



KONICA MINOLTA

NEW Color Data Software

SpectraMagic NX2

Pro version

Lite version



Color QC App



Configuration Tool



Instrument Check App

Easy to use / Streamlines workflow / QC software used in fields around the world



The Standard in Measuring Color & Light

Giving Shape to Ideas

Color Data Software SpectraMagic NX2

Redesigned user interface

Long-awaited software with enhanced QC functions

SpectraMagic NX2 consists of three apps



Color QC App
Connect measuring instruments and easily perform advanced color quality control



Instrument Check App
Easily check the condition of the measuring instrument



Configuration Tool
Measuring instruments can be configured all at once

Color QC App

The software's main function, "Color QC App" can display various screens such as pass/fail judgement, color analysis, and process management by connecting spectrophotometers or colorimeters to the computer and measuring sample data.

Display and edit according to purpose

Screens that users have arranged and edited can be saved as templates.

Objects such as measurement data and graphs can be copied directly to Excel® for easy data management and report creation.

1 Tree Window

Shows document measurements organized into absolute and target measurements.

2 Data List Window

Shows the measurement data for the selected branch in the Tree Window.

3 Data Property Window

Shows the data properties for the selected sample.

4 Evaluation Window

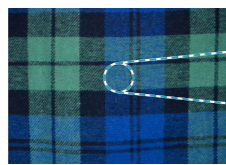
Shows the evaluation results and measurement data for the selected sample.

5 Canvas Window

An area in which various graphic elements such as spectral graphs, data tables, etc. can be placed.

Electronic viewfinder function

Check the measured value on the PC screen
*When a compatible model is connected



Measurement sample

Easy-to-understand quality evaluation results

Bank Judgement	Group Traits	ΔL^* (10/265)	Δa^* (10/265)	Δb^* (10/265)	ΔE^*_{ab} (10/265)
Pass	SCI	0.00	0.00	0.00	0.00
Pass	SCE	0.00	-0.01	0.00	0.01

Improved operability of detailed settings

It is possible to set measurement conditions for standards and samples all at once.

The design of the system allows users to quickly grasp information, preventing operators from making errors in judgment and contributing to more efficient workflow.

Easy organization of large volumes of data

Name	Value
lot	1102
bumper	right
color	RED

Classification by tabs (Tree Window)

Ex.) Grouping by tag "20230718"

Information can be easily organized by adding tags, comments, images, etc. to each data.

Supports advanced classification with user-defined information

Examples of using User Defined Information : There are three value types to choose from (numeric/string/list).

1 Numeric

Name	Value
Lot Number	1111

[Example]
• Lot number
• Control number

2 String

Name	Value
Operator	Konica Minolta

[Example]
• Worker name
• Sample name
• Creation date

3 List

Name	Value
Measurement part	Top
	Bottom

[Example]
• Customer name
• Measurement point
• Production line

Display in tree window

POINT

Multiple subgroups can be displayed within a group by using user-defined information

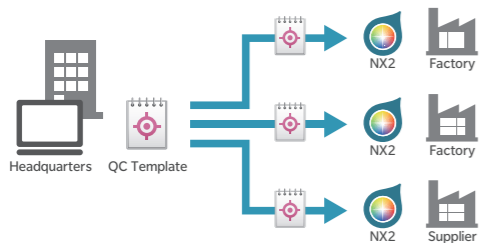
User-defined information (Pro version only) is additional information for classifying measurement data in detail. Measured data can be quickly identified by setting this information in advance.

Original report creation function

The print screen allows you to freely arrange objects to create your own layout.

Full range of functions in Color QC App

Enables consistent color management across factories



Brand owners/managers can use QC templates (Pro version only) to standardize workflows and streamline inspection tasks. By setting measurement types, multiple color tolerances, and display layout, the operator does not need to configure the settings in advance, which helps preventing errors.

<Differences between two types of templates>
 Display Templates : Only display layouts and list items can be saved.
 QC Templates : In addition to display templates, you can save target data and tolerance settings, target and sample measurement conditions, display layout, instrument settings, etc.

Data comparison under multiple observation conditions (Observer/Illuminant) is possible

Data Name	L* (10°/D65)	L* (10°/LED-B3)	L* (10°/USER2)
Target #00001	69.98	68.41	69.42

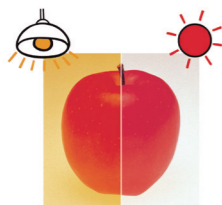
LEFT : D65
 CENTER : LED-B3
 RIGHT : Light source in real environment captured by CL-500A

Data Name	Pseudo Color (10°/D65)	Pseudo Color (10°/LED-B3)	Pseudo Color (10°/USER2)
Target #00001	[Image]	[Image]	[Image]

In the data list window, you can set indexes according to various standards and color space. The increased number of configurable items means that it is no longer necessary to switch settings for each measurement, and it is possible to display and evaluate under multiple observation conditions (Observer/Illuminant) at the same time. (There is no limit to the number of light sources.) In addition to improving work efficiency, it also makes it easier to evaluate how colors appear under various environments.

Now possible to evaluate LED illuminants!

Usage example:
 Acquiring measurement data based on visual perception in a room using LED lamps

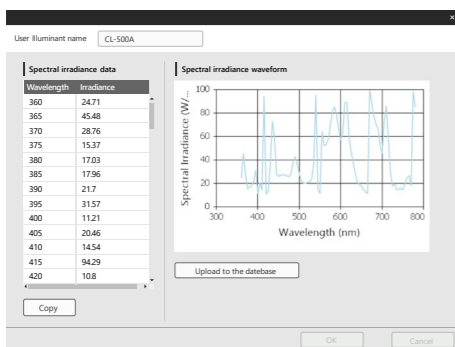


LED illuminants

- LED-B1 LED-B2 LED-B3 LED-B4 LED-B5
- LED-BH1 LED-RGB1 LED-V1 LED-V2



Evaluation using user light sources of real environments is also possible



Now you can import data from Illuminance Spectrophotometer CL-500A!

By connecting CL-500A (optional), you can import light source information of the actual environment during measurement in order to quantify colors that are closer to what the human eye sees and in the field. Up to 100 user light sources can be registered.

Example of use : Evaluating how car body colors appear under various lighting conditions in a car showroom

(1) Measure the spectral irradiance data of the actual light source with CL-500A



(2) Import the light source data from (1) into SpectraMagic NX2



(3) Color evaluation is possible by selecting the environmental condition of (1)



NEW Ver.1.4 or later

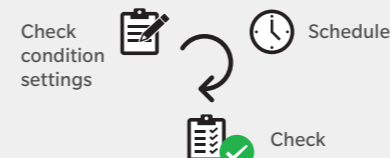
Instrument Check App



*The new application "Instrument Check App" can be used for free for 1 year after purchase! *

* Premium license (Listed on page 6) is required for continuous use.

Supports instrument check cycles Alerts prevent forgetting inspections



Monitor the status of measuring instruments Inspection information is linked to the Color QC App

Inspection information is linked to the Color QC App

CM-17d	Serial No. 90000000	✓
CM-16d	Serial No. 90000000	✓
CM-26dG	Serial No. 90000000	!
CM-36dG	Serial No. 90000000	!

Understand results and trends with reports and graphs



Maintain the performance of the instrument in combination with periodic calibration

The condition of measuring instruments can be easily checked and monitored. By comparing measured results with past data, you can understand performance fluctuations and prevent problems during use.

<Three indicators>

- Repeatability:** Evaluates the short-term repeatability by using the white calibration plate and the gloss plate. It shows changes in the variability of measurement data.
- Reproducibility:** Evaluates color differences by remeasuring a reference sample. Allows monitoring of long-term variations in measurement data.
- Light source output:** Evaluates the amount of variation in light source light intensity from the shipment of the instrument (or from the completion of calibration service).

- After periodic calibration at a Konica Minolta-authorized service factory, this application can monitor the measuring instruments to ensure high accuracy until the next periodic calibration.
- The report function can also be used as a tool for efficient supply chain management.

Periodic calibration: In addition to inspection and calibration of the equipment, cleaning and replacement of parts according to their condition is performed. To maintain the accuracy of the instruments, we recommend a combination of daily inspections using this application and periodic calibration.



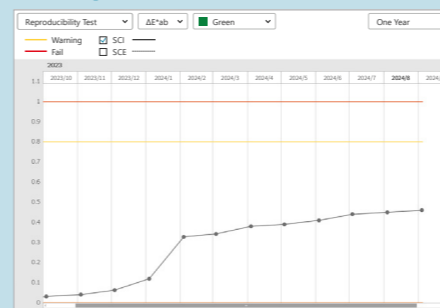
1 Tabular format

Date Time	Action	Result	Light Source	Color	Gloss
9/4/2024 10:20:19 AM	Instrument	Pass	✓	Repeatability	Reproducibility
9/4/2024 10:16:32 AM	Gloss Calib	✓	✓	✓	✓
9/4/2024 10:16:30 AM	Wavelength	✓	✓	✓	✓
9/4/2024 10:16:30 AM	White Calib	✓	✓	✓	✓
9/4/2024 10:15:57 AM	Zero Calibr	✓	✓	✓	✓
9/2/2024 9:50:19 AM	Instrument	Pass	✓	✓	✓
9/2/2024 9:47:38 AM	Gloss Calib	✓	✓	✓	✓

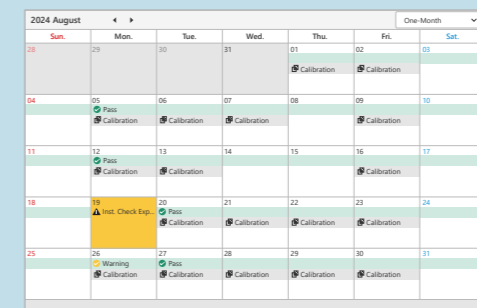
POINT!
 Status can be monitored with icons

- Pass
- Warning
- Fail

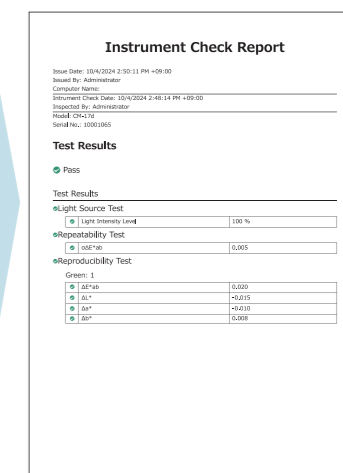
2 Graphical format



3 Calendar format



Easy-to-read PDF reports are automatically generated



For reproducibility evaluation, we recommend using the green tile for control

It is also possible to select an optional color plate (14 colors in total) that is close to the actual evaluation sample, or a sample that the customer owns.

Recommended for:

- Those who carry out periodical inspections and calibrations every year.
- Those who need to manage the history of instrument inspections, calibrations, etc. in ISO quality management.
- Those who need PQ (Performance Qualification).



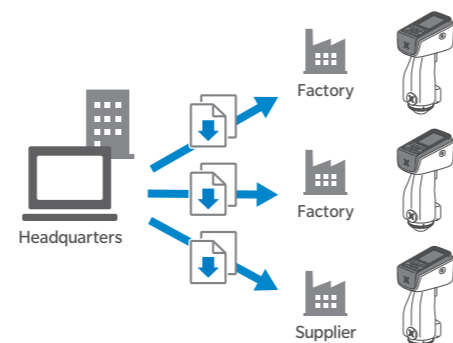
Configuration Tool CM-CT1

Convenient setting software is integrated into this package

The CM-CT1 gives manufacturers the means for easily and quickly setting up their spectrophotometers. Moreover, when multiple devices are used or when the same conditions need to be set amongst multiple factories or suppliers, settings can be compiled into a file and shared.

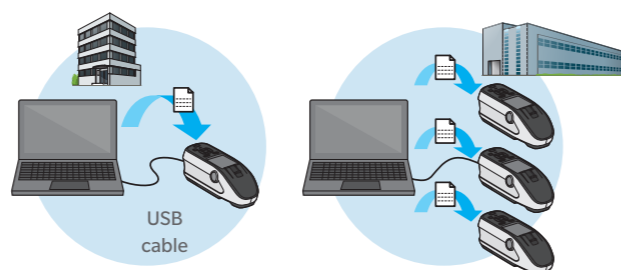
Setting of User Index*1 has been added.

*1: Settings can be made when CM-17d/16d, CM-26dG/26d/25d, CM-25cG or CM-5/CR-5 is connected.
The feature is only available when SpectraMagic NX2 dongle is plugged into the PC or a dongleless license is activated.



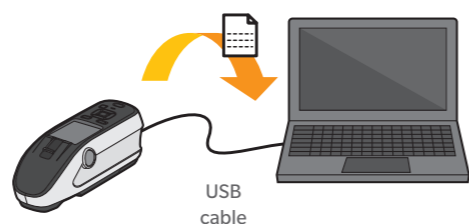
Instrument Settings

CM-CT1 allows various instrument settings, such as measurement conditions, instrument display contents, user-based instrument operation restrictions, WLAN/Bluetooth® settings, etc. to be set using a computer. The software also allows setting contents to be exported to a file which can then be applied to multiple spectrophotometers.



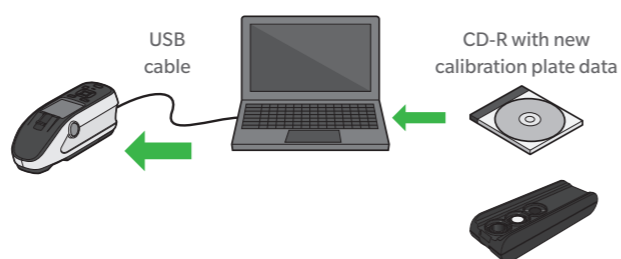
Export Data

Data saved to a spectrophotometer (spectral reflectance data, plus gloss data for CM-26dG or CM-25cG) can be saved to a CSV file.



Calibration Data Settings

When purchasing a new white calibration plate or gloss calibration plate, the calibration plate data must be set in the instrument before measurement can be performed.



Remote Control

While displaying the LCD screen of the spectrophotometer* on a computer in real time, CM-CT1 enables control equivalent to key operations on the actual instrument (except for control by power switch and measurement area switch)

In addition, by accessing (via remote desktop, etc. over a network) a computer connected to the spectrophotometer, control of the spectrophotometer is possible even from remote locations.

* CM-26dG series, CM-25cG, CM-17d series, or CM-M6 devices only.



PREMIUM



SpectraMagic NX2 continues to evolve to meet customer needs



What is Premium License?

SpectraMagic NX2 is also available as a term-based premium license (paid) which allows you to experience special value in addition to regular use. By signing up this license, you can use the Instrument Check App that allows you to check the status of your instrument, as well as additional functions that come with version upgrades. When you purchase this software, a **one-year free premium license** is included.

Main Specifications

Configuration Tool CM-CT1

<Compatible Instruments>

Measuring instruments	CM-17d/CM-16d, CM-26dG/CM-26d/CM-25d/CM-23d*9+10, CM-25cG*10, CM-M6, CM-700d/CM-600d, CM-5/CR-5*9+10
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<Main features>

Features*1	Connect / Disconnect instrument, Display instrument information, Setting of instrument settings (System, measurement conditions, Display*4, Default tolerance, Target filter*5, User Index*6), File import / export, Data output, Setting of calibration data, Remote control of instrument*7, WLAN connection settings*8+10
Supported file formats*2	Input/output instrument settings file: *.cm17d, *.cm16d, *.cm26dg, *.cm26d, *.cm25d, *.cm23d, *.cm25cg, *.cmm6, *.cm700d, *.cm600d, *.cnd Output data file: *.csv Input calibration data file: *.cwl, *.cwm, *.cws, *.cw6, *.gum, *.gus Input/output WLAN connection settings file: *.wssf
Display languages	Japanese, English

<Minimum Computing Requirements*3>

OS	: Windows® 10 Pro 64 bit Version 1903 or higher/Windows® 11 Pro
CPU	: Intel® Core i5 2.7GHz or higher processor (recommended)
Memory	: 2GB or more (4GB or more recommended)
Storage	: 10GB or more
USB port	: Required for connection with measuring instrument, Required for SpectraMagic NX2 dongle

- *1: The functions that can be displayed, set, and executed differ depending on the connected instrument.
- *2: The file that can be input/output differs depending on the connected instrument.
- *3: The hardware of the computer system must meet or exceed the greater of the recommended system requirements for the compatible OS being used or the above specifications.
- *4: Available only when using CM-17d/16d, CM-26dG/26d/25d/23d, CM-25cG, CM-M6 or CM-5/CR-5.
- *5: Available only when using CM-17d/16d, CM-26dG/26d/25d/23d or CM-25cG.
- *6: Available only when using CM-17d/16d, CM-26dG/26d/25d/23d, CM-25cG or CM-5/CR-5 and only with SpectraMagic NX2 license.
- *7: Available only when using CM-17d/16d, CM-26dG/26d/25d/23d, CM-25cG or CM-M6.
- *8: WLAN settings possible when optional WLAN/Bluetooth® Module is installed.
- *9: Not available in some countries.
- *10: Instruments with new firmware versions only. Instruments with old firmware versions may not be supported. Click here for firmware versions of compatible instruments. ↓

<https://www.konicaminolta.com/instruments/download/software/color/cmct/index.html>



Instrument Check App

<Compatible Instruments>

Measuring instruments	CM-3700A Plus, CM-3700A*1, CM-36dG/CM-36d/CM-36dGV, CF-300*2, CM-17d/CM-16d, CM-26dG/CM-26d/CM-25d/CM-23d*2, CM-25cG, CM-700d*1/CM-600d*1
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<Main features>

Check items*3	Repeatability, Reproducibility, Light Source output, Repeatability (Gloss), Reproducibility (Gloss)
Features	[Measurement] Checking of instruments condition [Data] Exporting results of check to instruments [Graphs] Check results shown on trend graphs, lists, and calendar [Others] Saving/printing of check report
External I/O	Importing/exporting of data files in original format Exporting report files in PDF format
Display languages	Japanese, English, German, French, Spanish, Italian, Portuguese, Chinese (Simplified and Traditional), Turkish, Russian, Polish, Korean

- *1: Instruments with new firmware versions only. Instruments with old firmware versions may not be supported. Firmware version of compatible instruments conform to Color QC App.
- *2: Not available in some countries.
- *3: Items available depend on the instrument model.
(Gloss) items available only for CM-36dG, CM-36dGV, CM-26dG, and CM-25cG.

<Compatible Instruments>

Measuring instruments	Spectrophotometer	CM-3700APlus, CM-3700A*6, CM-36dG/CM-36d/CM-36dGV, CF-300*4, CM-5*6, CM-3600A*6/CM-3610A*6, CM-17d/CM-16d, CM-26dG/CM-26d/CM-25d/CM-23d*4, CM-M6, CM-25cG, CM-700d*6/CM-600d*6, CM-512m3A*6, CM-2500c*6, CM-2600d*6/CM-2500d*6
	Chroma Meter	CR-5*4*6, CR-400*6/CR-410*6, DP-400*6

<Main features>

Observer	2°, 10°	
Color system/ color space	Pro, Lite	L*a*b*, L*C*h, Lab99, LCh99, Lab99o, LCh99o, Hunter Lab, and their color differences; Munsell (C, D65)
	Pro only	XYZ, Xy, u'v', u*v*, and their color differences
Index	Pro, Lite	Ml; GU and difference (CM-25cG, CM-26dG, CM-36dG/CM-36dGV); Opacity (ISO 2471, TAPPI T425 89% white plate)*1 CM-5/CR-5 only: Gardner, Iodine Color Number, Hazen/APHA, European Pharmacopoeia, US Pharmacopoeia
	Pro only	WI (CIE1982, ASTM E313-73, Hunter, ASTM E313-98, BERGER, TAUBE, STENSBY, Ganz); YI (ASTM D1925-70, ASTM E313-73, ASTM E313-98, DIN 6167); B (ASTM E313-73); Tint (CIE 1982, ASTM E313-98, Ganz); Standard Depth (ISO 105.A06); Brightness (TAPPI T452, ISO 2470); Density (Status A, Status T); Dominant Wavelength; Excitation Purity; 555; RxRyRz; Grey Scale/Grey Scale Rating (ISO 105.A05); K/S Strength (Apparent, (ΔE*ab, ΔL*, ΔC*, ΔH*, Δa*, Δb*, Maximum absorption, Total wavelength, User wavelength); Strength; Pseudo strength; Staining degree/degree grade (ISO 105.A04E); NC#; NC#Grade; Ns; Ns Grade; Signal color index; 8° gloss (for simultaneous SCI/SCE measurements only); FF (CM-M6); User equation; Haze (ASTM D1003-97)*1; Blackness (My) (ISO18314-3/DIN55979); Jetness (Mc) (ISO18314-3); Undertone (dM) (ISO18314-3), and their differences
Color difference formula	Pro, Lite	ΔE*ab (CIE1976); ΔE00 (CIE DE2000) and each component of lightness, saturation and hue; ΔE99 (DIN99), ΔE(Hunter); ΔE*94 (CIE 1994) and each component of lightness, saturation and hue; CMC and each component of lightness, saturation and hue; ΔE99o and each component of lightness, saturation and hue
	Pro only	ΔE*94 (Special)*5 and each component of lightness, saturation and hue; ΔEc (degree) (DIN 6175-2); ΔEp (degree) (DIN 6175-2); FMC-2; NBS 100; NBS 200; Audi2000
Illuminant	Pro, Lite	A, C, D50, D65, F2, F11
	Pro only	D55, D75, F6, F7, F8, F10, F12, U50, ID50, ID65, LED-B1, LED-B2, LED-B3, LED-B4, LED-B5, LED-BH1, LED-RGB1, LED-V1, LED-V2, User illuminant (100 maximum)
Graph and canvas objects	Pro, Lite	Spectral reflectance (transmittance) and its difference; L*a*b* absolute color distribution; Hunter Lab absolute color distribution; ΔL*a*b* color difference distribution; Hunter ΔLab; xy chromaticity diagram; Trend graph; Histogram; Multichannel graph; 2D user-specified axis graph Text labels, Numerical labels, Images, Data lists, Statistics, Pseudo-color patches
	Pro only	K/S and its difference; Absorbance and its difference
Features	Pro, Lite	[Measurement] Viewfinder (CM-3700A Plus/CM-3700A-U Plus, CM-17d, CM-36d series, CF-300*2); Manual averaging measurement; Trigger measurement (excluding CF-300, CM-3700A, CM-3700A, CM-3600A and CM-3610A) [Data] Categorize by tags; Attaching images/comments; Evaluation results-pass/fail judgment; Import/export; Stored data reading/target data writing (excluding CM-3700A Plus/CM-3700A-U Plus, CM-3700A, CM-3600A, CM-3610A, CM-36d series and CF-300) [Other] Shortcut key settings; Display template creation/output/application; Report printing; Printing to serial printer; Sound (on measurement, pass judgment, fail judgment)
	Pro only	[Calibration] User calibration, UV adjustment [Measurement] Interval measurement [Security] User management/operation restrictions [Data] Data search under specified conditions; User illuminant source registration (manual input, from file, from CL-500A); Automatic selection of standards; Auto tolerance; Classification by user defined information [Other] QC template creation/editing/output; Macro function; External software startup; Job settings (CM-17d/CM-16d, CM-26dG/CM-26d/CM-25d, CM-25cG)
Number of files and data	Number of files that can be opened simultaneously: 10 Number of data that can be stored in a file: 10,000 (total of target data and measurement data)	
Supported file formats	NX2 (.mesx2, .mtpx2), NX (.mtp, .mes, .mea; reading only); Other (.csv (output only), .cxf); SpectraMagic DX files (.mesx) need to be converted to .mes with a conversion tool NX2 QC template (.qctp; Lite: application only)	
Display languages	Japanese, English, German, French, Spanish, Italian, Portuguese, Chinese (Simplified and Traditional), Turkish, Russian, Polish, Korean	

<Minimum Computing Requirements*3>

OS: Windows® 10 Pro 64 bit Version 1903 or higher/Windows® 11 Pro
 CPU: Intel® Core i5 2.7GHz or higher processor (recommended)
 Memory: 2GB or more(4GB or more recommended)
 Storage: 10GB or more
 USB port: Required for dongle version
 Connection to external network: Required for activation

- *1: For opacity (ISO 2471, TAPPI T425 89% white plate) and haze (ASTM D1003-97) measurements, software measurement procedure and calculations follow the corresponding standard. Whether the geometric requirements of the corresponding standard are met depends on the instrument used.
- *2: Requires optional accessories.
- *3: The hardware of the computer system must meet or exceed the greater of the recommended system requirements for the compatible OS being used or the above specifications
- *4: Not available in some countries.
- *5: When comparing two colors, please use ΔE*94(Special) if you do not want to set one as the standard.
- *6: Instruments with new firmware versions only. Instruments with old firmware versions may not be supported. Click here for firmware versions of compatible instruments. ↓
<https://www.konicaminolta.com/instruments/download/software/color/smx2/index.html>



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- The specifications given here are subject to change without prior notice.
- Displays shown are for illustration purposes only.

SAFETY PRECAUTIONS

For correct use and for your safety, be sure to read the instruction manual before using the instrument.

- Always connect the instrument to the specified power supply voltage. Improper connection may cause a fire or electric shock.

ISO Certifications of KONICA MINOLTA, Inc., Sakai Site

JQA-QMA15888
Design, development, manufacture/
manufacturing management, calibration, and
service of measuring instruments

JQA-E-80027
Design, development,
manufacture, service and sales
of measuring instruments

KONICA MINOLTA, INC.	Osaka, Japan				
Konica Minolta Sensing Americas, Inc.	New Jersey, U.S.A.	PHONE: (888)473-2656 (in USA), +1(201)236-4300 (outside USA)	FAX: +1(201)785-2480	E-Mail: service.us@konicaminolta.com	
Konica Minolta Sensing Europe B.V.	European HQ/ BENELUX German Office French Office UK Office Italian Office Swiss Office Nordic Office Polish Office	Nieuwegein, Netherlands München, Germany Roissy CDG Cedex, France Warrington, United Kingdom Cinisello Balsamo, Italy Dietikon, Switzerland VÄSTRA FRÖLUNDA, Sweden Wrocław, Poland	PHONE: +31(0)30 248-1193 PHONE: +49(0)89 4357 156 0 PHONE: +33(0)1 80 11 10 70 PHONE: +44(0)1925 467300 PHONE: +39 02849488.00 PHONE: +41(0)43 322-9800 PHONE: +46(0)31 7099464 PHONE: +48(0)71 73452-11	E-Mail: info.benelux@seu.konicaminolta.eu E-Mail: info.germany@seu.konicaminolta.eu E-Mail: info.france@seu.konicaminolta.eu E-Mail: info.uk@seu.konicaminolta.eu E-Mail: info.italy@seu.konicaminolta.eu E-Mail: info.switzerland@seu.konicaminolta.eu E-Mail: info.nordic@seu.konicaminolta.eu E-Mail: info.poland@seu.konicaminolta.eu	
Konica Minolta (CHINA) Investment Ltd.	SE Sales Division Beijing Office Guangzhou Office Chongqing Office	Shanghai, China Beijing, China Guangzhou, China Chongqing, China	PHONE: +86-(0)21-6057-1089 PHONE: +86-(0)10-8522 1551 PHONE: +86-(0)20-3826 4220 PHONE: +86-(0)23-6773 4988 +86-(0)23-6794 9512	E-Mail: hcn_sensing@gcp.konicaminolta.com E-Mail: hcn_sensing@gcp.konicaminolta.com E-Mail: hcn_sensing@gcp.konicaminolta.com E-Mail: hcn_sensing@gcp.konicaminolta.com	
	Qingdao Office Wuhan Office Shenzhen Office Xiamen Office	Shandong, China Hubei, China Shenzhen, China Xiamen, China	PHONE: +86-(0)532-8079 1871 PHONE: +86-(0)27-6885 0586 PHONE: +86-(0)755-2868 7535 PHONE: +86-(0)592-7107 399	E-Mail: hcn_sensing@gcp.konicaminolta.com E-Mail: hcn_sensing@gcp.konicaminolta.com E-Mail: hcn_sensing@gcp.konicaminolta.com E-Mail: hcn_sensing@gcp.konicaminolta.com	
Konica Minolta Sensing Singapore Pte. Ltd.	Singapore	PHONE: +65 6563-5533		E-Mail: ssg@gcp.konicaminolta.com	
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