



SpectraWiz Spectrometer Installation

>>Information found on unit label

All spectrometers automatically load parameters from unit memory when SpectraWiz software is started from your windows computer.

"Older spectrometers" with parallel port connector plus USB2EPP cable (silver DB25 connector at other end of USB2 cable) require parameters to be entered the first time a unit is attached. The same procedure can be used to verify each spectrometers wavelength coefficients that define the units x-axis:

Note: the following steps are not required if you received a new spectrometer! However, if you received a "new" GREEN-Wave16 spectrometer see 3a below!

1. Open SpectraWiz and select the "Setup" menu -> then select "Unit Calibration Coefficients."
2. Enter 1 at the channel prompt and then enter C1, C2, C3, and C4 values which are listed on the bottom label of the spectrometer. If no C4 is listed on the label then enter 0.
3. Select: "Setup" -> "Interface and Port Detector."
 - a) Always check USB2EPP cable unless using the GREEN-Wave (12bit spectrometer which is now discontinued). However, if installing the new "GREEN-Wave16", check USB2EPP + LT16 + BW >> it is 16-bit!
 - b) Select the digitizer type listed on bottom of the spectrometer. These are LT12/LT14/LT16. If the digitizer is not listed, do not select any.
 - c) Select detector type; default is CCD 2048 unless otherwise stated on label.
4. Now, exit SpectraWiz for the changes to take effect. Start SpectraWiz and verify continuous spectral graph display updates appear.

For further instruction -->>> WATCH the SpectraWiz Application videos !!

Special note for Windows 7 users: (my-cname below is your computer's name)

c:\users\my-cname\AppData\local\VirtualStore\Program Files\StellarNet\SpectraWiz\

This path is where Windows 7 will store all SpectraWiz application log files and other data that you may save along with any folders created, if you don't select a location outside the SpectraWiz folder (which is in the Program Files path). So when you go to look for your data and don't find it, relax! It's right in this location :)



SpectraWiz Spectrometer Installation

SpectraWiz Software Installation Guide

StellarNet Inc., Tampa FL, USA

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Before you Start Go to www.StellarNet.us/register and register your StellarNet spectrometer to claim your one year warranty and receive an email with StellarNet Driver and Spectrawiz Downloads.

1. Install drivers and operating software from StellarNet website
=>for 64bit Windows Vista/ 7/8/10

Select my computer properties to verify you have a 64-bit operating system.
SWDriver64 installation is ok with or without spectrometer attached via USB...

DRIVER INSTALLATION

1. Open the SWDriver16 folder then Click "SWDriver64.exe"
This copies files to your hard drive folder c:\SWDriver64
2. Navigate to this folder using Windows Explorer, then select file "Install-SWDriver" and use right click to "Run as administrator"
3. Check "Always trust StellarNet" if prompts appears
After a while a message should indicate driver installation complete.
4. Attach spectrometer via USB cable and see the green LED turn on.
The LED indicates spectrometer is ready to operate.

SOFTWARE INSTALLATION

5. Install the SpectraWiz Software by running the "SWUpdate-Install.exe" as Administrator. This is located in the StellarNet Software folder. A quick start desktop icon will appear.

=>for 32bit Windows 7/ 8/ Vista / other versions read below:

- a) Attach USB cable to spectrometer. b) Attach UP5V to spectrometer (if older unit)
- c) Attach USB cable to available USB port on PC (or USB hub) => Device wizard appears

WinXP => allow to search for a suitable driver on StellarNet USB-drive

Win 7 /other => specify path to USB-drive \SWDrivers13\ spectro-type \ OS-version



SpectraWiz Spectrometer Installation

spectro-type = \SWDrivers-USB2-Spectrometers or \SWDrivers-USB1-GREEN-Wave
OS-version = \WinXP-Vista-7 or \Win8-32b or \Win7or 8-64bit <64 works this way too

Use Device Manager to verify "StellarNet Spectrometer" is listed under USBDEV device. Windows 7 users may see "unknown device" appear and will need to click "Update driver" then specify proper driver location as shown above. To start Device Manager, Right click on MyComputer then select Manage, then select Device Manager on list.

If Device Manager says "spectrometer - start" you need to select "Update driver". If you have the time, it is smart to repeat the cable installation for each USB port on your PC however Windows 7 users do NOT need to do this.

2. Install latest version of SpectraWiz using SWUpdate.exe from StellarNet website. Click on SpectraWiz desktop icon to start, then verify continuous spectral graph display updates appear with spectrometer attached, then exit SpectraWiz.

For operation as a SpectroRadiometer goto step 3.

If you see BW-16 listed on spectro bottom label: the x-axis coefficients load automatically. Otherwise use "Setup -> Unit Calibration" menu. See reverse side for detailed instructions.

3. Install intensity calibration files for SpectroRadiometer operation

The calibration files are installed by clicking CD:\MyCal-nnnnn.exe where "nnnnn" = spectrometer serial # shown on label.

This self extracting zip file moves all ".cal" files (if you ordered more than one) to C:\Program Files\StellarNet\SpectraWiz\SwCals

Start SpectraWiz and verify continuous spectral graph display updates appear.

Get going FAST -->>> WATCH the SpectraWiz software training videos on the USB-drive!

Driver and software updates are easily downloaded from the StellarNet website

a. All drivers are in SWDrivers12 password="wdrivers" b. SWUpdate (all Window versions) password= no password get the latest version now

Additional information is available in the Spectrometer Manual on StellarNet USB-drive!

For StellarNet technical support, Phone: 813-855-8687 or email: Contactus@StellarNet.us



Certificate of Irradiance Calibration - # 16082422-UVVIS-CR2

StellarNet Inc. hereby certifies that the spectrometer instrument identified below has been irradiance calibrated; using equipment whose accuracy is traceable to NIST (U.S. National Institute of Standards and Testing) by LI-COR Certificate of Calibration.

Customer: California Institute of Technology
MODEL: BLACK-Comet CXR-SR-50
SERIAL NUMBER: 16082422
ACCESSORIES: F600 UVVIS-SR fiber optic cable with CR2
CERTIFICATE NUMBER: 16082422-UVVIS-CR2
DATE ISSUED: November 9, 2016
VALID: 12 Months

SPECTRAL IRRADIANCE CALIBRATION DETAILS:

Calibration types: UV for range 200-600
VIS for range 300-1100
Cal Equipment: StellarNet spectral UV irradiance lamp – model# SL3, serial#06072616
LI-COR spectral irradiance lamp – model# 1800-02L, serial# ORL1027L

CALIBRATION NOTES:

1. Absolute calibration accuracy +/- 5.0% @ cal detector integration setting.
2. Irradiance calibration file, sw1.icf was generated by the StellarNet SpectraWiz software.
3. MyCal-C16082422-UVVIS-CR2.exe file was generated and saved to the calibration USB.
4. Temperature +25 ° ± 2 ° Centigrade and Relative Humidity 45% ± 20% R.H.

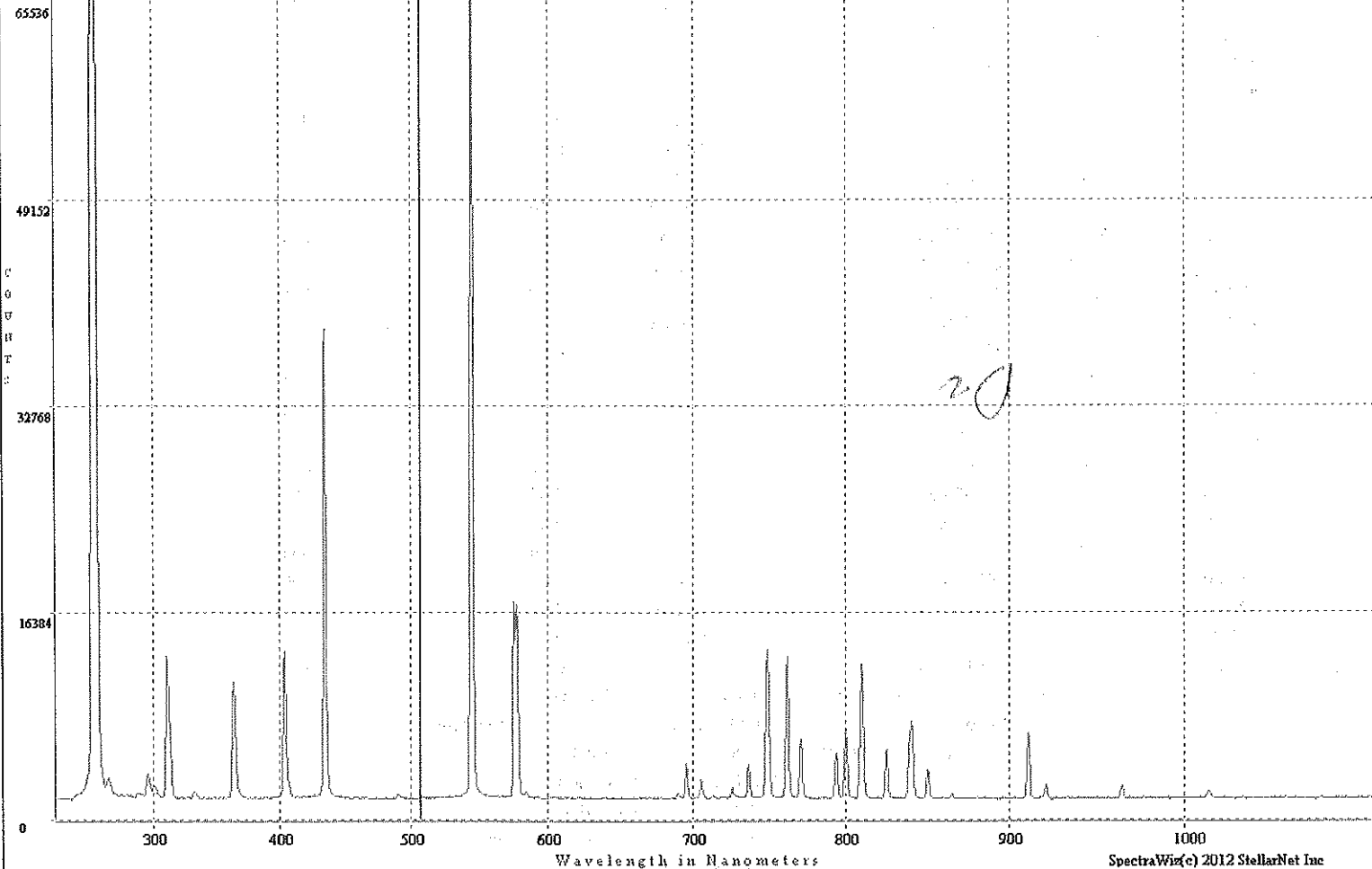
Calibrated by: Stefanie K. Dahl.....*Stefanie Dahl*.....

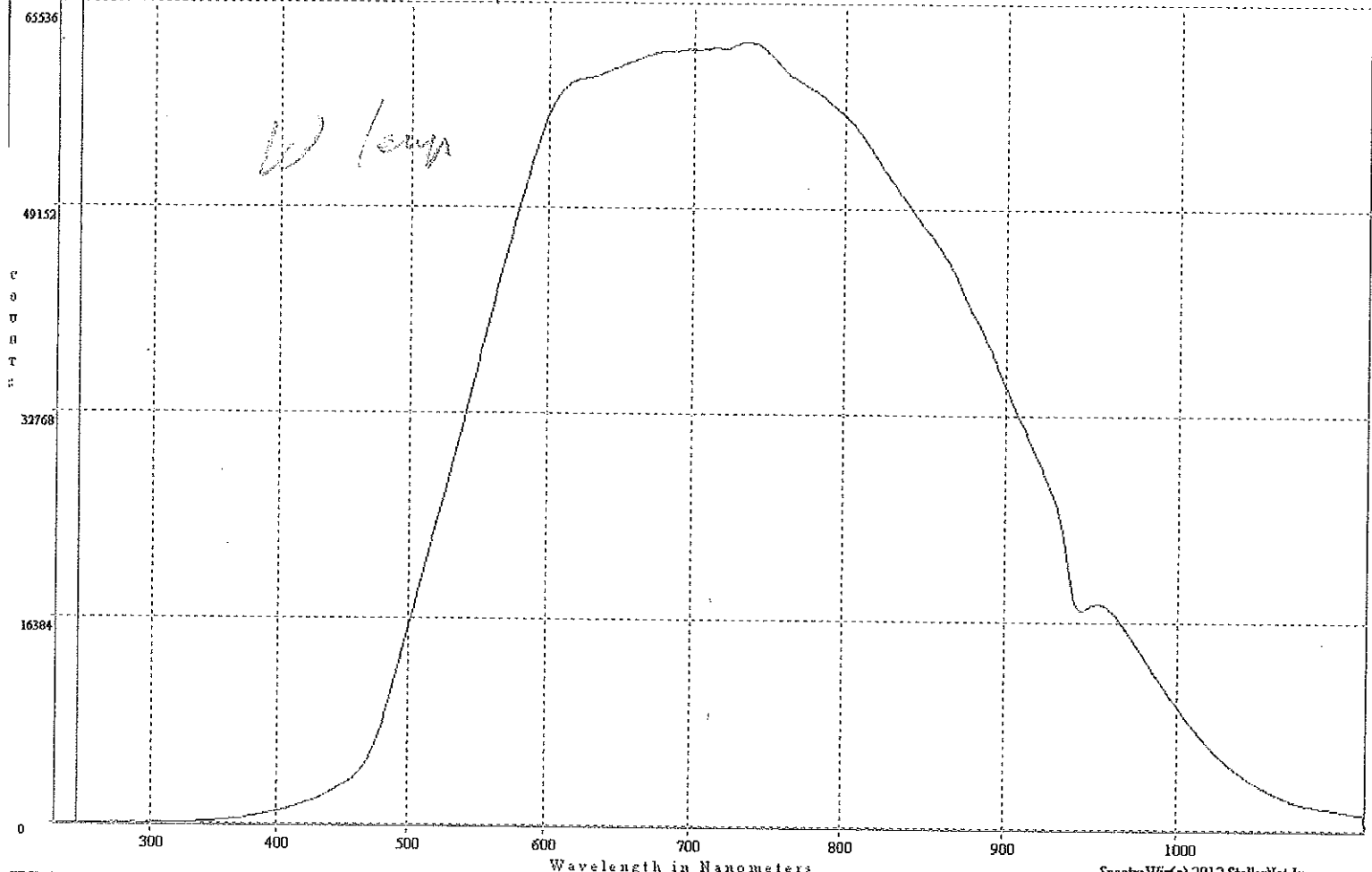
8/24/2016 BLACK CXR-SR-50 S/N:16082422



SCOPE-> Wave:511.53nm Pix:571 Val:14087.000 Time:30ms Avg:1 Sm:0 Sg:0 Tcoff Xt:3 Ch:1

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Wavelength	Pixel/2	Pixel^2	WaveEst	WaveError	Pixel #
253.65	29	841	253.48	0.17	58
312.56	85.5	7310.25	312.68	-0.12	171
365.01	136.5	18632.25	364.97	0.04	273
404.66	176	30976	404.73	-0.07	352
435.83	207.5	43056.25	435.96	-0.13	415
546.07	322	103684	546.01	0.06	644
579.07	357.5	127806.25	579.02	0.05	715
696.54	489	239121	696.70	-0.16	978
706.72	500.5	250500.25	706.64	0.08	1001
727.29	524.5	275100.25	727.23	0.06	1049
738.40	537.5	288906.25	738.28	0.12	1075
750.39	552	304704	750.52	-0.13	1104
763.51	567.5	322056.25	763.50	0.01	1135
772.38	578	334084	772.24	0.14	1156
794.82	605.5	366630.25	794.92	-0.10	1211
801.48	613.5	376382.25	801.45	0.03	1227
811.53	626	391876	811.61	-0.08	1252
826.45	644.5	415380.25	826.53	-0.08	1289
842.46	664.5	441560.25	842.50	-0.04	1329
852.14	676.5	457652.25	852.00	0.14	1353
912.30	754.5	569270.25	912.28	0.02	1509
922.45	768	589824	922.45	0.00	1536
965.78	826.5	683102.25	965.67	0.11	1653
1013.98	894.5	800130.25	1014.10	-0.12	1789

*210903
calibration*

Wavelength Calibration Coefficients Spectrometer
 BLACK-Comet CXR-SR-50 e 1101
 S/N: 16082422 BW16 tob RoHS
 C1 = 1.07169 dispersion
 C2 = -0.0002088 2nd order
 C3 = 222.58 starting wavelength
 M:367,368,369