



## **List of Tutorial Videos on the Operation and Maintenance of Ambient Air Monitoring Equipment**

### **RM Young Training**

<https://www.youtube.com/watch?v=oqrvzPMIUj8>

#### **Learning Objectives:**

- 1) Understand the mechanics on how the RM Young Wind Monitor measures wind speed and wind direction
- 2) Be able to install and perform routine maintenance on an RM Young Wind Monitor. Includes how to tilt-over a meteorological tower
- 3) How to wire a RM Young Wind Monitor into a Campbell Scientific CR1000 datalogger.

### **R.M. Young Wind Monitor Bearing Replacement**

<https://www.youtube.com/watch?v=a7PPHedn-AU>

#### **Learning Objectives:**

- 1) An instructional video produced by the manufacturer, the R. M. Young Company, to assist customers in the process of replacing bearings on the R.M. Wind Monitor.
- 2) Additional instructional video: [https://www.youtube.com/watch?v=O\\_leZ1Wtnfk](https://www.youtube.com/watch?v=O_leZ1Wtnfk)

### **R.M. Young Wind Monitor Direction Calibration**

<https://www.youtube.com/watch?v=3VKFGUAXOF0>

#### **Learning Objectives:**

- 1) An instructional video produced by the manufacturer, the R.M. Young Company, to assist customers in the process of calibrating an R. M. Young Wind Monitor for wind direction. One of two available calibration fixtures is required: Either a bench stand unit or a pole-mounted unit that may be used in the field.

### **R.M. Young Wind Monitor Speed Calibration Check Procedures**

<https://www.youtube.com/watch?v=RkEsiANII8U>

#### **Learning Objectives:**

- 1) An instructional video produced by the manufacturer, the R. M. Young Company, to assist customers with the process for checking the wind speed calibration of an R. M. Young Wind Monitor.

## How to Use a Compass

<https://www.youtube.com/watch?v=0cF0ovA3FtY>

### Learning Objectives:

- 1) Be able to set magnetic declination and sight a bearing direction.

## CR300 Datalogger QuickStart

<https://www.campbellsci.com/videos/cr300-datalogger-quickstart-part-1>

### Learning Objectives:

- 2) Be able to install required driver, connect the CR300 to a computer, generate a program for datalogger to read a meteorological sensor and record measurements, wire your sensor to datalogger, send program you just generated to datalogger, view real-time measurement values, collect and view data.

## CR1000x Datalogger QuickStart

<https://www.campbellsci.com/start/cr1000x#slide=115>

### Learning Objectives:

- 1) Be able to install required driver, connect the CR300 to a computer, generate a program for datalogger to read a meteorological sensor and record measurements, wire your sensor to datalogger, send program you just generated to datalogger, view real-time measurement values, collect and view data.

## Datalogger Collection

<https://www.campbellsci.com/videos/collect-data-tutorial#slide=40>

### Learning Objectives:

- 1) One of the goals of datalogging is to copy the data from the datalogger memory to a computer so that it can be analyzed further. You will be able to understand how to collect data using the following:
  - a. Automatic or Scheduled Collection: LoggerNet can be setup on an automatic data collection schedule. Use the Status Monitor to quickly see the status of data collection throughout your network.
  - b. Manual - Collect Now: LoggerNet, PC400, PC200W and LoggerLink are used to retrieve the data from the datalogger on demand or manually.
  - c. Manual - Custom Collect: LoggerNet can also do specialty or custom data collection.
  - d. Manual - Physical Collection: External data storage devices can be used for convenient data retrieval from the field. These devices use a variety of technologies, including USB, CompactFlash, and microSD.

### **EZSetup Ethernet Connection**

<https://www.campbellsci.com/videos/ezsetup-ethernet-connection>

#### **Learning Objectives:**

- 1) Be able to use the EZSetup wizard to set up IP communication between the computer and datalogger.

### **CR310 Datalogger Ethernet Communication Setup**

<https://www.campbellsci.com/videos/cr310-ethernet-quickstart#slide=62>

#### **Learning Objectives:**

- 1) This tutorial will take you through the steps to set up an Ethernet connection between a CR310 and computer.
  - a. If you're just unpacking your CR310, start with the Let's Go! Tutorial at: <https://www.campbellsci.com/videos/cr300-and-cr310-getting-started-tutorial#slide=35>

### **API Teledyne T640 Particulate Matter Mass Monitor Rooftop Installation**

<https://www.youtube.com/watch?v=8H5NmNgBg1M>

#### **Learning Objectives:**

- 1) This tutorial will take you through the tools needed and steps on how to install an API T640 PM monitor and extension tube onto a rooftop.

### **T640 Optical Chamber Cleaning Procedure**

<https://www.youtube.com/watch?v=qAtlBgTxOds>

#### **Learning Objectives:**

- 1) Learn step by step procedures on how to clean the optical chamber in the T640 PM mass monitor.

### **API Teledyne T640 Particulate Matter Mass Monitor PMT Check**

<https://www.youtube.com/watch?v=pZYnXwYwtls>

#### **Learning Objectives:**

- 1) This tutorial will take you through the steps on how to perform a PMT check or adjust on the API T640 PM monitor.

### **Updating the Firmware in a T-Series Instrument with NumaView™ Software**

[https://www.youtube.com/watch?v=M1ITIOuPG\\_M](https://www.youtube.com/watch?v=M1ITIOuPG_M)

#### **Learning Objectives:**

- 1) This tutorial demonstrates how to update the firmware in your T Series instrument with NumaView™ Software.

### **How to Certify the Photometer in a Teledyne API T700U using a T703U Ozone Transfer Standard**

#### **Learning Objectives:**

- 1) How to certify the photometer in a Teledyne API T700 or T700U using a TAPI T703 or T703U as an ozone transfer standard.

### **How to Purge a Cylinder Gas Regulator**

<https://www.youtube.com/watch?v=rSU6jcdPMr4>

#### **Learning Objectives:**

- 1) Learn how to properly purge and clean your regulators for ambient air monitoring.

### **Reaction Chamber Cleaning Teledyne API T200 NOx Analyzer**

<https://www.youtube.com/watch?v=YT7b13tr3TU>

#### **Learning Objectives:**

- 1) Learn how to clean the reaction chamber and sample/ozone orifices on an API Teledyne T200 series Teledyne API Chemiluminescence analyzer.

### **Teledyne API T750 Mass Flow Controller Calibration with NumaView**

<https://www.youtube.com/watch?v=AmvayMkJ0NY>

#### **Learning Objectives:**

This is an instructional video showing how to calibrate the mass flow controllers (MFCs) in a Teledyne API T750U running NumaView Software. The instructions also apply to the T700, T700U and T750 models running NumaView Software.

### **T100 UV Lamp Adjustment Procedure**

<https://www.youtube.com/watch?v=PF6MGK1FftQ>

#### **Learning Objectives:**

- 1) Learn step by step procedures on how to adjust the UV lamp in an API Teledyne T-Series SO2 analyzer with NumaView™ Software to ensure your instrument operates at peak performance.

### **T703/T703U Leak Check**

<https://www.youtube.com/watch?v=wMLtaexvju0>

#### **Learning Objectives:**

- 1) Learn how to perform a leak check on your Teledyne API T703/T703U Photometric Ozone Calibrator during initial startup, following any maintenance, or during annual preventative maintenance.

## **Teledyne API Analyzer Sample Rebuild Process for PU-96**

<https://www.youtube.com/watch?v=MHNyDK1Pnmc>

### **Learning Objectives:**

- 1) Sample pump rebuild instructions.

## **Backpressure Compensation Calibration**

<https://www.youtube.com/watch?v=SyB0aKtrvYo>

### **Learning Objectives:**

- 1) Learn how to perform a back pressure compensation calibration on a Teledyne API T700 Calibrator.

## **Critical Flow Orifice**

<https://www.youtube.com/watch?v=5d4Gm1OGbK8>

### **Learning Objectives:**

- 1) Learn how to rebuild a critical flow orifice for API Teledyne T-series analyzers.

## **PM10 Inlet Head Cleaning Instructions**

<https://www.youtube.com/watch?v=iTkeQcYPgDg>

### **Learning Objectives:**

- 1) Learn step-by-step how to clean a PM10 inlet head.

## **BAM 1020 Recommended Monthly Maintenance**

<https://www.youtube.com/watch?v=vmdAiJJRS4Y>

### **Learning Objectives:**

- 1) As found leak check
- 2) Settings verification
- 3) Nozzle/vane/pinch rollers cleaning
- 4) Nozzle/shuttle check
- 5) As left leak check

Note that not all air monitoring sites are equal. Some sites may require more frequent maintenance depending on local conditions. 2018/02/03 - Remember to update your operator's manual to revision U 2018/02/03 - Current main firmware is 3236-05 V3.12.1  
2020/01/10 - Remember to update your operator's manual to revision W 2020/01/10 - Current main firmware is 3236-05 V3.14.3

## **BAM 1020 Monitor Setup and Basic Maintenance**

<https://www.youtube.com/watch?v=w11vV8-SMK4>

### Learning Objectives

- 1) Learn how to setup and maintain a BAM 1020 Mass Particulate Monitor

### Push-to-Connect Fittings Explained

<https://www.youtube.com/watch?v=qtWLFKpltz8>

### Learning Objectives:

- 1) Learn how push-to-connect fittings work and how to insert and remove tubing from these fittings.

### How to Setup a Met One Instruments, Inc. ES-405, Portable Particulate Monitor

[https://www.youtube.com/watch?v=O9R\\_0RuafEQ](https://www.youtube.com/watch?v=O9R_0RuafEQ)

### Learning Objectives:

- 1) Learn how to setup a tri-pod Met One Instruments, ES-405 Portable Particulate Monitor for fast deployment (PM1, PM2.5, PM4, PM10, Real-time)

### How to Setup a Met One Instruments, Inc. E-SEQ-FRM, Particulate Monitor

<https://www.youtube.com/watch?v=vGtAgdkvm3k>

### Learning Objectives:

- 1) Learn how to setup a Met One Instruments, E-SEQ-FRM, Sequential Reference Particulate Sampler (Filter-Based sampler for PM10, PM10-2.5, PM2.5)

### Met One Instruments, Inc. BAM-1020 EPA TSA Training Video

<https://www.youtube.com/watch?v=4JLlvE4ccss>

### Learning Objectives:

- 1) Basic overview of the BAM-1020, flow system, measurement system, data system and maintenance.
- 2) Overview of the EPA Technical System Audit Training (Checklist) for the BAM-1020 monitor.

### How to Download Data from TSI Instruments Using Standard TrakPro Software

<https://www.youtube.com/watch?v=SZdZZieaspk>

### Learning Objectives:

- 1) Learn how to use TSI TrakPro (standard version) to download data from TSI DustTrak 8530, DustTrak DRX 8533, DustTrak DRX 8534, DustTrak Handheld, VelociCalc, Q-Trak, P-Trak, and AM 510.

### **Calibration and Operation of High Volume Mass Flow Controlled Ambient Particulate Sampler**

<https://www.youtube.com/watch?v=QPuuOPdJ77s>

[https://www.youtube.com/watch?v=nqyT\\_FG\\_GNs](https://www.youtube.com/watch?v=nqyT_FG_GNs)

<https://www.youtube.com/watch?v=YSujms6VSiY>

<https://www.youtube.com/watch?v=nZJMqX3kBEw>

#### **Learning Objectives:**

- 1) Learn how to calibrate and operate a Tisch Environmental Mass Flow Controlled High Volume Ambient Particulate Sampler.
- 2) Calibration Worksheets can be found at <https://tisch-env.com/calibration-worksheets/>

Phone: 1-877-263-7610

Fax: 513-467-9009

Email: [Sales@tisch-env.com](mailto:Sales@tisch-env.com)

Web: <http://www.tisch-env.com>

### **Converting High-Volume PM10 to PM2.5**

<https://www.youtube.com/watch?v=2ngM7qDmDAc>

#### **Learning Objectives:**

- 1) Learn how to convert a Tisch Environmental High Volume PM10 Air Sampler to PM2.5.

### **Agilaire AirVision and 8832/8872 Data logger Training Videos**

<https://agilaire.com/video-training-resources/>

#### **Learning Objectives:**

- 1) Learn basic AirVision database data editor features such as: parameter (multi-parameter) charting, side-by-side data comparison, set annotation to data, batch editing, set AQS null coding, set AQS qualifier coding, child/parent relationship between parameters, and exporting reports (to pdf, excel, csv, html, text files).
- 2) Learn basic AirVision database report features such as calibration reports, daily summary reports, monthly reports, task report scheduling and basic security configurations/permissions.
- 3) Learn how to setup GSI and Modbus channels in Airvision and how to use the import tool, setup instrument polling, create e-mail alarms, and how to backup and restore database.
- 4) Learn 8832/8872 basic functions and features.

## **How an Ozone Analyzer Works**

<https://youtu.be/VXghNaf672E>

Learning Objectives:

1) How photometric works