Q-TRAK™ XP INDOOR AIR QUALITY MONITOR

eXPand Your Indoor Air Quality Investigations

IAQ and Q-Trak XP Webinar

October 29, 2025

Nathaniel Fox
Sr. Global Product Specialist

Agenda

+ IAQ, IEQ, and Standards
+ QTrak XP Introduction
+ Hardware
+ Sensor types
+ GUI navigation
+ Data logging
+ Exporting data
+ Field calibration
+ Resources

Indoor Environmental Quality - IEQ

+ Indoor Air Quality (IAQ)
  - Relates to the quality of the air in an indoor environment
  - We spend ***up to 90+%*** of our time indoors
+ Indoor Environment Quality (IEQ)
  - Relates to a wider range of indoor factors:
    - Air
    - Thermal comfort
    - Light
    - Sound

The importance of IEQ

1) Heath and well being of occupants

- Mild discomfort – Serious illness
- Thermal comfort
- Sick Building Syndrome (SBS)

2) Productivity of the occupants

- Cognitive impairment
- Reduced Absenteeism
- Lethargic

3) Overall well-being of the building

- Energy efficiency
- Building certifications

Data Interpretation and Analysis

+ What is normal?
+ Standards and Guidelines:
  - US EPA: National Ambient Air Quality Standards
  - OSHA Permissible Exposure Limits (PELs)
  - NIOSH
  - ASHRAE (62.1, 241, 44)
  - ACGIH / AIHA
+ Understanding relevant standards is important for data contextualization

What is Normal?

Parameter	Normal	Elevated	Critical
CO_2	< 900 ppm Monitor trends	900-1,200 ppm Increase outdoor air supply	> 1,200 ppm Dispatch technician to inspect HVAC
PM 2.5	< 12 µg/m^3 Standard operations	12-35 µg/m^3 Deploy portable air purifiers	> 35 µg/m^3 Investigate source immediately
TVOCs	< 2x Baseline Monitor baseline	Spike 2x-4x Increase ventilation to flush space	Sustained > 4x Dispatch EHS for assessment

ASHRAE Standards

+ 62.1 and 62.2 Ventilation and Acceptable Indoor Air Quality (IAQ)
  - Provide indoor air quality (IAQ) that's acceptable to human occupants and that minimizes adverse health effects.
+ 241 Control of Infectious Aerosols
  - Reducing the risk of disease transmission through exposure to infectious aerosols
+ 44 Wildfire
  - Protecting Building Occupants from Smoke During Wildfire and Prescribed Burn Events

ASHRAE 62.1 and 62.2 IAQ

+ Minimum ventilation rates and other measures intended to provide indoor air quality (IAQ) that's acceptable to human occupants and that minimizes adverse health effects.
+ Procedures and methods for meeting minimum ventilation and IAQ requirements to engineers, design professionals, owners, and jurisdictional authorities where model codes have been adopted.
+ Key measurements: PM2.5, Formaldehyde, Ammonia, CO

ASHRAE 241 Infectious Aerosols

+ Establishes minimum requirements to reduce the risk of disease transmission through exposure to infectious aerosols in buildings. The implementation of this standard brings numerous benefits to occupants and promotes healthier environments
+ Reduce exposure to various pathogens, including the SARS/COVID-19, influenza viruses, and other disease-causing agents
+ Requirements covering air system design, installation, operation, and maintenance

ASHRAE 44 Wildfire

+ Smoke Readiness plan

1. Purchase Smoke Preparation Supplies.
2. Upgrade HVAC System Recirculation Filter.
3. Maintain the HVAC System
4. Optimize System Airflows
5. Prepare to Add Supplemental Filtration
6. Assess Filter Conditions
7. Limit Smoke Intrusion
8. Prepare to Monitor Indoor PM2.5
9. Determine How to Create Temporary Cleaner Air Spaces
10. Anticipate Sources of Indoor PM2.5

The Solution

Q-Trak XP Indoor Air Quality Monitor

Combining Multiple IAQ Instruments into a Single
E**XP**andible Instrument Platform

Legendary Q-Trak - Expanded

Q-Trak XP

+ Eliminates the need for using multiple instruments
  - Combining particle measurement and multiple gas sensors with standard IAQ parameters in a single hand-held instrument
  - Temp, RH, Particle and CO_2 measurements are all standard
  - Up to 26 simultaneous IAQ measurements
+ Designed for Flexibility to expand your IAQ Services
  - User configure up to 6 user-installed gas sensors
  - Separate work-flow for % of Outdoor Air calculations
+ Intuitive navigation with color touch-screen display

TSI Position in IAQ

+ Q-Trak/IAQ- Calc set new standards for IAQ instrument in the past
+ Earned reputation for high quality, dependable and accurate IAQ instruments
+ Q-Trak has been a benchmark for IAQ investigations since 1994
+ **Reputation for durability in the rental space**

Q-Trak 8550

Q-Trak 8552

Q-Trak 7575

IAQ Calc 7545

IAQ Calc 7525

IAQ Calc 7515

7585 Q-Trak XP

+ Leader in IAQ instrumentation
+ Continues the legacy of Q-Trak dependability and durability
+ Expanded performance for todays professional
  - Mass + Gas in a single lightweight instrument
  - Field swappable sensors
  - Field calibration capability for gas sensors, temperature, relative humidity, barometric pressure and particulate matter
  - Flexible and configurable

Value to Customers

+ Particles and Gas monitoring in a single instrument
+ Additional sensors
  - Get just what you need
+ All data in *a single data set* – No merging of data from different instruments
+ Flexible – field upgrades, configuration and calibration of gas sensors

Who are our customers?

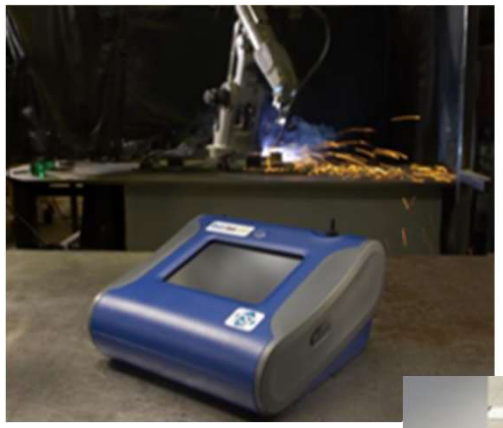
+ Multi-disciplinary professionals - special focus on Indoor Air Quality
  - Industrial Hygienists
  - OH&S Engineers & Professionals
  - Environmental Engineers
  - Building Service professionals
  - IAQ Consultants
  - Remediation companies
+ Independent Consultants
  - Environmental Consultants
  - IH & Occupational Health - Specialists in IAQ
  - Dedicated Staff - Environmental Scientists & Specialists
    - Public Schools, Universities, Hospital Systems, Disaster Recovery firms, Building Management Companies
+ Researchers
  - Building science / engineers
  - Academia

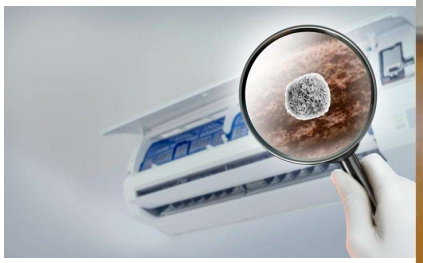

Who are our customers?
AIRBOX
Giving You Peace of Air
CAT
CDC
HARVARD
Honeywell
PG&E
UCLA
Health
BARRETT
ENVIRONMENTAL
COMCAST
Université de Montréal
BOEING
RIVIAN
CDPH
California Department of Public Health
MAYO CLINIC
FEDERAL AVIATION ADMINISTRATION
CALGARY SPORTS AND ENTERTAINMENT CORPORATION
CORNELL UNIVERSITY FOUNDED A.D. 1865
NAVAL MEDICAL CENTER SAN DIEGO
STERLING
IAQ Consultants
CARNEGIE MELLON UNIVERSITY
PITTSBURGH PENNSYLVANIA 1900
FORTIFIED
STRUCTURAL SOLUTIONS
USA
NIOSH
NEW JERSEY RUTGERS THE STATE UNIVERSITY OF NEW JERSEY
VILLANOVA UNIVERSITY
VA Health

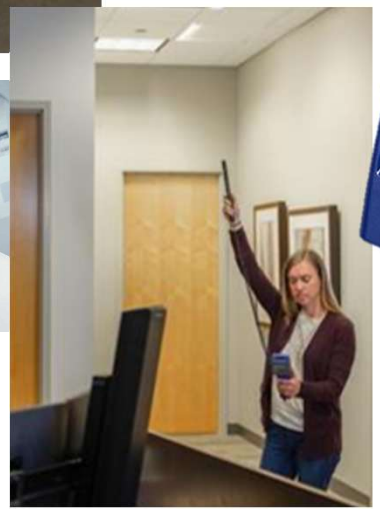
Challenges for IAQ Professionals

+ Wide range of sources for indoor air pollutants including gases & particulates
  - Building design & materials / Furnishings / Cleaning chemicals
    - Particulates, Ammonia, Formaldehyde, VOC, Chlorine, Hydrogen Sulfide
  - Manufacturing processes
    - VOC's, Particulates
  - 3D printing / Office Equipment / Outdoor pollution
    - Ozone, dust & particulates, fumes, Nitrogen Dioxide, Nitric Oxide
+ Standard IAQ parameters are considered "classic" or "basic"
  - Temperature, Relative Humidity, CO_2, CO
+ Growing need to efficiently expand beyond traditional IAQ parameters.
  - Particulate Matter, VOC's, Ozone, Formaldehyde, Ammonia, others…

IAQ Applications







Challenges for IAQ Professionals

+ Multiple instruments needed to measure particles, gases, temperature, humidity, … all of which can impact IAQ
+ Increased need for consultants to adjust services to the expanding IAQ investigations
+ Serving a broader range of customers and applications
  - Not just investigating complaints from workers.
+ Combining data from multiple instruments into a single data log for analysis, comprehensive reports and client recommendations

7585 Q-Trak XP Hardware Overview

- Unpacking
- What's included
- Accessories & Replacement Parts
- Sensor options
- Connecting IAQ Module
- Battery Installation and Calibration
- Sensor Installation
- Instrument Power
- Basic Use
- Specs

7585 Q-Trak XP Includes:

+ 7585 instrument comprised of three main components
  - 7580 - Base unit
  - 801430 - IAQ Module
  - 801399 - CO_2 sensor

7580

+

801430

+

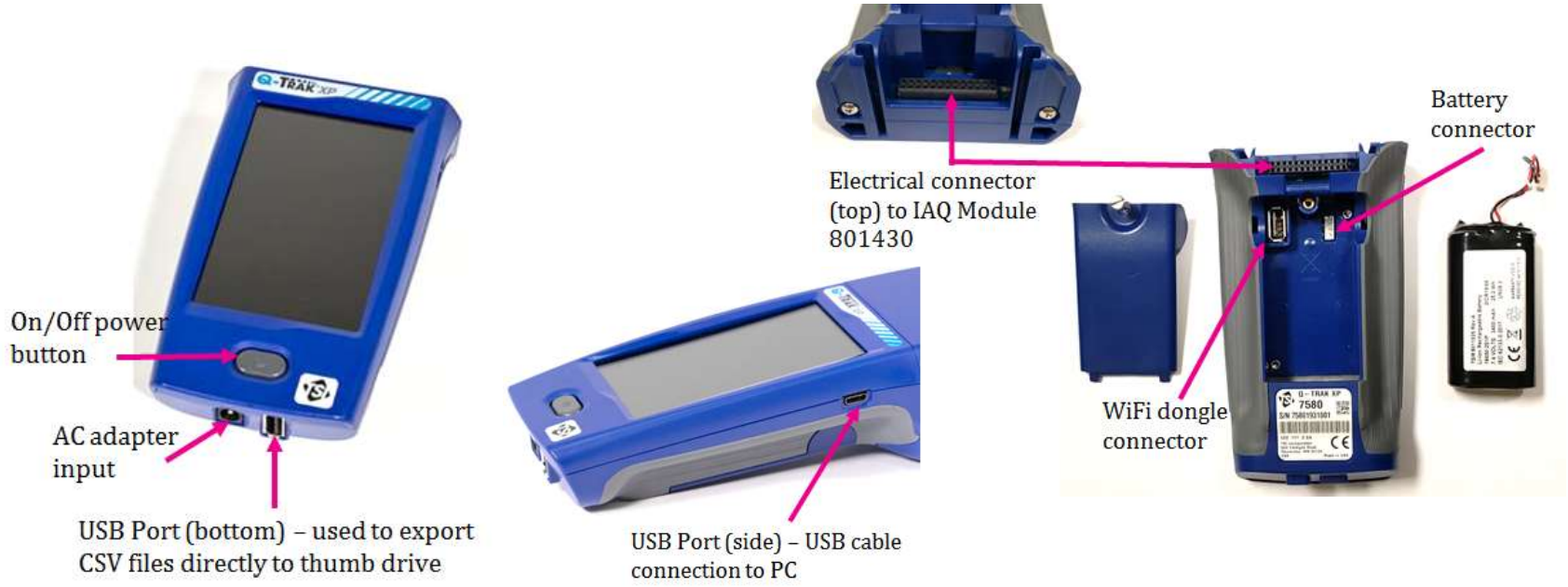
801399

=

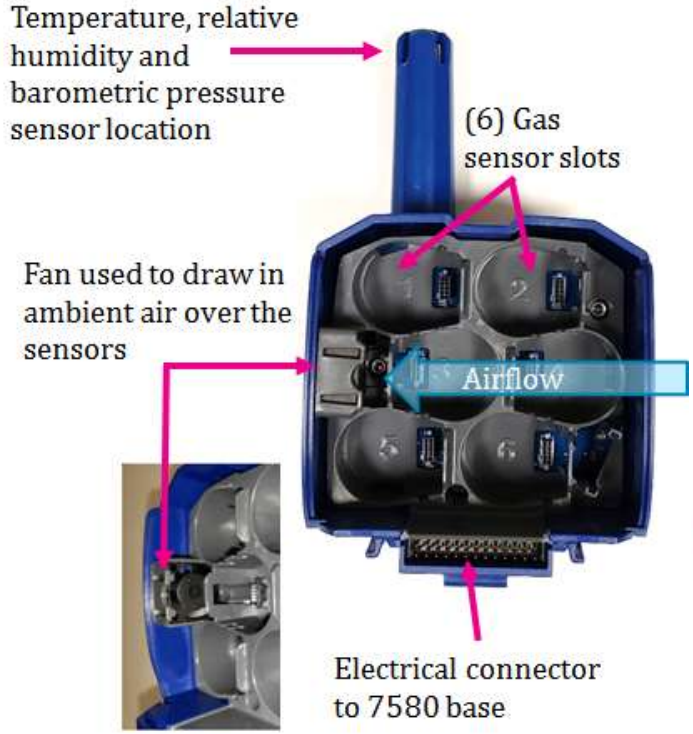
7585

7585 Q-Trak XP Includes:

+ 7580: Base unit
  - The core of the instrument with touchscreen display



7585 Q-Trak XP Includes:



+ 801430: Multi-Sensor IAQ Module with PM, T, RH and BP sensors plus 6 open sensor slots
  - A removable module that houses all of the sensors of the instrument
  - Must be attached to the base to take measurements

7585 Q-Trak XP Includes:

+ Includes

- 801399 - CO2 gas sensor - user to install
  - VOC/CO2/CO installed by Raeco
  - Optional VOC and HCHO (Formaldehyde) sensors

- 800120 - Gas calibration cap
  - Used to perform gas sensor field calibration

- 800123 - Li-ion battery pack
  - Rechargeable battery that lasts ~8 hours

- 800122 - AC power supply with universal adaptors
  - Used to charge the battery and to allow for long term data logging sessions

7585 Q-Trak XP Includes:

+ 804001 - USB cable
  - Connects the instrument to a PC
  - Transfers data to TrakPro Ultra

+ 800121 - Carrying case
  - Protects the instrument and accessories during travel and in storage

+ Calibration certificate
  - Comparison of the sensor measurement to a traceable reference standard measurement

CERTIFICATE OF CALIBRATION AND TESTING

Model Name	Carbon Dioxide Gas Sensor
Model Number	801399
Serial Number	13992102007

+ TrakPro™ Ultra Data Analysis Software
  - Allows for seamless data transfer to a PC
  - Free Download https://tsi.com/software-firmware-wizard

Accessories

+ 801430 - Multi-Sensor IAQ Module with PM 2.5, T, RH, BP and 6 open sensor slots for expansion
  - Only need to send the module back for service
  - Customers can order another as a backup or populate with a different se of sensors

+ 800124 - Wi-Fi Dongle
  - Transfer data wirelessly to TrakPro Ultra
  - *PC and 7585 Q-Trak XP must be on same network*

+ 800129 - Battery cover with tripod mount and tabletop tripod
  - Includes 800125 and 800128

+ 800125 - Battery cover with tripod mount
  - Used to mount the Q-Trak XP onto a tripod (ours or others)

+ 800128 - Tabletop tripod
  - Desktop tripod used to keep the instrument slightly elevated during hands free or long term studies

Gas Sensor Options

CERTIFICATE OF CALIBRATION AND TESTING

TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA
Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

Environment Conditions		
Temperature	74.14 (23.4)	°F (°C)
Relative Humidity	23.4	%RH
Barometric Pressure	29.11 (985.8)	inHg (hPa)

Model Name	Carbon Dioxide Gas Sensor
Model Number	801399
Serial Number	13992102007

☒ As Left ☐ As Found ☒ In Tolerance ☐ Out of Tolerance

– Calibration Verification Results –

Zero Gas Reference Concentration (ppm)	Zero Gas Sensor Concentration (ppm)	Zero Gas Acceptable Concentration Range (ppm)
0.0	2.2	-50.0– 50.0
Span Gas Reference Concentration (ppm)	**Span Gas Sensor Concentration (ppm)**	**Span Gas Acceptable Concentration Range (ppm)**
5058.0	5022.5	4988.0– 5088.0

TSI does hereby certify that the above described instrument conforms to the original manufacturer's specification (not applicable to As Found data) and has been calibrated using standards whose accuracies are traceable to the United States National Institute of Standards and Technology (NIST). The calibration standard gas concentration is verified by ILAC-MRA recognized ISO 17025:2017 accredited vendor. TSI's calibration system is registered to ISO 9001:2015.

– Standard –

Cylinder	Calibration Gas	Serial Number	Last Calibration	Expiration Date
Span Gas	CO2	FF21547O	06-15-20	06-06-25
Zero Gas	N2	GT-3279	11-16-20	11-16-28

Raeco Standard

+ 801399 - Carbon Dioxide
+ 801401 - Carbon Monoxide
+ 801407 - TVOC, ppm (high)

Raeco Optional

+ 801409 – Formaldehyde
+ 801408 - TVOC, ppb (low)

Other

+ 801400 - Chlorine
+ 801403 - Ammonia
+ 801402 - Hydrogen Sulfide
+ 801404 - Nitric Oxide
+ 801405 - Nitrogen Dioxide
+ 801406 - Ozone

+ Factory calibrated, plug and play sensors
  - Each sensor has a serial number, includes a calibration certificate and come in a seal tight container

Installing Sensors

Ensure the instrument is powered OFF

1. Remove the sensor module cover
2. Position the sensor over an any available slot
3. Push down and listen for a click to confirm sensor is connected properly
4. Attach cover to the sensor module

1.

2.

3.

4.

Field Configurability Puts You in Control

- CO_2 (standard)
- Add up to 5 additional gas sensors as you need them – Snap-in-place design
- Replace gas sensors as needed in the field

11 Sensors Options:

CO Carbon Monoxide	**CO_2** Carbon Dioxide	**NO** Nitric Oxide	**O_3** Ozone	**CL_2** Chlorine		
CH_2O Formaldehyde	**VOC_L** VOC Low	**VOC_H** VOC High	**NO_2** Nitrogen Dioxide	**NH_3** Ammonia	**H_2S** Hydrogen Sulfide	

Providing Power to the Q-Trak XP

+ The instrument can be operated with or without a battery using the AC adapter
  - TSI recommends operating the Q-Trak XP with a battery even when an AC power supply is connected
  - Having a battery installed **shortens the warm-up** time needed for sensors **to make accurate measurements**
+ AC adapter
  - Charges the battery
  - Powers the instrument during long term, unattended studies
+ To operate the instrument with AC adapter:
  1. Plug the AC adapter into an electrical outlet
  2. Plug the other end into the instrument below the I/O button

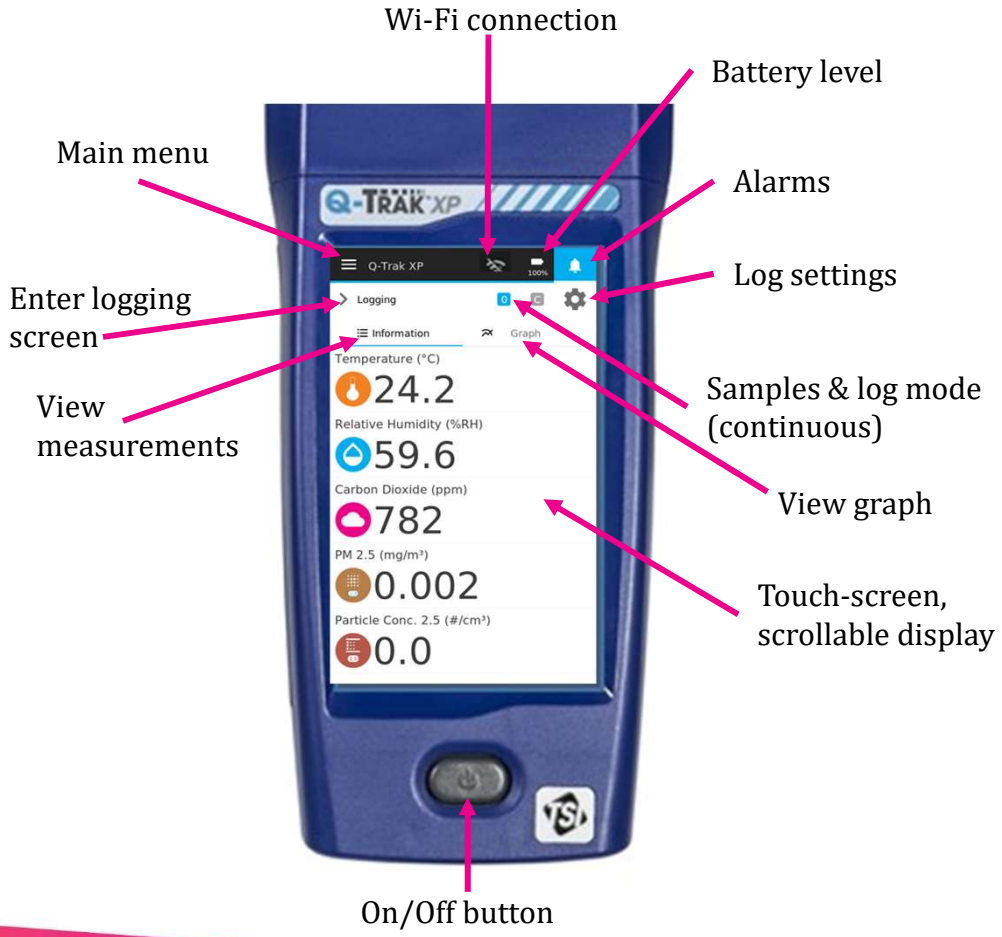
Power unit up

+ Press I/O to turn unit on
  - Takes approximately 35 seconds

+ "Welcome to Q-Trak™ XP" page is displayed
  - Select language and time zone
  - Press DONE

Dashboard Screen

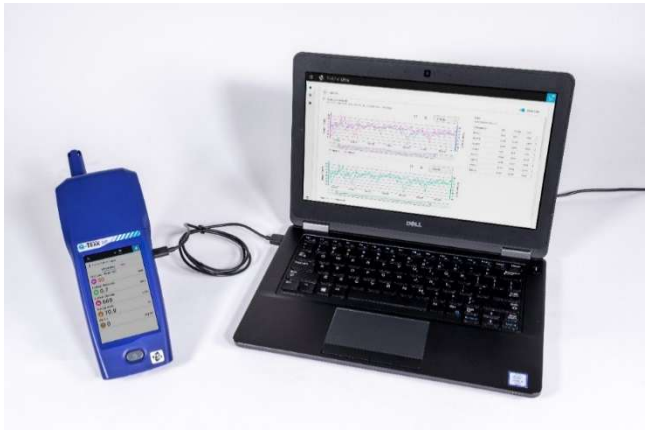
- Dashboard page
  - Displays “Survey” mode
    - Real-time measurements
    - Measurements dependent on sensors installed and whether set to viewable or not

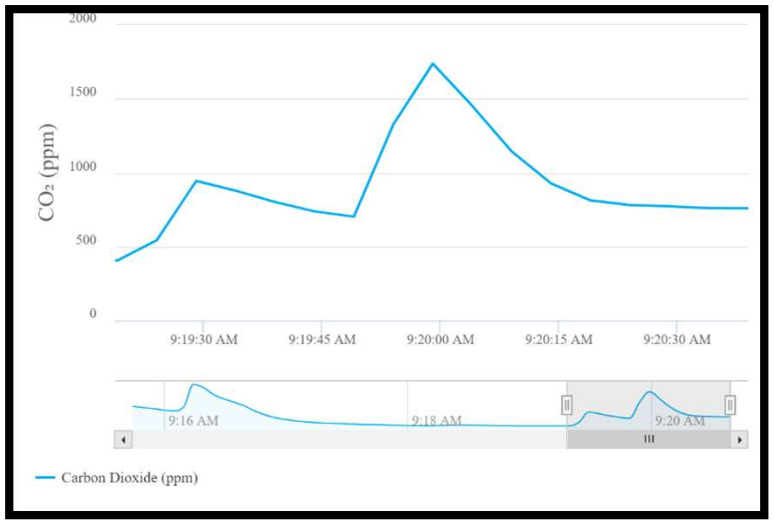


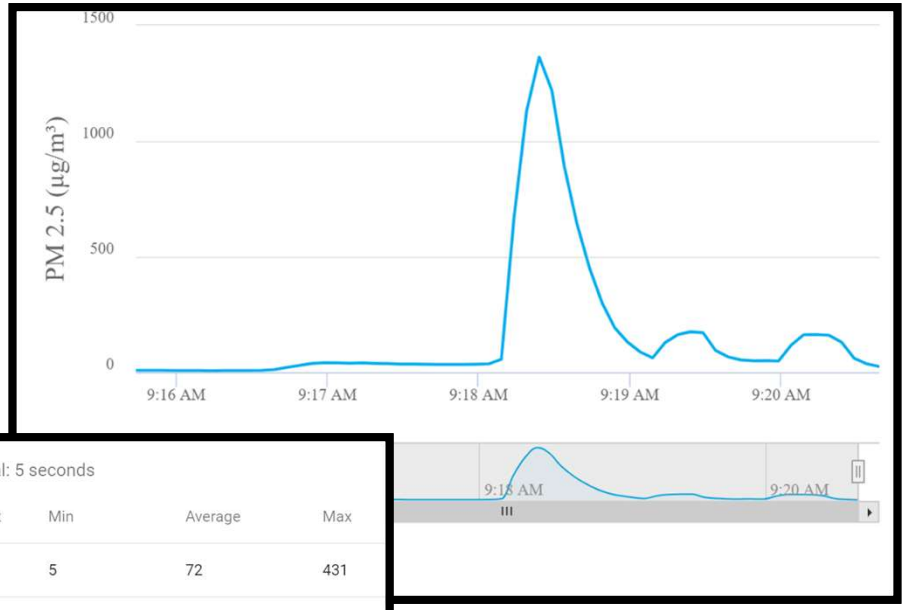
TrakPro™ Ultra - PC Software

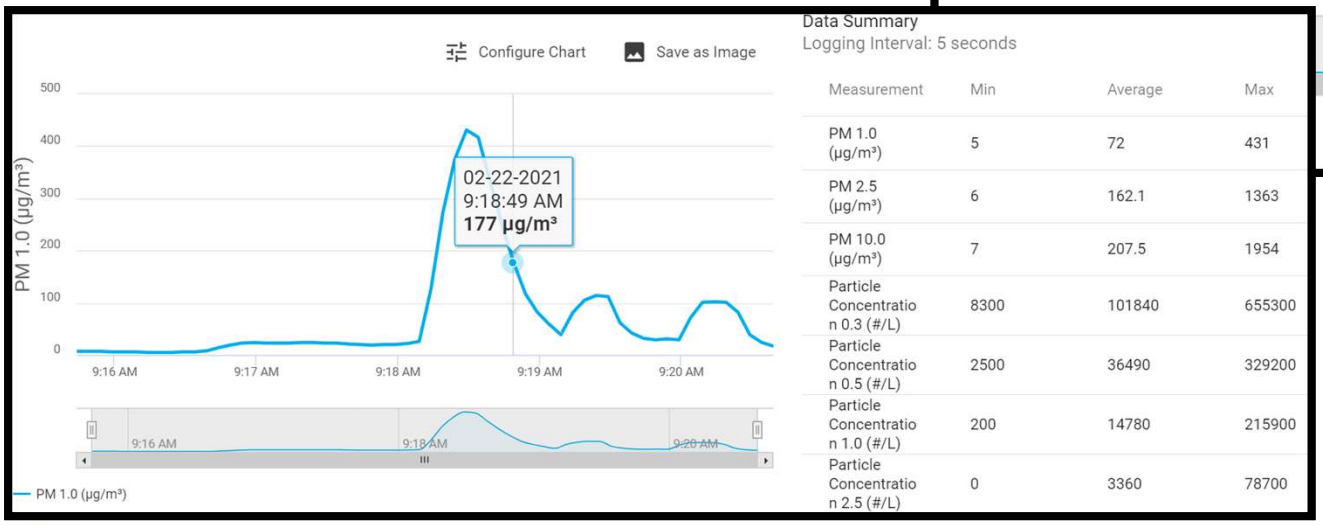
Next Generation of TrakPro™ PC Software

- Specifically for Q-Trak XP
- Download instructions are the manual
- On-line manual in the Help Menu of the SW









Data Summary

Logging Interval: 5 seconds

Measurement	Min	Average	Max
PM 1.0 (µg/m³)	5	72	431
PM 2.5 (µg/m³)	6	162.1	1363
PM 10.0 (µg/m³)	7	207.5	1954
Particle Concentration 0.3 (#/L)	8300	101840	655300
Particle Concentration 0.5 (#/L)	2500	36490	329200
Particle Concentration 1.0 (#/L)	200	14780	215900
Particle Concentration 2.5 (#/L)	0	3360	78700

Factory Service

+ Gas sensors
  - Includes As Found and As Left calibration certificates
  - Each sensor requires its own RMA number
  - Each sensor is priced separately in the RMA service process
+ Multi-Sensor IAQ Module
  - Calibration includes temperature, barometric pressure, relative humidity and PM sensors
  - Includes As Found and As Left calibration certificates
  - Only one RMA number needs to be created for the IAQ module
+ 3 Year Calibration Contracts available

Factory Service

+ Base Unit (7585) comes with Calibration Certs
  - PM
  - Temp, RH, BP sensors)
  - CO_2 Calibration Cert is separate
+ Each gas sensor comes with its own Calibration Certificate
  - Factory calibration dates and user calibration dates are tracked in the instrument
+ Factory calibrated sensors will get a new factory calibration certificate
  - 'As Found' certificates generated with serviced sensors
+ VOC sensors (PID) sensors test and replaced
  - Customers can replace lamps with separate kits

Warranty

+ 7585 Base unit: 2 years
  - Handle and Multi-Sensor IAQ Module
  - Includes PM sensor, plastics, display etc.
+ Sensor warranty varies by the sensor type
+ Product is warrantied for Indoor Use Only and as prescribed in the manual

Limitation of Warranty and Liability (effective February 2016)
(For country-specific terms and conditions outside of the USA, please visit www.tsi.com.)

Seller warrants the goods, excluding software, sold hereunder, under normal use and service as described in the operator's manual, to be free from defects in workmanship and material for **24 months**, or if less, the length of time specified in the operator's manual, from the date of shipment to the customer. This warranty period is inclusive of any statutory warranty. This limited warranty is subject to the following exclusions and exceptions:

a. The following gas sensors are warranted for 12 months from the date of shipment - carbon dioxide, carbon monoxide, chlorine, hydrogen sulfide, nitric oxide, nitrogen dioxide, ozone, and TVOC high and low sensors;

b. The following gas sensors are warranted for 6 months from the date of shipment - ammonia and formaldehyde sensors;

c. Parts repaired or replaced as a result of repair services are warranted to be free from defects in workmanship and material, under normal use, for 90 days from the date of shipment;

d. Seller does not provide any warranty on finished goods manufactured by others or on any fuses, batteries or other consumable materials. Only the original manufacturer's warranty applies;

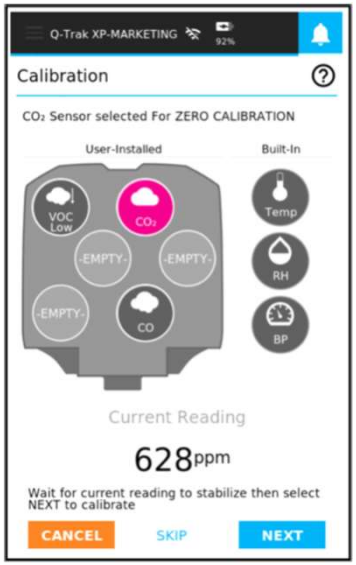
e. This warranty does not cover calibration requirements, and seller warrants only that the instrument or product is properly calibrated at the time of its manufacture. Instruments returned for calibration are not covered by this warranty;

f. This warranty is **VOID** if the instrument is opened by anyone other than a factory authorized service center with the one exception where requirements set forth in the manual allow an operator to replace consumables or perform recommended cleaning;

g. This warranty is **VOID** if the product has been misused, neglected, subjected to accidental or intentional damage, or is not properly installed, maintained, or cleaned according to the requirements of the manual. Unless specifically authorized in a separate writing by Seller, Seller makes no warranty with respect to, and shall have no liability in connection with, goods which are incorporated into other products or equipment, or which are modified by any person other than Seller.

Maintain The Accuracy of Your Studies

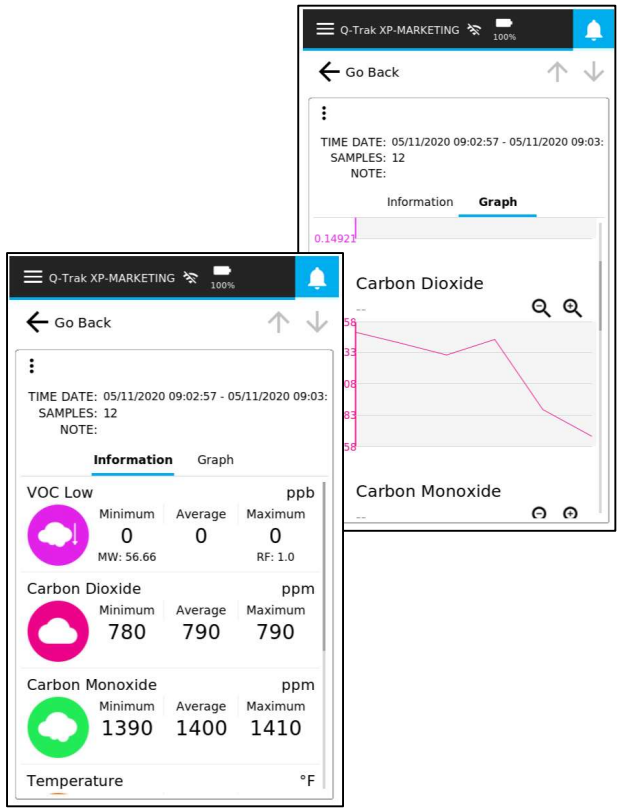
+ Field calibration workflow for each sensor:
  - Gas Sensors
  - Temp
  - RH
  - Barometric pressure



+ Walks you through the calibration process
+ Instrument logs last calibration date

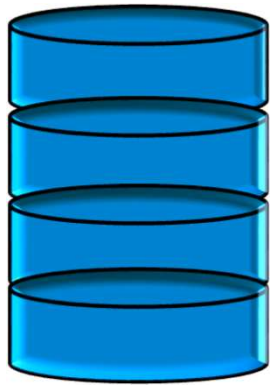
View & Manage Data in Real Time

+ Real-time display of all parameters and live-graphs while logging data
+ Review data and graphs of saved files prior to transferring to PC



Take on Longer IAQ Projects

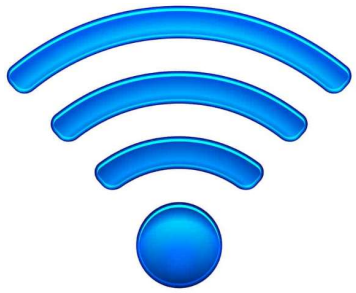
+ Large data storage capacity is enough to hold comprehensive IAQ investigations
+ Memory for 100+ days of storage for data files*
+ Collect multiple data sets without storage worries



* 1 minute sample intervals

Easy Data Transfer

- Connect a USB flash drive to the instrument to export stored data files in .CSV format
- Connect USB cable to instrument and PC to transfer data to TrakPro Ultra software
  - Use TrakPro™ Ultra software platform to review, graph and analyze data for building reports
- Wirelessly connect Q-Trak XP to your PC with optional Wi-Fi module for remote data transfer to TrakPro Ultra software
  - PC and 7585 Q-Trak XP must be on same network
  - Use TrakPro™ Ultra software platform to review, graph and analyze data for building reports



Specifications

Particles

Sensor Type	Optical Particle Counter (OPC)
Particulate Mass (PM)	PM1.0, PM2.5, PM10
Range	0 to 500 µg/m³
Accuracy	±10 µg/m³ (0 - 100 µg/m³), ±10% of reading 100 - 500 µg/m³
PM Resolution	1 µg/m³, 0.001 mg/m³
PM Units	µg/m³, mg/m³

Particle Concentration

(PC sizes in microns (µm))	PC0.3, PC0.5, PC1.0, PC2.5, PC5.0, PC10.0
PC Resolution	0.01/cm³, 1/ft³, 1/L
PC Units	#/cm³, #/ft³, #/L
Response Time	<10 seconds

Carbon Dioxide

Sensor Type	Nondispersive Infrared (NDIR)
Range	0 - 5000 ppm
Accuracy	± 50 ppm
Resolution	1 ppm
Response Time (t90)	< 40s @ 20° C ambient

Temperature

Range	32 - 140°F (0 - 60° C)
Accuracy	± 1.0°F (0.5° C)
Resolution	0.1°F (0.1° C)
Response Time (t90)	< 15 seconds to 90% of final value

Relative Humidity

Sensor Type	Capacitance
Range	0 - 100% RH
Accuracy	± 3% RH
Resolution	0.1 % RH
Response Time (t63)	8 Seconds to 63% of final value

Barometric Pressure

Range	7.7 - 37.2 in Hg (196.0 - 945.0 mm Hg)
Accuracy	±0.12 in Hg (±3.0 mm Hg)
Resolution	0.01 in Hg (0.1 mm Hg)
Response Time (t63)	>2 seconds to 63% of final value

Operating Parameters

Logging Capability	73,000,000 data points
Operating Temperature	41 - 104° F (5 - 40° C)
Storage Temperature	-4 - 140° F (-20 - 60° C)
Meter Dimensions	3.8 in. × 8.3 in. × 2.1 in. (9.7 cm × 21.1 cm × 5.3 cm)
Weight with Batteries	1.2 lbs./0.55 kg
Power Requirements	Li-ion rechargeable battery pack or universal AC adapter - both included
Languages Supported	English, German, French

Carbon Dioxide Sensor (CO_2) - 801399	
Sensor Type	NDIR (Nondispersive Infrared)
Range	0 - 5000 ppm
Accuracy[1]	± 50 ppm
Resolution	1 ppm
Response Time (t90)	< 40s @ 20°C ambient

VOC Sensor (ppb) - 801408	
Sensor Type	PID (Photo Ionization Detector)
Range	0 - 20,000 ppb
Resolution	10 ppb
Response Time (t90)	<3 seconds

Formaldehyde Sensor (H_2CO) - 801409	
Sensor Type	Electrochemical
Range	0-10 ppm
Accuracy	± 1 ppm
Resolution	0.01 ppm
Response Time (t90)	< 90 seconds

Chlorine Sensor (CL_2) - 801400	
Sensor Type	Electrochemical
Range	0-20 ppm
Accuracy	± 0.3 ppm
Resolution	0.01 ppm
Response Time (t90)	< 60 seconds from zero to 10ppm

Nitrogen Dioxide Sensor (NO_2) - 801405	
Sensor Type	Electrochemical
Range	0-20 ppm
Accuracy	± 0.5 ppm
Resolution	0.01 ppm
Response Time (t90)	< 80 seconds from zero to 2ppm

Carbon Monoxide Sensor (CO) - 801401	
Sensor Type	Electrochemical
Range	0-400 ppm
Accuracy	± 2% of reading ± 1 ppm
Resolution	0.1 ppm
Response Time (t90)	< 30 seconds from zero to 10ppm

VOC Sensor (ppm) - 801407	
Sensor Type	PID (Photo Ionization Detector)
Range	0-2000 ppm
Resolution	0.1 ppm
Response Time (t90)	<3 seconds

Ozone Sensor (O^3) - 801406	
Sensor Type	Electrochemical
Range	0-20 ppm
Accuracy	± 0.3 ppm
Resolution	0.01 ppm
Response Time (t90)	< 80 seconds from zero to 1ppm

Ammonia Sensor (NH^3) - 801403	
Sensor Type	Electrochemical
Range	0-100
Accuracy	± 1 ppm
Resolution	0.1 ppm
Response Time (t90)	< 45 seconds

Hydrogen Sulfide Sensor (H_2S) - 801402	
Sensor Type	Electrochemical
Range	0-50 ppm
Accuracy	± 0.5 ppm
Resolution	0.01 ppm
Response Time (t90)	< 60 seconds from zero to 2ppm

Summary

+ The Q-Trak XP IAQ monitor combines Particulate, Multiple Gas and IAQ measurement in a single hand-held instrument
+ Designed for the diverse needs of IAQ professionals
+ Flexibility of user installed gas sensors to help you expand your IAQ measurement capabilities
+ Simplify data collection, review, analysis and graphing of up to 20 simultaneous measurements.
+ Low cost of ownership with field calibrations / replaceable sensors and modular design

Thank You!!!!

Additional Content

+ App notes
+ AQI
+ LEED and WELL
+ Replacement parts and Unpacking
+ Components

Interfering Gases and Cross Sensitivity

Q-TRAK™ XP
INDOOR AIR QUALITY MONITOR
MODEL 7585

INTERFERING GASES AND CROSS SENSITIVITY

APPLICATION NOTE TSI-166 (A4)

Table 1: CO gas sensor cross-sensitivity to the most common interfering gases.

Carbon Monoxide (CO) Gas Sensor – 801401		
Interfering Gas	**PPM applied**	**% Sensitivity**
H_2S	5	<0.1
$H_{2\ @\ 20c}$	100	<50
SO_2	5	<0.1
NO_2	5	<-2
NO	5	<-2
CL_2	5	<0.1
C_2H_4	100	<0.5
NH_3	20	<0.1

[Q-Trak XP IAQ Monitor Model 7585 Interfering Gases and Cross Sensitivity App Note (TSI-166)]

Air Quality Index (AQI) for Outdoor Air

AQI Basics for Ozone and Particle Pollution

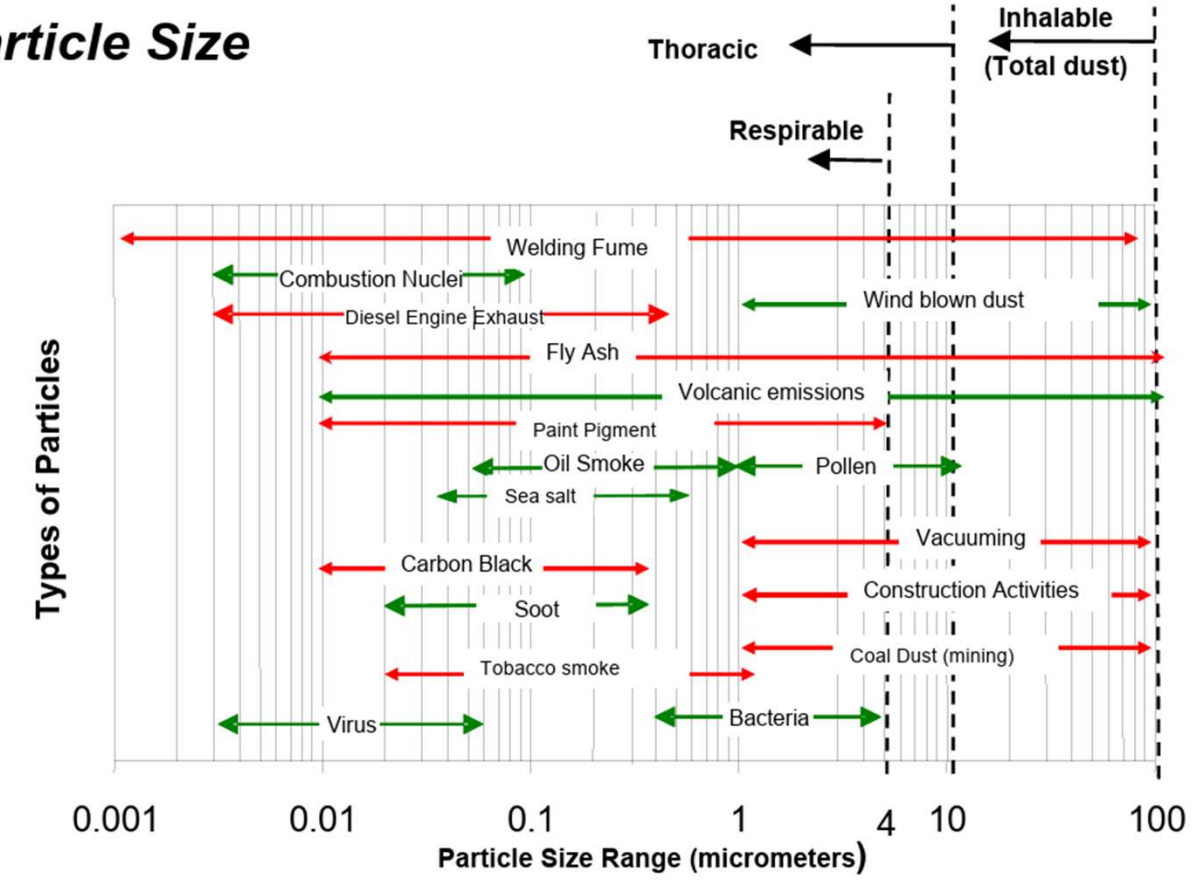
Daily AQI Color	Levels of Concern	Values of Index	Description of Air Quality
Green	Good	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Yellow	Moderate	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Orange	Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Red	Unhealthy	151 to 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Purple	Very Unhealthy	201 to 300	Health alert: The risk of health effects is increased for everyone.
Maroon	Hazardous	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

https://www.airnow.gov/aqi/aqi-basics/

Air Quality Index (AQI) for Outdoor Air

These Breakpoints…							**…equal this AQI**	**…and this category**
O_3 (ppm) 8-hour	O_3 (ppm) 1-hour[1]	$PM_{2.5}$ ($\mu g/m^3$) 24-hour	PM_{10} ($\mu g/m^3$) 24-hour	CO (ppm) 8-hour	SO_2 (ppb) 1-hour	NO_2 (ppb) 1-hour	AQI	
0.000 - 0.054	-	0.0 – 9.0	0 - 54	0.0 - 4.4	0 - 35	0 - 53	0 - 50	Good
0.055 - 0.070	-	9.1 – 35.4	55 - 154	4.5 - 9.4	36 - 75	54 - 100	51 - 100	Moderate
0.071 - 0.085	0.125 - 0.164	35.5 – 55.4	155 - 254	9.5 - 12.4	76 - 185	101 - 360	101 - 150	Unhealthy for Sensitive Groups
0.086 - 0.105	0.165 - 0.204	(55.5 - 125.4)[3]	255 - 354	12.5 - 15.4	[3] 186 - 304	361 - 649	151 - 200	Unhealthy
0.106 - 0.200	0.205 - 0.404	(125.5 - (225.4)[3]	355 - 424	15.5 - 30.4	[3] 305 - 604)	650 - 1249	201 - 300	Very unhealthy
0.201-([2])	0.405+	225.5+	425+	30.5+	[3] 605+	1250+	301+	Hazardous [4]

Particle Size



Environmental / Naturally Occurring Particles

Workplace / man-made Particles

Better Buildings

+ LEED and WELL

- New construction and renovations
- One time assessments, and continuous monitoring
- PM2.5, PM10, Formaldehyde, VOC, CO, Ozone (O3), Radon, NO2, CO2
- Solutions include temporary and continuous monitors, onsite sensors and sampling for lab evaluation

Replacement Parts

+ 7580 - Base Unit Only

+ 800120 - Gas sensor calibration Cap

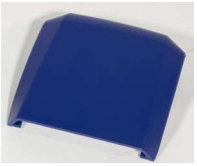
+ 800121 - Carrying case, Q-Trak XP

+ 800122 - Power supply

+ 800123 - Battery pack

+ 800126 - Battery cover

+ 800127 - Module cover



+ 804001 - USB cable (USB-A to USB-C)

Unpacking

- Carefully unpack the instrument and accessories from the shipping container
- Check the individual parts against the list of components found in the owners manual

Installing the Battery

1. Remove the battery compartment cover

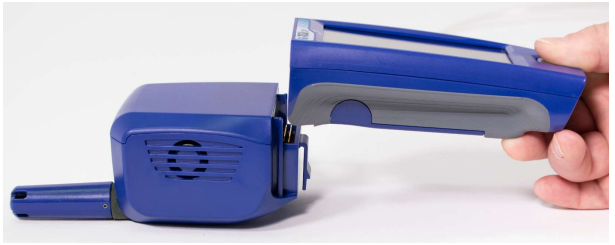
2. Connect the battery to the handle connector
   - The battery pack has a keyed connector to prevent improper connection

3. Insert the battery while keeping the battery wires to the side and clear of the battery cover screw

Connecting & Disconnecting the IAQ Module (801430) From the 7580

+ Make sure the instrument is off

1. Turn the instrument over and press upward on the release tab
2. Press downward with both thumbs while holding the release tab
3. Separation complete



Installing the Wi-Fi Dongle

- Install the dongle into the USB port located inside the battery compartment
  - *PC and 7585 Q-Trak XP must be on same network*