



KONICA MINOLTA

# Spectrophotometer CM-700d/600d

Compact, lightweight, portable spectrophotometer with wireless communication and color LCD screen

## Field-oriented spectrophotometer for reliable color measurement

Unprecedented ease of handling and easy operation with color LCD screen



The Standard in Measuring Color & Light

Giving Shape to Ideas

# CM-700d/600d: Compact, lightweight spectrophotometers with wireless communication and color LCD screen, offering excellent portability and operability!

We are surrounded by abundant colors. In the automotive, home appliance, portable phone, textile and clothing industries the variation in colors are increasing in order to differentiate products. In the food industry, the importance of color management continues to rise. Under such circumstances, the applications of color-measuring instruments have been rapidly spreading from R&D or QC departments to production sites, as well as from product manufacturers to parts/material suppliers. The CM-700d/600d is a spectrophotometer that has achieved a much more compact and lightweight body while retaining the sophisticated functions of Konica Minolta's conventional models by utilizing our original optical design and signal processing technologies. It allows easy and accurate color measurement in various sites and occasions. The easy-to-read color LCD screen allows intuitive recognition of measurement results. Experience the ease for yourself!

## Perfect design to fit in your hand

- Ergonomic, compact and lightweight
- Vertical format for easy positioning
- Excellent portability for production sites



## Measure anywhere!

The tapered measuring head allows for easy checking of measurement positions. The upright design ensures easy measurement, even on concave surfaces. The measuring aperture is selectable between ø8 mm and ø3 mm according to the sample size (CM-700d only).



## Bluetooth® compatible!

Data can be sent to a PC or a mobile printer via Bluetooth® wireless communication. (USB communication with a PC is also possible.)



## Automatic switching for SCI and SCE measurement

## Large memory capacity

No. of storable data sets  
Target data: 1,000 sets  
Measurement data: 4,000 sets

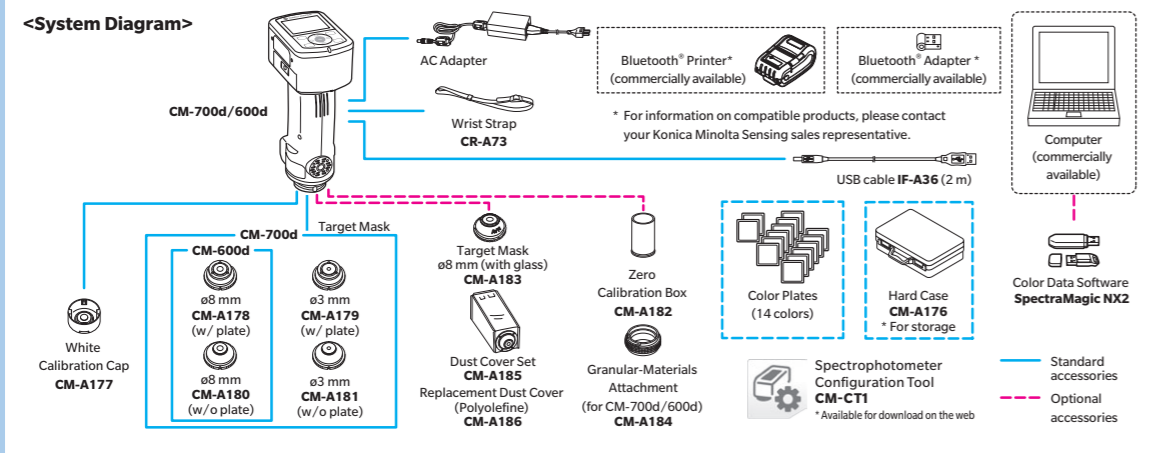
## Standard accessories



## Optional accessories



## <System Diagram>



## Easy to operate!

Dedicated buttons for frequently used operations make it easy to call up menus or target colors. The menu-driven display allows anyone to operate the instrument intuitively.

## Easy-to-read color LCD screen!

Abundant information is displayed in color for easy understanding. Measured colors can also be reproduced as color patches on the color LCD, which is useful to check the level of color difference or to search for colors.



Spectral graph

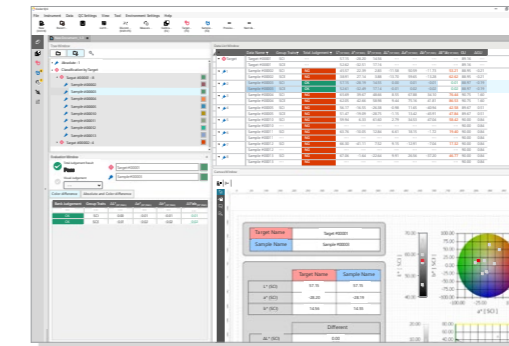
Pseudocolor

Color difference graph



## Color Data Software SpectraMagic NX2

SpectraMagic NX2 is color management software that gives users a customizable screen display and a wide range of functions for operating and configuring their spectrophotometers or Chroma Meter from a computer. Users can display data lists and create color difference graphs and spectral graphs to assist in color management that requires judgment based on numerous values and indicators.



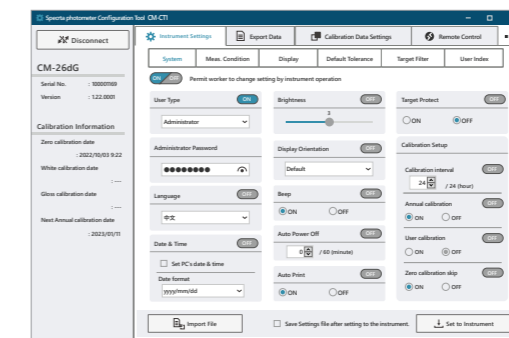
You can see the details in the catalog from the following 2D code. ↓

[SpectraMagic NX2 web Site](#)

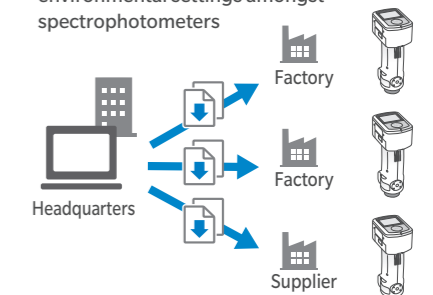


## Quick and easy-to-use Spectrophotometer Configuration Tool CM-CT1 Ver.1.4 or later

The CM-CT1 gives manufacturers the means for easily and quickly setting up the CM-700d/600d 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.



Easily unify measurement conditions and environmental settings amongst spectrophotometers



- CPU: 2.0 GHz equivalent or faster
- Memory: 2 GB or more
- Hard disk: 10 GB or more of free space for installation
- Other: USB port (For connecting to spectrophotometers)
- Windows® is a trademark or registered trademark of Microsoft Corporation in the USA and other countries.

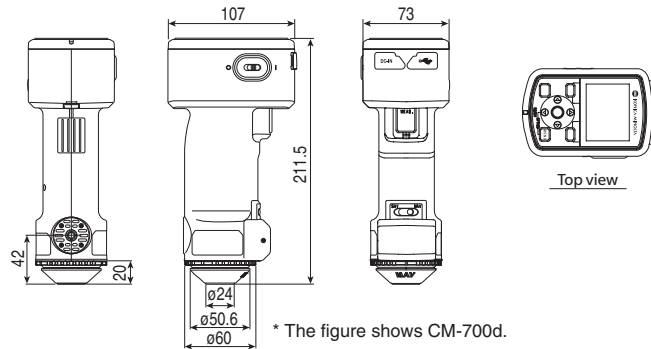
# Main specifications

Model	CM-700d	CM-600d
Illumination/viewing system	di: 8°, de: 8° (diffused illumination, 8-degree viewing angle), SCI (specular component included)/SCE (specular component excluded) selectable with automatic switching (Conforms to CIE No.15(2004), ISO 7724/1, DIN 5033 Teil 7, ASTM E1164(SCI), and JIS Z 8722 condition "c")	
Integrating sphere size	ø40 mm	
Detector	Silicon photodiode array (dual 36-element)	
Spectral separation device	Diffraction grating	
Wavelength range	400 nm to 700 nm	
Wavelength pitch	10 nm	
Half bandwidth	Approx. 10 nm	
Reflectance range	0 to 175%, Display resolution: 0.01%	
Light source	Pulsed xenon lamp (with UV cut filter)	
Measurement time	Approx. 1 second	
Minimum measurement interval	Approx. 2 seconds (in SCI or SCE mode)	
Battery performance	With alkaline dry batteries: Approx. 2,000 measurements * Stand-alone continuous measurement fixed to either SCI or SCE mode at 10-second intervals at 23°C	
Measurement/illumination area	MAV: ø8 mm/ ø11 mm SAV: ø3 mm/ ø6 mm * Changeable by replacing target mask and selecting lens position	MAV: ø8 mm/ ø11 mm only
Repeatability	Spectral reflectance: Standard deviation within 0.1%, Chromaticity value: Standard deviation within ΔE* <sub>ab</sub> 0.04 (When a white calibration plate is measured 30 times at 10-second intervals after white calibration)	
Inter-instrument agreement	Within ΔE* <sub>ab</sub> 0.2 (MAV/SCI) * Based on 12 BCRA Series II color tiles compared to values measured with a master body at 23°C	
No. of averaging measurements	1 to 10 (Auto averaging), 1 to 30 (Manual averaging)	
Display	2.36-inch TFT color LCD	
Interface	USB1.1; Bluetooth® standard version 2.1+EDR*	
Observer	2° or 10° Standard Observer	
Illuminant	A, C, D <sub>50</sub> , D <sub>65</sub> , F <sub>2</sub> , F <sub>6</sub> , F <sub>7</sub> , F <sub>8</sub> , F <sub>10</sub> , F <sub>11</sub> , F <sub>12</sub> (Simultaneous evaluation with two light sources possible)	
Displayed data	Spectral values/graph, colorimetric values, color difference values/graph, PASS/FAIL result, pseudocolor, color assessment	
Colorimetric data	L*a*b*, L*C*h, Hunter Lab, X <sub>xy</sub> , XYZ, Munsell, and color difference in these spaces (except for Munsell)	
Index	MI, WI (ASTM E313-73/E313-96), YI (ASTM E313-73/ASTM D1925), ISO Brightness, 8° gloss value	
Color difference formulas	ΔE* <sub>ab</sub> (CIE1976), ΔE* <sub>94</sub> (CIE1994), ΔE <sub>00</sub> (CIE DE2000), CMC (l: c), Hunter ΔE	
Data memory	Measurement data: 4,000 sets/Target color difference data: 1,000 sets	
Pass/Fail judgment	Tolerances can be set to colorimetric values (excluding Munsell), color difference values, color values (excluding 8° gloss value) respectively	
Power	Special AC Adapter; 4 AA-size alkaline dry batteries or nickel-metal-hydride rechargeable batteries	
Size (W x H x D)	73 x 211.5 x 107 mm	
Weight	Approx. 550 g (without white calibration cap and batteries)	
Operation temperature/ humidity range	5 to 40°C, relative humidity 80% or less (at 35°C) with no condensation	
Storage temperature/ humidity range	0 to 45°C, relative humidity 80% or less (at 35°C) with no condensation	

\* Applicable Bluetooth® profile: Serial Port Profile, Output: Bluetooth® Power Class 1 The communication distance may vary depending on the obstacles and radio wave conditions between the devices. Successful wireless communication is not guaranteed with all Bluetooth®-ready equipment.

• Bluetooth® is a registered trademark of Bluetooth SIG, Inc. and is used under license agreement.

## Dimensions (Units: mm)



**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.
- Be sure to use the specified batteries. Using improper batteries may cause a fire or electric shock.

- The specifications and appearance shown herein are subject to change without notice.
- If you have any questions about specifications, please contact your Konica Minolta representative.
- KONICA MINOLTA, the Konica Minolta logo and symbol mark, "Giving Shape to Ideas" and SpectraMagic are registered trademarks or trademarks of Konica Minolta, Inc.
- Displays shown are for illustration purposes only.

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

<b>KONICA MINOLTA, INC.</b>	Osaka, Japan			
<b>Konica Minolta Sensing Americas, Inc.</b>	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
<b>Konica Minolta Sensing Europe B.V.</b>	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
<b>Konica Minolta (CHINA) Investment Ltd.</b>	SE Sales Division Beijing Office Guangzhou Office Chongqing Office Qingdao Office Wuhan Office Shenzhen Office Xi'an Office Xiamen Office	Shanghai, China Beijing, China Guangzhou, China Chongqing, China Shandong, China Hubei, China Shenzhen, China Xi'an, China Xiamen, 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 PHONE: +86-(0)532-8079 1871 PHONE: +86-(0)27-6885 0586 PHONE: +86-(0)755-2868 7535	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 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 E-Mail: hcn_sensing@gcp.konicaminolta.com
<b>Konica Minolta Sensing Singapore Pte. Ltd.</b>	Singapore	PHONE: +65 6563-5533		E-Mail: se-service.sg@konicaminolta.com
<b>Konica Minolta Sensing Korea Co., Ltd.</b>	Korean HQ Cheonan Office	Goyang-si, Korea Cheonan-si, Korea	PHONE: +82(0)2-523-9726 PHONE: +82(0)41-556-9726	E-Mail: se.korea@konicaminolta.com E-Mail: se.korea@konicaminolta.com

Addresses and telephone/fax numbers and e-mail address are subject to change without notice.  
For the latest contact information, please refer to KONICA MINOLTA Worldwide Offices web page:

<https://konicaminolta.com/instruments/network>