
- Fill up the Subject ID (this is given by the users);
- Fill up the body weight (this is also provided by the users).

Click Done after this.

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0106	\square	Subject 6	25.00				
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0108	\square	Subject 8	25.00				
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0110	\Box	Subject 10	25.00				
0111		Subject 11	25.00			Copy to .	All Subjects

12. Change the number according to how many mice you want to test. Then click on "OK".

Experiment Properties										
Metabolic Feeding Drinking Activity Other										
Measurement Settings										
Intervals 0 Cage	Settle	Measure								
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Cage Settle (s) 90 -	1 02:00	03:30								
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Reference Settle (s) 90 -	3 06:00									
	4 08:00									
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Reference Method 4 Samples	5 12:00 6 14:00									
	7 16:00									
8 18:00 19:30										
- Heat Calculation										
Standard: (3.815 + 1.232 x RER) x VO2	💿 kcal	🔘 kjoul	e							
K1 K2 K3	🔲 Norma	lize Heat								
Calculation Parameters Volume Mass Time Volume Rate Units ml Vkg Vhr V Accumulated Gas Units I										
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13. Click on "Experiment" again and you will be able to choose "run";

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Add Event F6									

14. During the experiment, do daily check every morning and afternoon.

- Check the "Warning log" to see if there is anything wrong;
- Check "Drinking" and "Feeding" to see if the mice acclimated properly to the cages.
- Check the sippers to confirm they are not blocked.

14. After 3 or 4 days, click on "Experiment" again and you will be able to choose "Stop";

(C 0)	xymax ® for Windows v5.66	- C:\Program Files	(x86)\Oxy	maxtCo	nfig\1800)72.ini			
File	Experiment Tools View	Windows							
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	Add Event F6								

14. Then click on "File" and then "Export all subject CSVs".

15. Get back to the folder that saved this experiment and copy the whole data folder to the user's thumb drive.