



Parr Instrument Company

**6400 Calorimeter
Operation**

Goal

- Learn how to run a test on a Parr 6400 Calorimeter.





Warning!

It is important that the Operating Instruction Manual be read and understood (**especially the safety instructions**) before using the calorimeter. Failure to do so could result in catastrophic failure.

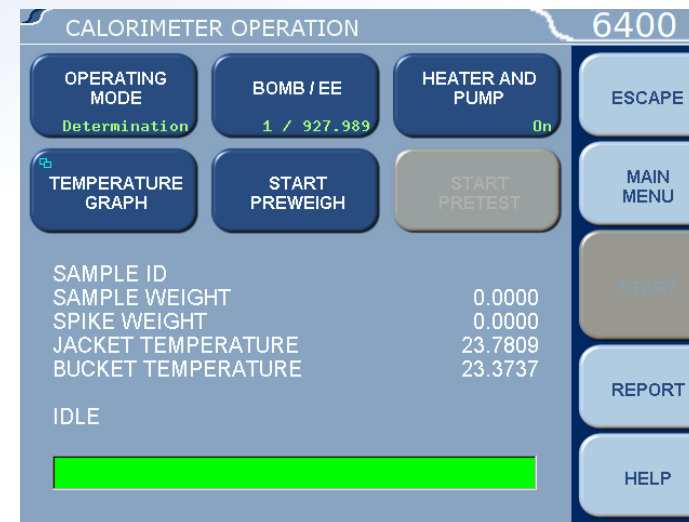
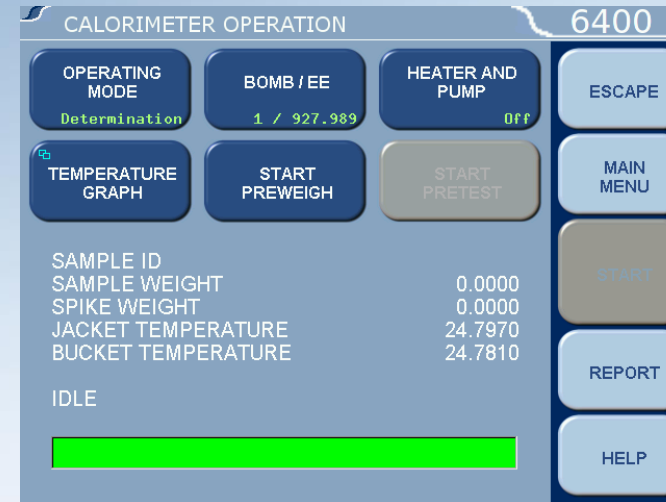
Step 1

- Turn on the calorimeter
 - The calorimeter will boot up to the main menu.
- Turn on the Oxygen Supply



Step 2

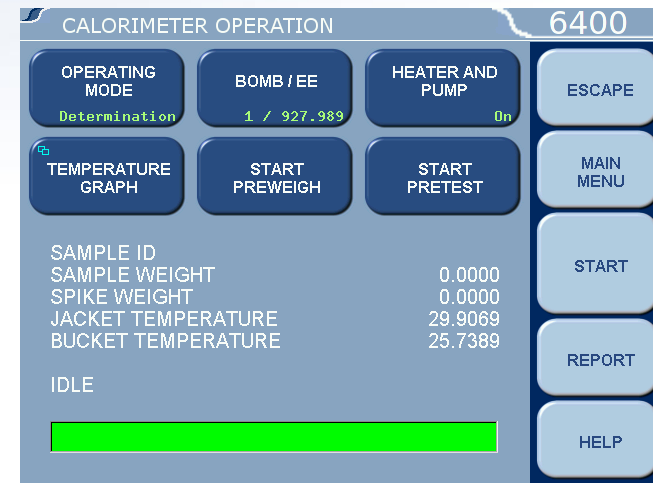
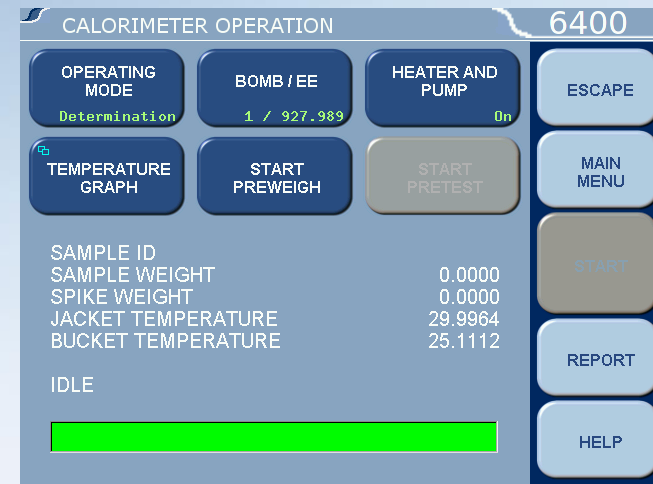
- Go to the Calorimeter Operation menu
- Turn on the Heater and Pump



Note:

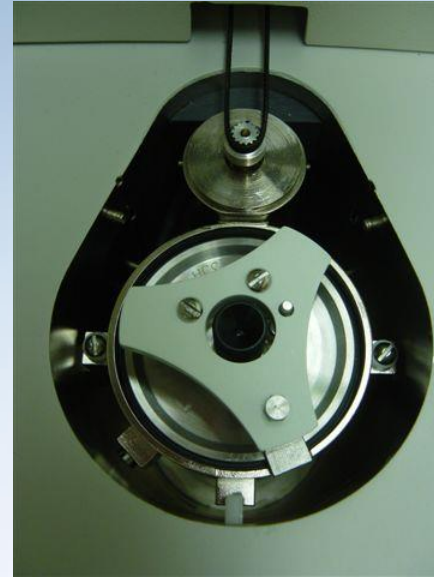
- The Start and Start Pretest buttons will be grayed out when the calorimeter is not ready to run a test or pretest.

- The jacket temperature must be at 30° C (\pm 0.5° C).
- *Once the jacket temperature is at 30° C it will be an additional 10 minutes before the Start and Start Pretest functions are available. This is true only if the pump and heater have been off for an extended period of time.*



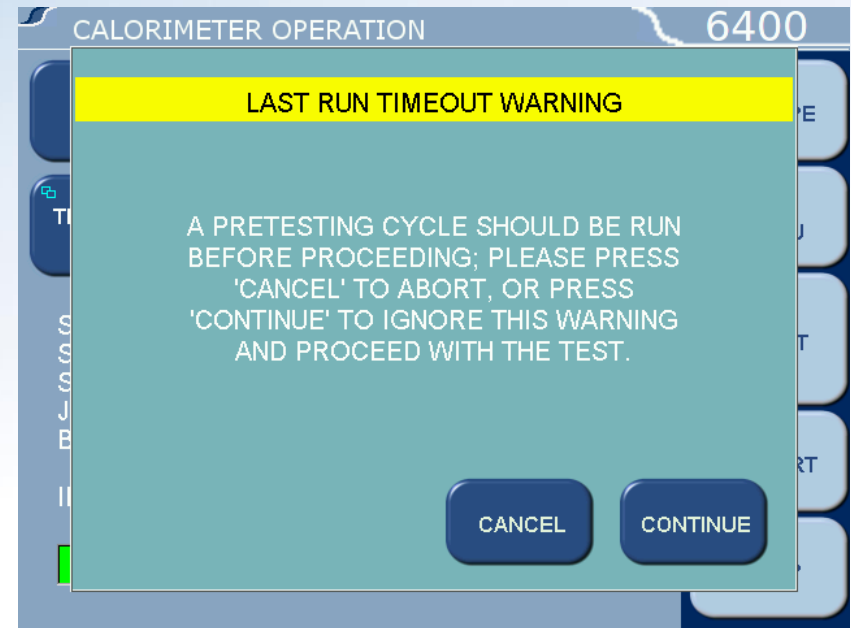
Step 3

- Load the head into the calorimeter
 - Place the head into the cylinder
 - Rotate the handle clockwise to lock the head into position
- Close and latch the lid



Step 4

- Press Start Pretest to begin a pretest
- Pretest:
 - A pretest is recommended if the calorimeter has been idle for more than 10 minutes from the end of the previous test



Step 5

- Prepare a Sample
 - Tare (zero the weight of) a sample cup
 - Weigh a sample to the nearest .0001 g



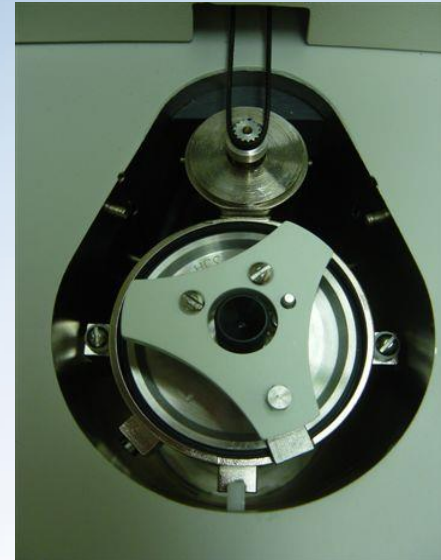
Step 6

- Put the sample on the head
 - Attach an ignition thread
 - The ignition thread should lay on top of a solid pellet
 - The ignition thread should not be buried in a powder or granulated sample
 - The ignition thread should be positioned just above the surface of a liquid sample



Step 7

- Load the head into the calorimeter
 - Place the head into the cylinder
 - Rotate the handle clockwise to lock the head into position
- Close and latch the lid



Step 8

- Choose Standardization (calibration) or Determination (unknown samples) for Operating Mode
- Press Start
 - Input the Sample ID
 - Input the Bomb ID
 - Input the Sample weight
 - Input the Spike weight (if spiking is turned on)

Step 9

- The test will automatically proceed through the following steps:
 - Fill Cycle
 - Preperiod Cycle
 - Fire the sample
 - Post Period Cycle
 - Exhaust the bomb
 - Cool/Rinse Cycle

Step 10

- Results
 - Depending on the settings on the Report Controls menu the calorimeter will display or print the results at the end of the post period or after the cool/rinse is complete
- Once the calorimeter is finished with the Cool/Rinse it will be ready for the next sample

Where to get more Information

- Please refer to the 587M Operating Instruction Manual for the 6400 Oxygen Bomb Calorimeter for additional diagrams and information.
- Operating Manuals can be downloaded from the Parr Instrument Company website (www.parrinst.com), from your local Parr dealer, or by contacting Parr customer service directly at parr@parrinst.com.



Let us build one for you.

www.parrinst.com

