

Step 1 Components & Software

A The Stable Optical Oxygen System ships with these components:

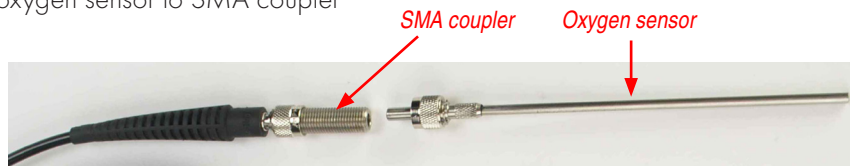
- Instrument
- RuggedO₂™ Oxygen sensor
- Bifurcated fiber optic cable
- USB cable
- Temperature sensor
- USB flash drive
- Software CD
- SMA coupler



B Install software from CD to local hard drive

Minimum System Requirements: 1GHz Pentium® II, 256MB RAM, 100MB free disk space; Windows® XP Professional SP2 or better, or Windows Vista™; Internet Explorer® 6.01 or higher; 17" monitor capable of 1024x768, 16-bit color; USB port (preferably 2), CD-ROM drive

Step 2 Instrument Setup

A Connect SMA coupler to single-connector end of fiber optic cable; connect oxygen sensor to SMA coupler



B Connect bifurcated fiber optic cable to LED  and Detector  on instrument front panel – either side of cable to either SMA connector

C Connect temperature sensor to Temp on instrument front panel

D Connect USB cable to instrument rear panel  and to computer

Caution: Do not look directly at LED output with naked eye during operation.

E Place sensors in matrix to be sampled

Step 3 Software Setup

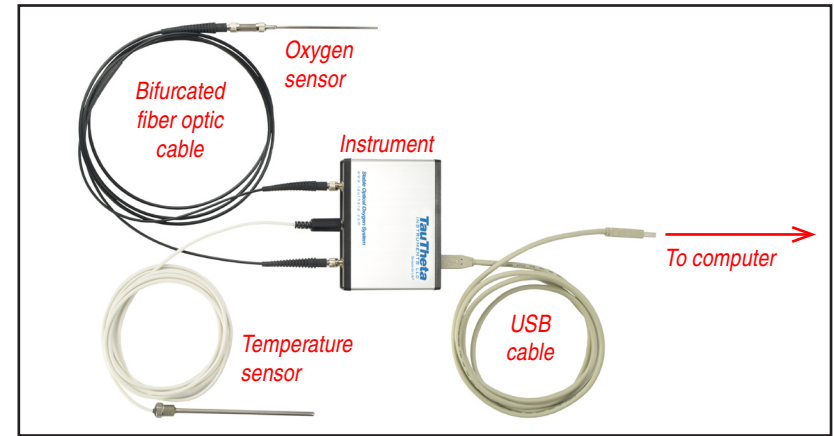
A Start the software



B The Setup panel displays first: Add an experimental note if desired, accept the default interval to save data (this can be changed later), click Done

C The Main window opens. See back of Quick Start Guide for more on the Main window


Stable Optical Oxygen System QUICK START GUIDE

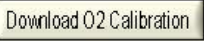


Step 4 Oxygen Sensor Setup

The USB flash drive packaged with the oxygen sensor contains a factory-generated calibration file specific to the serial number of the oxygen sensor. To insure accurate readings, follow these steps to load the sensor's factory calibration:

A On first connection, the software may prompt to load the calibration, and display the Download O₂ Calibration window. If not, go to the Advanced menu ▶ Calibration ▶ O₂ Calibration Download

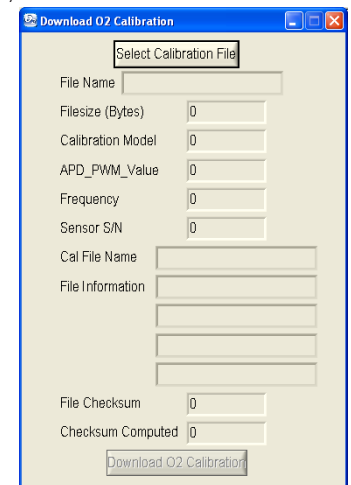
B Click . Navigate to and select the TauTheta Calibration (*.ttc) file for your oxygen sensor. It is located on the USB flash drive in the O₂ Sensor Calibration Files folder

C Click  to load the calibration file into the instrument. Oxygen readings will not be accurate until this is done!

D Perform a one- or two-point calibration:

Advanced menu ▶ Calibration ▶ User O₂ Calibration. For more information, see the Help menu or the operator's manual on the CD

To finish: Select File menu ▶ Exit. Disconnect the USB cable. Rinse and dry the sensors. Store the oxygen sensor protected from light. Note that the LED continues to illuminate at the specified Sampling Period as long as the USB cable is connected.



TauTheta Stable Oxygen Main Window

The screenshot shows the main window of the TauTheta Stable Oxygen Panel. The window title is "TauTheta Stable Oxygen Panel -- USB Serial No: 00001 21070 -- Oxygen Sensor No: 120993". The interface includes a menu bar (File, Edit, Advanced, Help), a toolbar with buttons for "Stop", "Clear", "Edit Graph...", and "View History...", and two data plots. The top plot shows "O2, Torr" and the bottom plot shows "O2%". Both plots have "Auto Scale" checked and "Data Plotted" set to the respective parameter. The left sidebar contains sections for "Data File", "Instrument Parameters", and "Instrument Controls".

Instrument serial number (points to USB Serial No: 00001 21070)

Sensor serial number (points to Oxygen Sensor No: 120993)
If number here does not match sensor, load the cal file (see Step 4)

Stop data collection (points to Stop button)

Clear graphs (points to Clear button)

Change graph appearance (points to Edit Graph... button)

Zoom a graph of saved data (points to View History... button)

Data file location & name (*.csv format) (points to Data File field: C:\TTI-USB Stable Oxygen\TTIO2_0000121070_11-09-2007)

Instrument status: (points to Status field: Normal)
Green = OK
Red = Error

Current readings at current Sampling Period (points to O2, Torr, O2%, mg/L, %Sat, Pressure, Torr, and Temperature, C fields)

Instrument turns on & samples at specified Sampling Period (points to Sampling Period (Sec) field: 2.0)

Instrument turns on & samples on demand (points to Fixed Rate and Push to Measure radio buttons)

Select parameters to plot (points to Data Plotted dropdown menu)

To specify y-axis limits, deselect Auto Scale (points to Y Max and Y Min fields)

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