Datacolor Spectro 55 User's Guide





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To obtain information on local agents, contact either of the offices listed below, or visit our website at www.datacolor.com.

Support Questions?

If you need help with a Datacolor product, please contact one of our top-rated technical support teams listed below for the Datacolor office in your area.

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Europe (Belgium, Netherland and Luxembourg)	Datacolor België BVBA	+32 9 243 87 27	Email
Europe (France, Paris)	Datacolor SAS	+33 148185 480	Email
Europe (Germany, Marl)	Datacolor Marl	+49 2365 510950	Email
Europe (Italy)	Datacolor Italy SRL	+ 39 0362 332142	Email
Europe (Switzerland and Other Countries Including Middle East & Africa)	Datacolor AG Europe	+41 448353711	Email
Europe (Turkey)	Datacolor Renk Teknolojileri Ticaret ve Servis Limited Sti.	+90 216 4553085	Email
Europe (United Kingdom)	Datacolor Ltd	+44 1619299441	Email
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Asia (China, Shanghai)	Datacolor Shanghai	+86 21 5308 6988	Email
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Datacolor Spectrophotometers

About the Datacolor Spectro 55 Instrument

The Datacolor Spectro 55 instrument is the newest generation of Datacolor's retail paint measuring instruments. This 45/0 measurement geometry instrument is intended for retail paint applications.

Use Datacolor Spectro 55 to quickly and accurately measure samples to produce quality custom color matches.

Easy integration with Datacolor Paint software or your own retail software, this solution reduces your cost of operation and increases your profitability.

Datacolor Spectro55

Below is a summary of the features included with the instrument.

Features include the following:

- 45/0 Geometry or d8 SCI Mode
- Simple calibration with built in calibration tile.
- Stainless steel aperture plate, for cleaning.
- Sample viewing port for easy sample alignment.
- Built in measurement button.
- Calibration indicator light.

Electrical/Environmental Requirements

Input Power Requirements	5V DC, 150 mA
Operating	Temperature: 5°C to 40°C
Environment	Maximum Relative Humidity: 20%-85% non-condensing
	Altitude: Up to 2,000 meters
	Do not store above 140°F (60°C)
	Indoor Use
	Do not crush, short circuit, mutilate, reverse polarity, disassemble, or dispose.

Safety Features

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.



CAUTION

There are no user-serviceable parts for this equipment.

Light Source

Do not stare directly into the open port of the instrument when the measurement is in progress.

Power

The USB-C cord supplied with the unit <u>must</u> be used to connect to an earthed (grounded) power supply.

The power cord supplied with the unit must be used.



⚠ CAUTION

Disconnect power before servicing.

Feature Summary

This instrument employs state-of-the-art features including the spectrometer, light source, and optics. Below is a summary of those features:

Datacolor Spectro 55		
Instrument Type	45/0 Spectro	
Geometry Output	45/0 Mode of d8 SCI Mode	
Light Source	LED	
Spectral Analyzer	8 Channel sensor with dual illumination	
Repeatability (Max on White Tile)	0.03 SD / 0.10 Mas CIE2000	
IIA (32 Master Standard Tiles)	45/0Mode IIA CIE2000 0.3 avg / CIELAB 0.4 avg	
	SCI Mode IIA CIE2000 0.4 avg / CIELAB 0.6 avg	
Wavelength Range	400nm - 700nm	
Aperture Size	6 mm	
Reporting Interval	10 nm	
Data Interface	USB	

Accessories

All models come with the following standard accessories:

- Power cable
- Micro USB to USB C cable

Calibration Tile

The white calibration tile is embedded into the sample arm and covered with a protective cap.

Protective cap will be removed only when calibrating, and returned to keep the tile clean and safe from damage.

Cable Installation

Overview

Datacolor Spectro 55 required 2 cables, a power cable and USB cable that connects the instrument to a PC.

Both are plugged into the back of the instrument.





Turn off the power before working with any cables.

Read the "Electrical and Environmental Requirements" section *BEFORE* connecting your instrument.

Power Supply

Must use supplied Wall mounted AC/DC power adapter.

You need an AC Plug adapter that is specific to your geographical location. This is specified as part of the shipment. AC Clips are available for Greater China, North America, South America, Europe, India Subcontinent and Southeast Asia

Power Cable Connection

Plug the end of the barrel jack power cord into the power receptacle on the rear panel of the instrument. Insert the plug into a standard AC outlet.



The cable supplied with the instrument <u>must</u> be used. No other cords are acceptable.

Communications Cable

The instrument is connected to a computer through a Micro USB to USB-C port.

USB Cable Connection

To connect the instrument to the computer using the supplied cable:

- 1. Connect the Micro USB cable to the connector on the instrument.
- 2. Connect the USB-C cable to the computer.

Power Switch

The power switch is located on the back of the instrument at the bottom end.

Controls and Indicators

Status Panel



Power – Green light indicates Power On

Calibration – Indicates if the calibration interval has expired.

 $\label{eq:RedLight-Calibration} Red\ Light-Calibration\ has\ elapsed.\ Recalibrate\ instrument\ to\ ensure\ an\ accurate\ measurement.$

Green Light – Instrument is calibrated.

Measurement Button

On board measurement button:

Able to trigger a measurement from the instrument.

Instrument Calibration

General Calibration Information

Datacolor Spectro 55 must be calibrated regularly to ensure that the measurements are accurate. This section provides instructions for performing a calibration with Datacolor Paint



NOTE

The recommended calibration interval for the Spectro 55 with Datacolor Paint is every 24 hours to account for any changes in the device over time. The instrument is calibrated through the attached software.

Calibration Data

No calibration data is required for the Spectro 55.

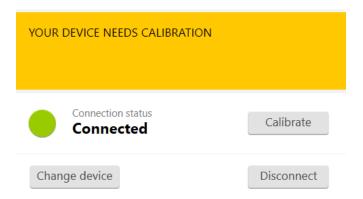
Instrument Setup for Datacolor Paint

Datacolor Spectro 55 device must be added to the manufacturers database via Datacolor Paintlab software.

Paint 2.x

- Select Configuration Settings/Devices/Spectrophotometer
- Select the Spectro 55 from the list (Accept All)
- Restart Paint if instructed
- Before connecting, ensure that the device is on and linked to the PC through the USB cable. Click Connect when prompted.
- Your device is ready to be Calibrated and used.

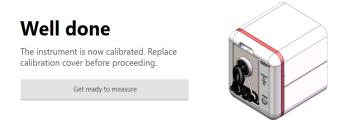
Instrument Calibration with Datacolor Paint



- 1. Select Calibrate.
- 2. Remove white tile Cover from sample arm.
- 3. Close sample arm.



- 4. Select Click to calibrate now
- 5. Calibration Succeeded Click Get ready to measure



6. Calibration Failed - Check white tile is up against spec port, Repeat Step 4

Measurement

Sample Presentation and Measurement

When measuring samples using Datacolor Spectro 55, you must pay close attention to the positioning of the sample to insure an accurate measurement. When positioned correctly, the sample rests between the sample holder and the front panel door. The sample must completely cover the aperture opening.

To position the sample:

- 1. Grasp the sample holder and pull forward.
- 2. Position the sample at the port.
- 3. Return the sample holder to the upright position.

Sample Presentation and Measurement

When measuring small samples, you may need to verify that the correct area of the sample is being measured.

To check the sample area being viewed by the lens:

- 1. Grasp the tab above the aperture plate.
- Pull the tab down to its full horizontal position. Look at the backside of the door to see the
 area of the port opening that is covered by the sample. If necessary, adjust the
 placement of the sample to properly position the sample area to be measured. The
 sample must completely cover the port opening.
- 3. Push the door back to its normal position, and start the measurement.

Appendix

Datacolor Global Support

A complete User's Guide is provided with this product. However there are also resources regarding color education on the Datacolor website, including contact information for local Datacolor offices.

http://industrial.datacolor.com/support/contact-us-2/