

## 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

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

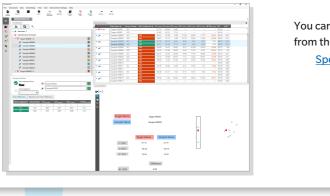
We are surrounded by abundant colors. In the automotive, home appliance, portable phone, textile and clothing industries the variation in colors are increasing in order to differentiate products. In the food industry, the importance of color management continues to rise. Under such circumstances, the 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!



Spectral graph

Easy to operate!

Pseudocolo



### 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.

X Disconnect	🌣 Instrument Settings 📄 Exp		ort Data	Data d		Calibration Dat	
M-26dG	System	Meas.	Condition	Displa	y	Default To	olerar
Serial No. : 10000769	<b>N</b>	rmit works	r to change s	etting by inst	rument o	operation	
Version : 1.22.0001	User Type			Bright	ness		0
alibration Information	Administrate	-		-			
Zero calibration date : 2022/10/03 9:22	Administrator Password			Display	ition	0	
White calibration date	*****	••	۲	Def	fault		
Gloss calibration date	Language		0#	Beep			0
: Next Annual calibration date	¢χ		~	• cr	N	Ooff	
: 2023/01/11	Date & Time		0#	Auto P	ower Of		0
	Set PC's date & time					/ 60 (minute)	
	Date format	~	Auto P		Ooff	0	
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	B <sub>2</sub> m	oort File		□ Sav	e Setting	s file after set	ting 1

Other: USB port (For connecting to spectrophotometers)

#### **Measure anywhere!**

Standard accessories

ø8 mm

(w/o plate)

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).





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

Perfect design to fit in your hand

· Ergonomic, compact and lightweight

· Excellent portability for production sites

· Vertical format for easy positioning



Automatic switching for SCI and SCE measurement

.arge memory capacity No. of storable data sets

Target data: 1,000 sets Measurement data: 4,000 sets



ø3 mm

(w/o plate)

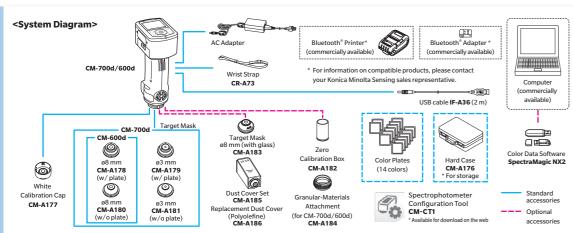
ø3 mm

(w/ plate)

**Dust Cover Set** 



White



ø8 mm

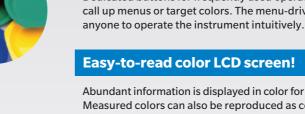
(w/plate)

Zero Calibration Box











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

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



Color difference grap

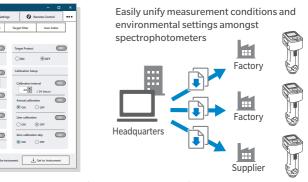


## Color Data Software SpectraMagic NX2

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.  $\downarrow$ SpectraMagic NX2 web Site





Spectrophotometer Configuration Tool CM-CT1 ●OS: Windows® 10 Pro 64 bit / Windows® 11 Pro • CPU: 2.0 GHz equivalent or faster • Memory: 2 GB or more • Hard disk: 10 GB or more of free space for installation

• Windows® is a trademark or registered trademark of Microsoft Corporation in the USA and other countries.

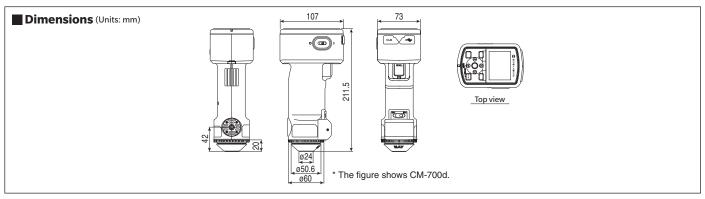
#### **Main specifications**

Model	CM-700d	CM-600d				
Illumination/	di: 8°, de: 8° (diffused illumination, 8-degree viewing angle), SCI (specular component included)/SCE (specular component excluded)					
viewing system	selectable with automatic switching (Conforms to CIE No. 15(2004), ISO 77	724/1, 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)					
Datta w	With alkaline dry batteries: Approx. 2,000 measurements					
Battery performance	* Stand-alone continuous measurement fixed to either SCI or SCE mode at 10-second intervals at 23°C					
Measurement/	MAV: ø8 mm/ ø11 mm SAV: ø3 mm/ ø6 mm	MAV: ø8 mm/ ø11 mm only				
illumination area	* Changeable by replacing target mask and selecting lens position					
Repeatability	Spectral reflectance: Standard deviation within 0.1%, Chromaticity value: Standard deviation within $\Delta E^*_{ab}$ 0.04					
Repeatability	(When a white calibration plate is measured 30 times at 10-second	intervals after white calibration)				
Inter-instrument agreement	Within $\Delta E^*_{ab}$ 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, D50, D65, F2, F6, F7, F8, F10, F11, F12 (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, Yxy, 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*ab (CIE1976), ΔE*94 (CIE1994), ΔE00 (CIE DE2000), CMC (I: 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 condensa	tion				
Storage temperature/ humidity range	0 to 45°C, relative humidity 80% or less (at 35°C) with no condensa	tion				

\* 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.



#### SAFETY PRECAUTIONS

- For correct use and for your safety, be sure to read the instruction manual
- are subject to change without notice. If you have any questions about specifications, 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.
- 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.

The specifications and appearance shown herein



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