

Metabolic Cart Setup

1. Turn on iWorx Peak or PeakPro and allow it to warm up until the led stops blinking.
2. Attach the flow head tubing to Flow connectors.
3. Attach the Nafion tubing to the Sample in filter, so that the braided end attaches to the filter. **(Filter should be changed after 5 tests)**
4. Attach smooth-bore tubing to the Mixing Chamber.
5. Attach the clear tubing to the “Out from Analyzer” connector on the mixing chamber next to the smooth-bore tubing.
6. Attach the Flow head to the Mixing Chamber. Note that the red port must be facing the mixing chamber.
7. Attach the clear end of the Nafion tubing to mixing chamber next to the flow head.
8. Attach flow head tubing to flow head making sure the ribbed tubing attaches to the red port.
9. Click on LabScribe short cut on desktop.
10. On the Settings menu click on **FitnessAssessment**.

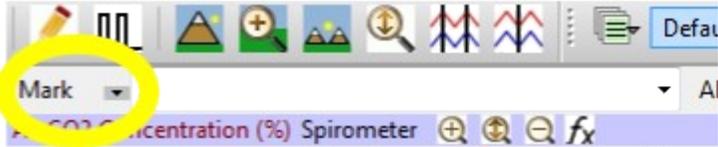
Quick Flow head Calibration & Gas Calibration

All steps will be prompted by the software

1. Click the Setup that is shown in the window on the left; enter subject’s info.
2. Click Quick Flow Calibration
 - Attach the open end of the smooth-bore tubing to the 3L calibration syringe.
 - Pull syringe all the way out. Follow the software directions.
3. After the Quick Calibration – a new window will open.
 - a. Enter the following
 - i. Type of Flow head – **Calibrated**
 - ii. **Click Load to load the .iwxfcd file (Flow Calibration)**
 - iii. Baseline: set to use first 10 seconds as zero
 - iv. Calibrate difference between cursors to **3L**
 - v. Move cursors to flat lines before and after the calibration recording.
 - vi. Click **Calibrate difference between cursors** button
 - vii. Click Done
 - viii. Disconnect the Syringe
4. Click Calibrate Gas Analyzer and follow the software directions.
 - a. You will be doing both a room air and know gas calibration
 - b. At the end of the gas calibration, close the regulator and disconnect the A-Cal-200 and reconnect the Nafion tubing to the Mixing Chamber
5. Follow the directions to enter in room air and gas concentration values.
6. Click OK. You are now ready to start your test.

Starting a Fitness Assessment Test

Complete the Metabolic Cart Setup first

1. Attach the head gear to the mask.
2. Instruct the subject to try on the assembly. Adjust the straps so that the mask fits the subject comfortably. Make sure there are no leaks around the mask.
3. Connect the smooth-bore tubing to the outlet of the non-rebreathing valve.
There are arrows on the valve that indicate the direction of air flow
4. Make sure the flaps on the non-rebreathing valve are facing the right way
5. Click in **Setup**. Enter the subject information and settings.
6. Fit the mask on the subject and make sure there are no leaks
7. Remove the smooth-bore tubing from the mixing chamber to record baseline.
8. Click the **Record** Button 
9. Wait at least 10 seconds for the system to zero
10. Reconnect the smooth-bore tubing to the mixing chamber
11. The test has now started
12. Mark the data for each stage of the exercise protocol you have chosen to use 
13. Click Stop  and then Click Save As to save your data
14. Click **Analyze** to pull up the automated metabolic calculations and chart generator
15. Enter any pertinent information
16. Click **Calculate** to generate graphs and a full chart of metabolic parameters
17. Click **Reports** to generate custom, printable reports