

# Vista® Supplemental Manual for EasyMatch® QC



**Hunter Associates Laboratory**  
11491 Sunset Hills Road  
Reston, Virginia 20190 USA  
[www.hunterlab.com](http://www.hunterlab.com)

**A60-1017-657**  
**Manual Version 1.0**

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Caution: If the equipment is used in a manner not specified by the HunterLab, the overall safety may be impaired. - The instrument is for indoor use only and not suitable for a wet location.



Caution: There is a potential of a UV Light hazard in using this instrument. Please avoid looking directly at the light.

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## HunterLab Vista Features

The Vista is a transmittance-only spectrophotometer with a wavelength range from 400 to 700 nanometers (nm). The instrument can simultaneously measure transmittance color and haze of liquids and non-opaque films.

The on-board software (EasyMatch Essentials) is preloaded with most scales and indices, including Pt-Co/Hazen/APHA, Gardner Color, 3 Pharmacopoeia Standards, and more. The touch screen display is customizable with multiple data views including color data, color view, spectral data, spectral plot and trends and standardization is done with one press of the screen. The footprint is compact and data output can be made to a USB or through the Ethernet port.



Figure 1. Front of Vista

The Vista possesses the following features:

- Simultaneously measures the transmission color and haze of liquids and non-opaque films
- One-touch standardization
- 400-700nm visible range spectrophotometer
- Touchscreen display with customizable workspaces
- EasyMatch Essentials color measurement software
- Preloaded with most scales and indices, including: Pt-Co/Hazen/APHA, Gardner Color, three Pharmacopoeia Standards- US, EU, and Japanese, Haze %, Opalescence, Y Total Transmission, CIE Spectral Data, and more.
- Multiple data views – color data, color view, spectral data, spectral plot, among others
- Small compact footprint
- Digital haze meter

*Note: Use of this equipment in a manner not specified by the manufacturer may impair the protection afforded by the equipment. Danger of electric shock if liquids are spilled and fire if volatile or flammable liquids are spilled. Use care when measuring liquid samples.*

## **Transmittance Compartment**

The transmission compartment located in the middle of the sensor is used for measuring the transmitted color of transparent solids or liquids. The transmission compartment door can be closed or open while standardizing and taking measurements.

## **Automated Haze Measurement**

The Vista can perform haze measurements automatically using the haze mechanism inside of the instrument. To accomplish HAZE, first standardize on TTRAN (Total Transmittance) and Haze. Then select Haze under indices. For more information, see Standardization for Haze Measurements.

## **Vista Accessories**

The following accessories are provided with the Vista system and can be found in the standards case:

- Didymium filter
- Haze Standard
- Cleaning cloth
- Stylus
- USB Flash Drive

## **Vista Options and Sample Devices**

There are many options and devices available for positioning samples at the measurement ports of the Vista and for making the instrument easier to use. For the latest information, please refer to <https://support.hunterlab.com/hc/en-us/articles/218375923-Accessories-for-HunterLab-Instruments>.

## Vista Installation

*Note: The Vista should be lifted from under the base plate, near the center of the unit. It should not be carried by grasping any part of the plastic housing.*

The Vista is simple to set up and attach to your computer. The following instructions guide you through the initial installation of your Vista system.

1. Unpack all cartons and remove wrappings and cable ties. Inspect for damage and notify the carrier and HunterLab immediately if any is discovered. Save the packing material in case it becomes necessary to return the instrument to the factory.
2. Place the Vista on a flat working surface where the measurements will be made. Place the computer near the sensor.
3. Ensure that the on/off switch on the back of the sensor is set to off.
4. Connect the power cord to the sensor and plug it into a power outlet.

*Note: Refer to the Vista Specifications section of this chapter for recommendations concerning the power line and its conditioning.*

*CAUTION: Use only the power cord included with this instrument or a replacement obtained from HunterLab. Be certain that the power cord is in good condition before connecting it. The Vista is grounded using the grounding portion of this power cord. Only plug this cord into a properly grounded power outlet. Do not use an inappropriate adapter to plug the instrument into an ungrounded outlet or electric shock may occur. More information on the wiring of the power cord can be found in the Vista Specifications section of this chapter.*

*Note. Since the Vista uses a USB cable to communicate with the computer, select the highest number COM Port No. offered.*

### Install EasyMatch QC Software

Complete the following steps:

1. Log into the system using an account that has 'Administrator' privileges for the PC — network or local.
2. Insert the installation CD into the CD-ROM drive. If the system is setup to automatically run CD programs, the menu will appear and you may skip to Step 5. Otherwise, continue with Step 3.
3. Select the Easy Match QC Icon or from Windows, go to **Start > Run >EZMQC\_Menu** and **Open**. The following screen will be shown.

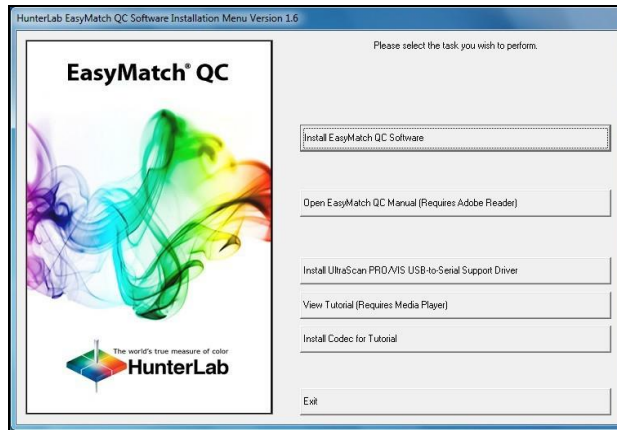


Figure 2. EasyMatch QC Installation

4. Select '**Install EasyMatch QC Software**' and follow the screen prompts.
5. Select '**SoftKey License**' as the type of key to use with the software.

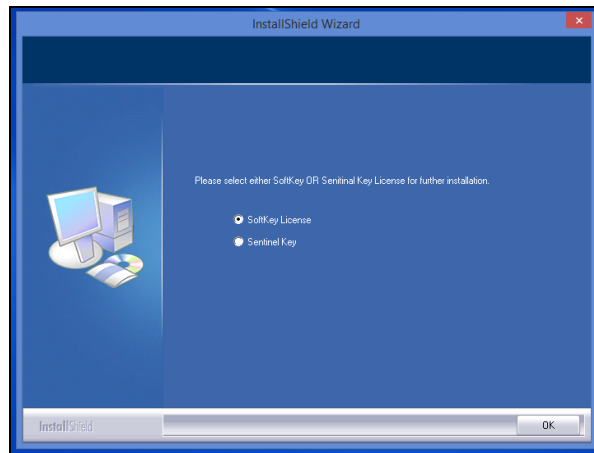


Figure 3. Software Key License

6. When the EasyMatch QC installation is finished, select the **Option Button** next to '**Yes, I want to restart my computer now**' and then **Finish** to restart the computer and log back in.

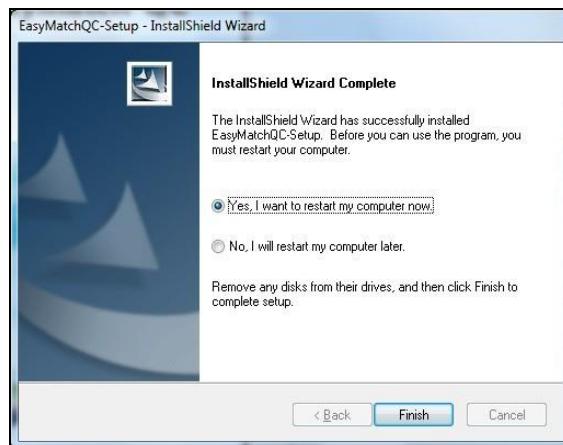


Figure 4. Completed Install

7. The CD can now be removed.



## Activate the SoftKey License

1. From the Desktop, select the EasyMatch QC Icon or from the Windows Start menu, choose the following to open the software:

**Start > Programs > HunterLab > EasyMatch QC**

2. A warning message to activate the license will be displayed as shown in Figure 5.

**Note:** *EasyMatch QC functions are unavailable before key activation.*

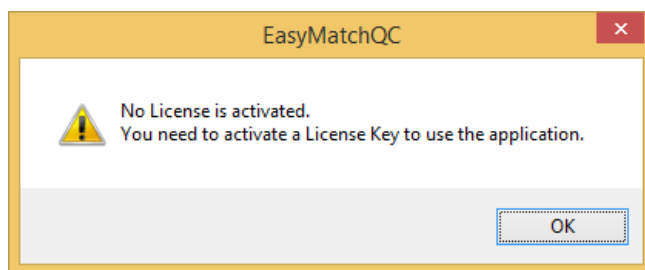


Figure 5. No License Warning

3. The SoftKey License is uniquely associated with the sensor serial number and is provided on a thumb drive supplied with EasyMatch QC or via email from HunterLab.
4. Go to **Help > License Registration > Activation**.
5. Select **Activate License**.

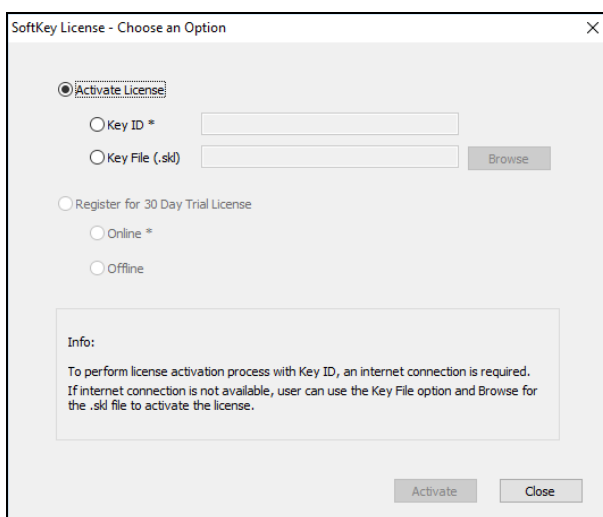


Figure 6. Activate License

### *i.* **Option #1: Key ID.**

This method is for copying the ID from an email or writing down the 32-digit code. This requires an internet connection.

- a. From the **Choose an Option** page (Figure 5), select **Key ID**.
- b. Paste-in or type-in the License Key ID and click **Activate**.
- c. An acknowledgement will be displayed showing the activation status.

**ii. Option #2: Key File (.skl)**

This method is for using the SoftKey License (.skl file) on the thumb drive.

- a. Place the thumb drive with the SoftKey License in the USB port.
- b. From the **Choose an Option** page (Figure 5), select **Key File (.skl)**.
- c. Browse the USB to find the SoftKey License (.skl) file, then click **Activate**.
- d. An acknowledgement will be displayed showing the activation status.

**iii. Option #3: Sentinel Key**

- a. If the user has a HunterLab USB hardware key, then it can be used with a new sensor on the same computer. Return to Install the Software, Step 5 (Figure 3) and select the Sentinel Key to continue.

**iv. Option #4: 30-day trial**

- a. Fill out the registration form provided for the 30-day trial. Connect to the internet. HunterLab will approve the trial and email the SoftKey license back. Follow the directions for Option #1 or #2 to complete.

The screenshot shows a window titled "License Registration (Online)" with a close button (X) in the top right corner. The form contains the following fields:

- Customer: [Text Input]
- Company \*: [Text Input]
- Address: [Text Input]
- City: [Text Input] State: [Text Input]
- Country \*: [Text Input] Zip: [Text Input]
- E-mail ID \*: [Text Input]
- Mobile: [Text Input] Phone: [Text Input]

At the bottom right of the form, there are two buttons: "Register" and "Close".

Figure 7. Request 30-day Trial

## Connecting Vista to EasyMatch QC and a Computer

EasyMatch QC and EasyMatch QC-ER Version 4.88 and above can connect with Vista. There are three methods to connect the Vista to EasyMatch QC.

1. Through a Network
2. Direct Connection using an Ethernet Cable
3. Through a Wireless Access Point

**Note that instruments built before VTS00135 may need additional hardware or Essentials update (1.00.14 and above).**

**Connect Vista to a Network through an Ethernet port.**

1. Connect both the Vista and the computer with EasyMatch QC to Ethernet ports through the same Ethernet network.

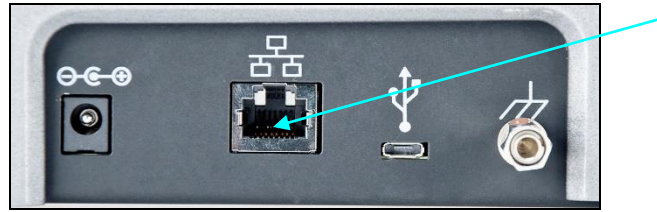


Figure 8. Ethernet Port

2. Open EasyMatch QC in the computer.
3. From the **Sensor Menu**, select **Add Sensor**.

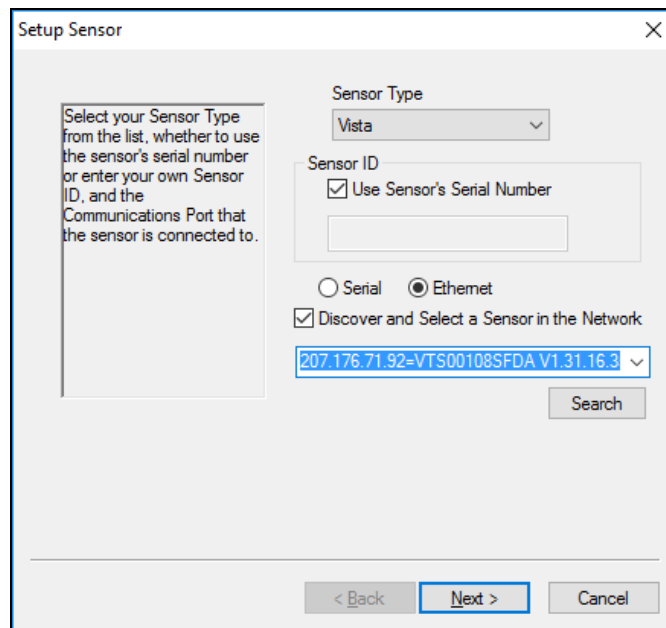


Figure 9. Sensor Setup

4. Select **Vista** as the Sensor Type, **Ethernet** and check the box to **Discover and select a Sensor in the Network**. Press **Search** to automatically find the Vista.
5. A drop-down list of available sensors will be shown with the IP address and sensor name. Select the sensor. If the software returns with '????' it means that the Vista is not free to connect to EasyMatch QC. If this happens, restart Vista and search again.
6. Select **Next** to standardize.

**Directly Connect Vista and PC with an Ethernet Cable**

1. Connect the Ethernet cable and then restart Vista and the computer.
2. Open Command Prompt in the computer.
3. Type in **ipconfig**. Under the Ethernet adapter information, review the autoconfiguration IPv4 Address and Subnet Mask.

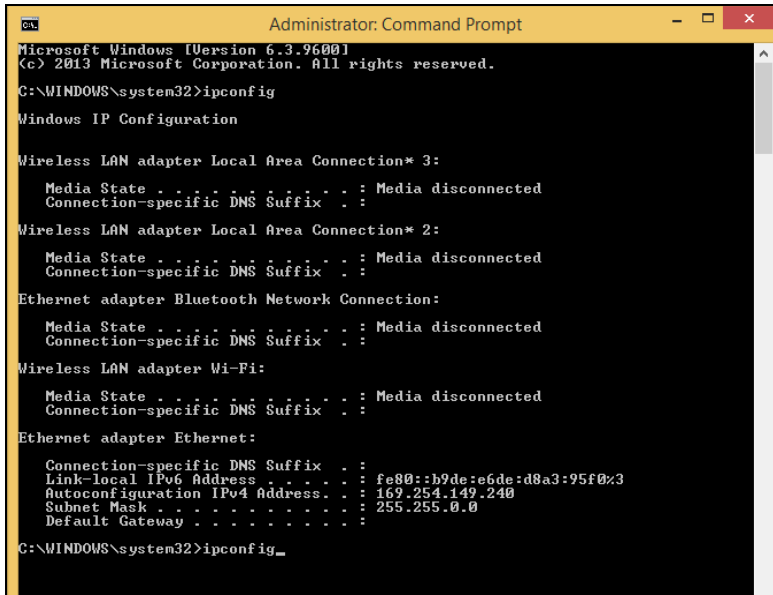


Figure 10. Configuration for EasyMatch QC

4. Open Vista Essentials, go to **Preferences > Configure Network Settings**. Uncheck **'Use DHCP for Ethernet Config'**. Type in the **IP address** and **Subnet Mask** manually, then press **'Apply'**. The IP address here should be exact same as the **'autoconfiguration IPv4 Address'** in the PC, except changing the last two digits.
5. **Restart** Vista to apply the network settings.

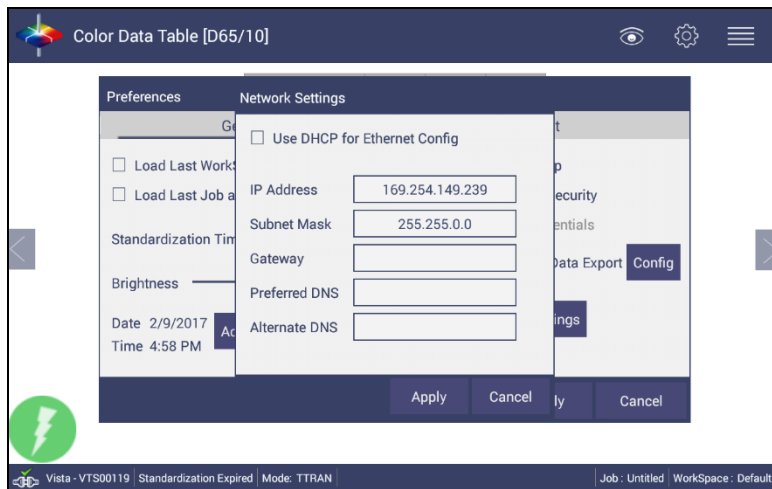


Figure 11. Configure IP Address & Subnet in Essentials

- Open EasyMatch QC and from the Sensor menu, click **Add Sensor** and select **Vista**. Select **Ethernet** and uncheck the box to '**Discover and Select a Sensor in the Network**'. Then type in the IP address which has been set up in Vista Essentials.

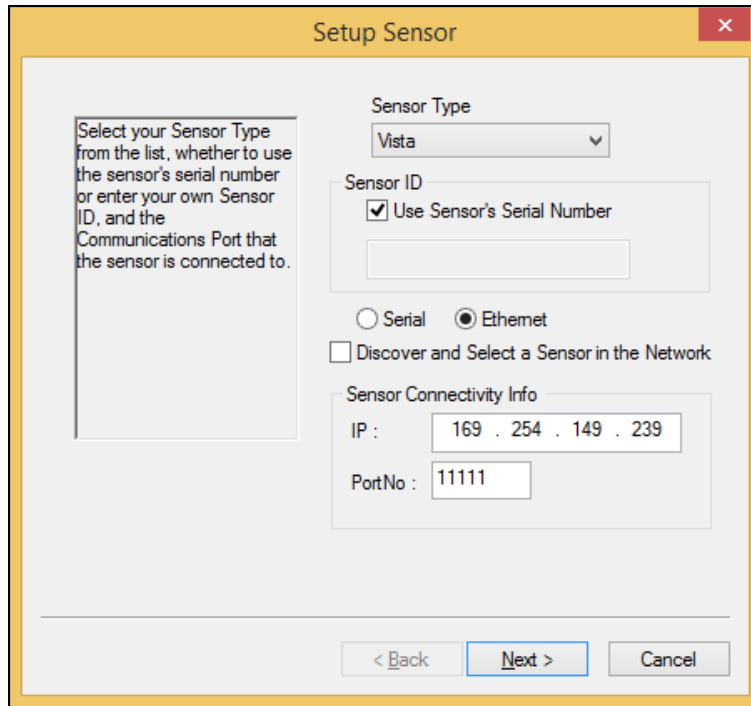


Figure 12. Setup Sensor in EasyMatch QC

- You are now ready to use EasyMatch QC with the Vista.

### **Connect Vista to a Computer through a Wireless Access Point**

- About the connection and setup, please find the detail in this link, <https://support.hunterlab.com/hc/en-us/articles/217231926-Connect-VISTA-through-Wireless-Access-Point-to-a-Computer-for-EZMQC-and-CalVer->
- In **Sensor**, click '**Add Sensor**' and select '**Vista**'. Select '**Ethernet**' and check the box '**Discover and Select a Sensor in the Network**' and then click '**Search**'. There will be a drop-down list of all available Vista sensors. If the sensor in the list includes an IP address as well as the sensor name, then it is connectable. If the software returns with '??????' instead of the sensor name, it means that the Vista is not free to connect. If you meet this problem, restart the Vista and click **Search** again.
- Click **Next** to standardize.

## Add the Sensor

1. Upon initial startup, the following message will be displayed: **'Sensor not yet installed. Please install a sensor to take measurements'**. This message will remain until you proceed to the Install/ Configure command in the Sensor menu and install a new sensor.
2. The Sensor Manager appears first:

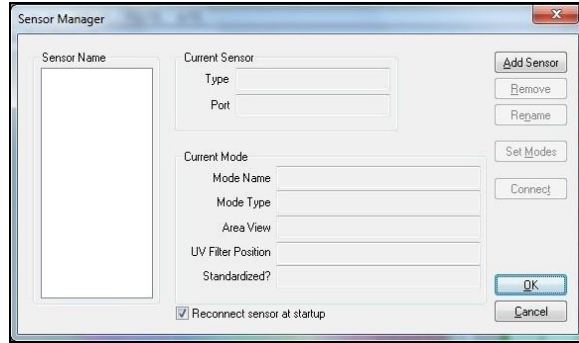


Figure 13. Sensor Manager

3. Select **Add Sensor** to install a new sensor. The Setup Sensor screen allows selection of the instrument model and the communications port. Select **Next** when ready.

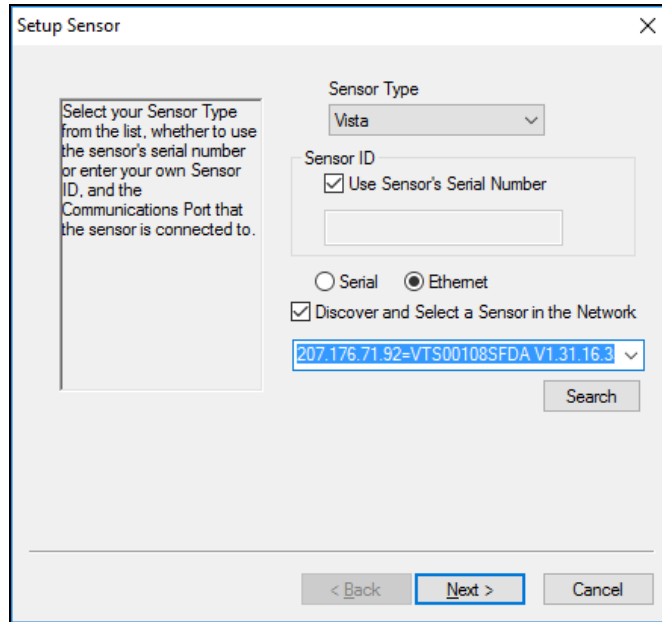


Figure 14. Setup Sensor

4. Next, configure a **Standardization Mode** for the sensor. The Vista will support TTRAN and RTRAN.

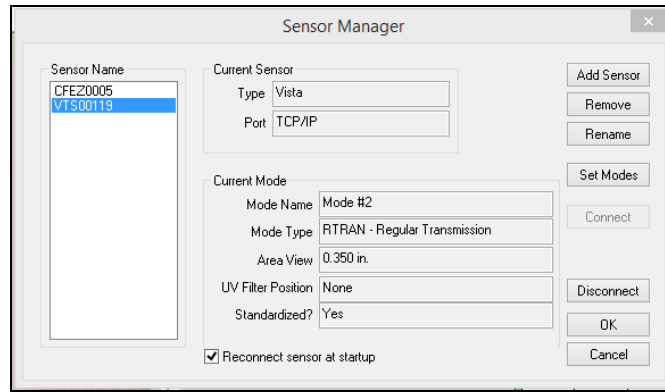


Figure 15. Setup Mode

5. Select the option next to **Standardize Now** to proceed immediately to standardization upon completion of sensor configuration. Select **Next** to complete the installation.

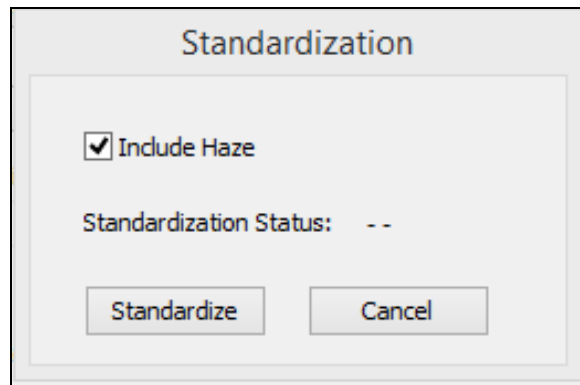


Figure 16. Standardization Menu





## Vista Standardization

The Vista must be standardized on a regular basis to keep it operating properly. Standardization sets the top and bottom of the photometric scale. During standardization, the bottom of the scale is set first but is automatically read on the Vista. The top-of-scale is set using a blank cell or empty transmittance compartment.

It is recommended that the instrument perform standardization at least once every eight hours.

### Standardization Modes

Two transmittance modes of measurement available with the Vista:

TTRAN: Total Transmittance – sample against the sphere opening

RTRAN: Regular Transmittance – sample close to the lens

The instrument can be standardized at any time by selecting **Sensor Menu >** or by clicking the **Standardize** button on the default toolbar. You are first prompted to indicate the instrument configuration.

When the instrument is to be used for transmission measurements of liquids, a clear liquid (distilled water for water-based samples, toluene or benzene for resins, or mineral oil for oils) in a cell of the desired size should be used to set the top of the scale.

Place the cell in the transmission compartment against the **sphere** for measuring total transmittance. Place it as close to the **lens** as possible when measuring regular transmittance.

*Note: Closing the transmission compartment door while making transmittance measurements is a best practice for this instrument. However, it is not necessary to eliminate ambient room light with the Vista.*

### Standardization for Haze Measurements

A transmission haze measurement is a ratio of the diffuse light to the total light transmitted by a specimen. Useful measurements of haze can be made on the HunterLab Vista instrument listed above, although the results do not conform exactly to ASTM method D1003 because of differences in instrument geometry. Haze is calculated as follows:

$$\text{Haze} = \frac{Y_{\text{Diffuse Transmission}}}{Y_{\text{Total Transmission}}} \times 100$$

Haze measurements can be made only in a transmission mode on a benchtop sphere instrument (UltraScan PRO, UltraScan VIS or Vista).

In order to measure and display haze values, follow the steps outlined below:

1. Select **Options > Read Method**.
2. Select **Haze** from the dialog box that appears. The screen changes to allow additional options.

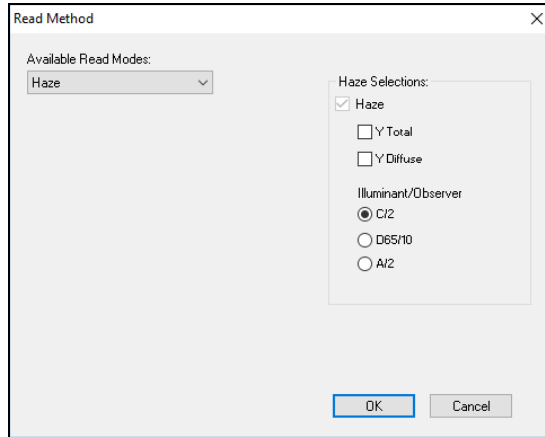


Figure 17. Read method: Haze

3. Haze is automatically selected for display in your Color Data Table. Check the boxes next to Y Total and/or Y Diffuse to also show these components of the haze calculation. Click the radio button next to the illuminant/observer combination you wish to use. Then click **OK**.
4. Standardize the instrument in TTRAN mode. Go to **Sensor > Set Modes** and select **TTRAN**. Next, select **Haze** using the check box. Then press **Standardize** to initiate.

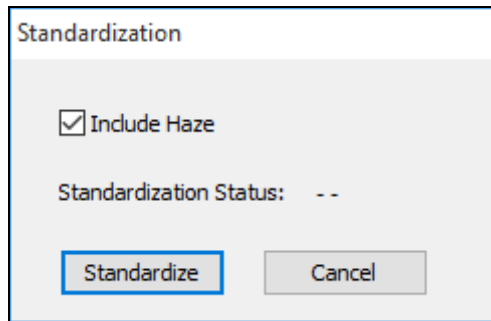


Figure 18. Haze Standardization Check Box

5. Read the standard or sample by choosing **Measurements > Read Standard** or **Measurements > Read Sample**, clicking the **Read Standard** or **Read Sample** button on the toolbar, or pressing **F2** or **F3**. The following prompt appears.
6. Place your sample against the transmission port next to the sphere. Click **Read**.
7. The instrument reads. You may be prompted to enter an ID for the measurement as usual. After you do so, Haze and the other parameters you chose to display will be shown in your Color Data Table.

ID	L*	a*	b*	Haze % C/2	Y Total C/2	Y Diffuse C/2
Haze sample	94.96	0.00	2.88	10.78	87.73	9.46

Figure 19. Haze Readings Reported

## Vista Maintenance and Testing

The Vista is engineered to be virtually maintenance free. This section outlines the few parts of the sensor that are to be maintained for the instrument to function properly.

### Cleaning the Vista

The Vista is NOT waterproof, but the exterior of the case may be wiped with a damp cloth.

Lift the light cover to access the transmittance compartment. The inside may be cleaned with a lens brush or with a small amount of soapy water on a lint-free cloth or towel.

**Note: Do not spray directly into the instrument chamber.**

### Haze Standard Care

The Assigned % Haze for this standard is a combination of the surface and internal scattering properties of this material. To maintain the surface properties, it is important that the surfaces of this standard are not damaged during normal usage. If the surface is contaminated, a cotton cloth moistened with isopropyl alcohol, or a laboratory glass cleaner such as Sparkleen can be used to gently wipe the surface. After wiping allow to dry for a minimum of 60 minutes.

### Didymium Standard Care

Check the filter for fingerprints, dust, and other contaminants. If necessary, gently clean the didymium filter with a cotton cloth moistened with Sparkleen. After wiping allow the filter to dry for at least one hour.

### Power Required

Voltage:	100-240 VAC, 1.5A, 47/63 Hz
Single Phase:	180 VA maximum
Fuse:	1.4A, SB
Installation Category (Over Voltage):	II

### Safety

- Do not view the instrument LED's directly as it may be damaging to the eyes.
- Do not submerge the instrument in water.
- Do not take the instrument apart as there are 'no user serviceable parts' in the instrument.
- Do not disassemble the instrument and attempt to clean the optical components. Do not open the instrument or remove any covers except using the instructions given in this User's Manual or under the direction of HunterLab Technical Support.

## Diagnostics on the Vista

Performance Diagnostics are included with the Essentials software version 1.01.0021 and higher. Please refer to the Vista Essentials manual for additional information. For updated Essentials software, refer to [support.hunterlab.com](http://support.hunterlab.com).



Figure 20. Performance Diagnostics

## Vista Specifications

The specifications and characteristics of your instrument are given in this section. For best performance, your instrument should be placed where there is ample work space with medium or subdued illumination and no drafts.

The instrument should be connected to a stable, instrument-grade power line. If other equipment is connected to the same power line, a transient power surge may be produced when the other equipment is turned on. If this happens, restandardize the instrument before making measurements. HunterLab recommends using a line conditioner with a minimum 600 VA rating and a battery back-up system.

### Physical/Electrical

Weight	6.35kg (14lbs)
Dimensions (Height x width x length)	177.8 mm x 485.8 mm x 228.6 mm (7 in x 19.13 in x 9.0 in)
Sample Compartment Height with Door closed	82.55 mm (3.25 in)
Communications Interface	1- USB Micro OTG to printer 2- Wireless mouse and keyboard 3- Ethernet RJ45 for Save, Print and Email capability
Standards Conformance	CIE 15:2004, ISO 7724/1, ASTM E1164, DIN 5033, Teil 7 and JIS Z 8722 Condition E, G
Safety Compliance	CE, IEC 61326-1
System Power	100-240 VAC/1.5A, 47-63 Hz

### Environmental Requirements

Operating Temperature	10°C - 40°C (50°F - 104°F)
Operating Humidity	10% to 90% relative, non-condensing
Storage Temperature	-21°C - 66°C (-5°F - 150°F)

## Conditions of Illumination and Viewing

Light Source	Full spectrum LED array
Dual Beam Spectrophotometer	256 element diode array and high resolution, concave holographic grating
Geometry	Tt/0° or Td/0° per ASTM
Sphere	76 mm (3 in) Spectralon™
Port Size/Measured Area	18.5 mm (0.73 in) illuminated/ 9.8 mm (0.39 in) measured
Transmittance Modes	Total (TRAN), Regular (RTRAN), Haze
Transmittance Compartment (HxWxD)	108.0 mm x 101.6 mm x 187.3 mm (4.25 in x 4.0 in x 7.38 in); Cover can be removed for large samples

## Instrument Performance


Spectral Data	Range: 400-700 nm Reporting Interval (nm): 10 nm
Spectral Resolution	<0.3 nm
Spectral Repeatability	Standard deviation within 0.1 %
Measurement Path length	Up to 100 mm
Photometric Range	0-150%
Measurement Interval	<3 seconds
Measurement Speed (at 23°C)	≤2.5 seconds; 4 flashes
Inter-instrument Agreement	$\Delta E^* \leq 0.15$ CIE L*a*b* (Avg) on Transmittance Filter Set; $\Delta E^* \leq 0.25$ CIE L*a*b* (Max) on Transmittance Filter Set
Colorimetric Repeatability	$\Delta E^* \leq 0.025$ on air w/30 readings

**Note: Every attempt at accuracy is made, but specifications are subject to change without notice.**

**Note: Use of this equipment in a manner not specified by the manufacturer may impair the protection afforded by the equipment. Danger of electric shock if liquids are spilled and fire if volatile or flammable liquids are spilled. Use care when measuring liquid samples.**

## Regulatory Notice

A copy of the Declaration of Conformity for the Vista follows.

 <b>HunterLab</b> ISO 9001 Certified	
<b><i>Declaration of Conformity</i></b>	
EU / EMC Directive:	2014/30/EU
Standard to which Conformity is Declared:	IEC 61326-1: 2012 / EN: 2013
Manufacturer:	Hunter Associates Laboratory, Inc. 11491 Sunset Hills Rd, Reston, VA, USA
European Representative: Representative's Address:	Christian Jansen Griesbraeustrasse 11, 82418 Murnau, Germany
Type of Equipment:	Transmission Spectrophotometer
Model No.:	Vista
<i>I, the undersigned, hereby declare that the equipment specified above conforms to the Directive(s) and Standard(s) above</i>	
Place: <u>Reston, VA, USA</u>	Signature <u></u>
Date: <u>May 25, 2016</u>	Full Name <u>Tim Barrett</u>
	Position <u>Systems Engineer</u>





## Instrument Replacement, Repair, Problems, and Questions

The following HunterLab policies are described in this chapter:

- Warranty
- Claims
- Returns/Service
- Technical Assistance.

### Warranty

HunterLab warrants that all instruments it manufactures are free from defects in material and workmanship under normal use. This warranty is limited to repairing or replacing any defective hardware or software that may cause the instrument to perform outside of its specified tolerances. This warranty is one year from date of shipment of new instruments and two months from the date of shipment of repaired instruments.

***Note that printers and computers are covered under the original manufacturer's warranty.***

The warranty is void if the user has made unauthorized repairs, improperly installed, operated, or subjected the instrument to conditions outside of the specifications in the product documentation.

The HunterLab warranty does not cover consumable items such as lamps, fuses, batteries, etc. An instrument registration card is shipped with each HunterLab instrument. It is important that the instrument owner returns this card promptly upon receipt of equipment.

Questions concerning operation, maintenance, or repair of your equipment can be directed to the Service Department at [Service@hunterlab.com](mailto:Service@hunterlab.com). Additional information can be obtained at <http://support.hunterlab.com>.

### Shipping Claims

All materials are sold F.O.B. from Reston, Virginia (unless otherwise specified) and HunterLab responsibility ends upon delivery to the first carrier. All claims for loss or damage must be rendered by the consignee against the carrier within fifteen days of receipt of goods. A copy of this notice must also be forwarded to HunterLab within five days of its receipt.

#### ***Breakage or Damage***

Per the contract terms and conditions of the carrier, the responsibility of the shipper ends at the time and place of shipment. The carrier then assumes full responsibility. Perform the following procedures if your instrument arrives broken or damaged.

#### **Freight or Express**

1. Notify your local carrier.

2. Hold the damaged goods with their container and packaging for inspection by the examining agent. Do not return any goods to HunterLab prior to inspection and authorization of the carrier.
3. File a claim against the carrier. Substantiate this claim with the examining agent's report. A certified copy of our invoice is available upon request. The original B/L is attached to our original invoice. If the shipment is prepaid, write for a receipted transportation bill.
4. Advise HunterLab regarding replacement.

#### **Parcel Post Shipment**

1. Notify HunterLab at once in writing, giving details of the loss or damage. This information is required for filing a claim.
2. Hold the damaged goods with their container and packaging for possible inspection by postal authorities.
3. Advise HunterLab regarding replacement.

#### **United Parcel Service**

1. Contact your local UPS office regarding damage and insurance claim. Each UPS office has a different method of handling these occurrences and yours will advise you of its procedures.
2. Retain the container and packaging.
3. Notify HunterLab at once for replacement.

#### ***Shortage***

Perform the following procedure if your order appears to be missing items.

1. Check the packing list notations. The apparent shortage may be a back ordered item and may be marked as an intentional short-ship.
2. Re-inspect the container and packing material, particularly to locate smaller items.
3. Ascertain that the item was not removed by unauthorized personnel prior to complete unpacking and checking.
4. Notify HunterLab immediately of the shortage in writing.

#### ***Incorrect Shipment***

1. Perform the following procedure if material received does not correspond with your order.
2. Notify HunterLab immediately, referencing order number and item.
3. Hold incorrect items until return shipping instructions are received.

## Returns

A service request order (SRO) number is required before any items can be returned to HunterLab. Contact HunterLab's [Order Processing Department](#) to obtain an SRO for damaged or incorrect parts, or [the HunterLab Service Department](#) to obtain an SRO to return an instrument for service.

Do not return any damaged or incorrect items to HunterLab until all shipping instructions are received.

**Note: HunterLab must be notified within fifteen days or we cannot accept responsibility for damaged or incorrect items.**

HunterLab offers complete repair service for all instruments it manufactures. Call HunterLab for the service facility nearest your location. If your equipment is not functioning properly, contact HunterLab Technical Support for maintenance or repair instructions. Many times, this on-the-spot diagnosis is all that is required.

If repair is required, HunterLab offers two means of servicing. Instruments may be returned to a HunterLab service facility for repair or a HunterLab Service Department technician can come to your location to perform on-site repair. For schedule and terms for on-site repairs by trained service technicians, call HunterLab Technical Support. Please read "When You Need Assistance" prior to contacting HunterLab.

The customer is responsible for incoming and outgoing freight charges for instruments being returned to HunterLab for all repairs, including warranty repairs.

### ***Packing and Shipping Instruments for Repair***

Please regard the following instructions when packing your instrument to return it to HunterLab for repair. **Proper packing is crucial.** These instructions do not replace the recommended professional packaging for your instrument, but may assist in eliminating the need for a shipment claim due to faulty packaging. Purchasing freight insurance does not guarantee a successful damaged shipment claim if the carrier determines the instrument was not packaged properly.

- The didymium and haze filters, power supply, power cords, and cables for the instrument should be included in your shipment. **Your repair estimate will be delayed if the instrument tiles are shipped separately later.**
- Tape the transmission compartment door closed. **Do not use duct tape.** "Painter's tape" is preferred, as it will not leave residue on the instrument.
- Insert the instrument into an anti-static or plastic bag prior to placing it in the carton. The bag will aid in keeping packing material out of the instrument.
- Place the bag-wrapped instrument into a new carton which includes, at a minimum, **6 inches of packing material** (preferably foam) around the instrument. Styrofoam peanuts should not be used as packing material for instruments, as they can suspend items weighing only up to 5 pounds. Observe the information listed on the bottom of most cartons with regard to burst strength and gross weight limits. Single wall

cardboard cartons should not be used. (A proper packing carton with packing material may be purchased from HunterLab, if desired.)

- Insure the shipment.
- Provide an itemized packing list of all contents of the shipment.
- Label the carton(s) as follows:

Hunter Associates Laboratory Inc.  
Attn: SRO # \_\_\_\_\_  
11491 Sunset Hills Road  
Reston, VA 20190  
U.S.A.

## When You Need Assistance

When you have a problem with an instrument or software or need technical advice concerning a specific application, you may consult the support website ([support.hunterlab.com](http://support.hunterlab.com)). There are numerous articles on applications, operations, instrument accessories, troubleshooting and more. This is available 24/7. If you don't find the information that you require, then you can open a support request from the website page. Please include the following information when corresponding with HunterLab.

1. The type of sensor you are using.
2. The serial number of the instrument (usually found on a tag on the back or bottom of the sensor, or inside the transmission compartment).
3. The type of software you use to access the sensor output (EasyMatch QC or Vista Essentials), the version of the software (seen after choosing **About** from the **Help** menu), the operating system, and the brand and type of computer.
4. The specific nature of the problem, including the exact error message received or the number of units the sensor reads "off" from the standard.
5. The steps performed prior to the start of the problem.
6. Steps already performed to reconcile the problem and/or results of any diagnostics.
7. The type of product being measured.
8. Operating environmental conditions under which the instrument is normally used, such as temperature, humidity, dust, fumes, etc.
9. Whether the instrument has recently been moved or the computer reconfigured.
10. The name(s) of any HunterLab personnel with whom you have previously discussed the problem.

To place an order, for prices on instruments, software, or replacement parts, or to return damaged or incorrect parts, ask for the [Order Processing Department](#). For applications advice or for help in correcting instrument or software problems, ask for Technical Support. To return instruments to HunterLab for service, or to ask questions about the servicing or recalibration of instruments, ask for the [HunterLab Service Department](#). To speak with HunterLab, please call 703-471-6870.

The mailing address for HunterLab headquarters is given below. Customers outside the United States should contact their HunterLab distributor for initial assistance.

Hunter Associates Laboratory, Inc.  
11491 Sunset Hills Road  
Reston, Virginia 20190 U.S.A.



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