

Konica Minolta's industrial instruments

Safety Precautions



KONICA MINOLTA

Safety Symbols

The following symbols are used in this manual to prevent accidents which may occur as result of incorrect use of the instrument.



Denotes a sentence regarding a safety warning or note.
Read the sentence carefully to ensure safe and correct use.



Denotes a prohibited operation.
The operation must never be performed.



Denotes an instruction.
The instruction must be strictly adhered to.



Denotes a prohibited operation.
Never disassemble the instrument.



Denotes an instruction.
To turn the power off, disconnect the AC adapter from the AC outlet or disconnect the USB cable from the connected device.



Denotes an instruction.
Connect the grounding terminal as instructed.



Denotes an instruction regarding LEDs.
Read the instruction carefully to ensure safe and correct use.

Safety Precautions

To ensure correct use of Konica Minolta's industrial instruments, read the following points carefully and adhere to them. For appropriate points for your instrument, refer to the table at the end of this book.

After you have read this book and the manual for your instrument, keep them in a safe place where they can be referred to anytime a question arises.

 WARNING (Failure to adhere to the following points may result in death or serious injury.)	
W.B1	 Do not use the instrument in places where flammable or combustible gases (gasoline etc.) are present. Doing so may cause a fire.
W.C1 ^{*1}	 Always use the supplied power cord, and connect it to a 100 to 240 V ~ (50/60 Hz) AC outlet of the rated voltage and frequency. If a power cord other than those specified by KONICA MINOLTA is used, or if you are connected to an unsupported voltage, it may result in damage to the instrument, fire, or electric shock.
W.C2 ^{*1}	 Do not disassemble or modify the instrument. Doing so may cause a fire or electric shock.
W.C3 ^{*1}	 Take special care not to allow liquid or metal objects to enter the instrument. Doing so may cause a fire or electric shock. Should liquid or metal objects enter the instrument, turn the power OFF immediately, disconnect the power cord from the AC outlet (or remove the batteries if they are being used), and contact the nearest KONICA MINOLTA-authorized service facility.
W.C4 ^{*1}	 Do not use the instrument with dirt accumulated inside the air vents. Doing so may cause a fire. Contact the nearest KONICA MINOLTA-authorized service facility regarding routine service checks.
W.C5 ^{*1}	 Do not forcibly bend, twist or pull the power cord. Do not place heavy objects on, or damage or modify the power cord. Doing so may damage the power cord and cause fire or electric shock.
W.C6 ^{*1}	 The instrument should not be operated if it is damaged, or if smoke or odd smells occur. Doing so may result in a fire. In such situations, turn the power OFF immediately, disconnect the power cord from the AC outlet, and contact the nearest KONICA MINOLTA-authorized service facility.
W.C7 ^{*1}	 Always disconnect the power cord by holding the power plug. Pulling the power cord itself may damage it and cause fire or electric shock.
W.C8 ^{*1}	 Do not insert or disconnect the AC plug with wet hands. Doing so may cause electric shock.
W.C9 ^{*1}	 If the instrument will not be used for a long time, disconnect the power cord from the AC outlet. Accumulated dirt or water on the prongs of the power cord plug may cause a fire and should be removed.
W.C10 ^{*1}	 Insert the power plug fully and securely. Incomplete insertion may cause fire or electric shock.

W.D1		Always use the AC adapter supplied as a standard accessory or the optional AC adapter, and connect it to an AC outlet of the rated voltage and frequency. If an AC adapter other than those specified by KONICA MINOLTA is used, it may result in damage to the instrument or AC adapter, fire or electric shock.
W.D2		If the instrument will not be used for a long time, disconnect the AC adapter from the AC outlet. Accumulated dirt or water on the prongs of the AC adapter's plug may cause a fire and should be removed.
W.D3		Do not insert or disconnect the AC adapter with wet hands. Doing so may cause electric shock.
W.D4		Do not disassemble or modify the instrument or the AC adapter. Doing so may cause a fire or electric shock.
W.D5		The instrument should not be operated if it is damaged or the AC adapter is damaged, or if smoke or odd smells occur. Doing so may result in a fire. In such situations, turn the power OFF immediately, disconnect the AC adapter from the AC outlet (or remove the batteries if they are being used) and contact the nearest KONICA MINOLTA-authorized service facility.
W.D6		Take special care not to allow liquid or metal objects to enter the instrument. Doing so may cause a fire or electric shock. Should liquid or metal objects enter the instrument, turn the power OFF immediately, disconnect the AC adapter from the AC outlet (or remove the batteries if they are being used), and contact the nearest KONICA MINOLTA-authorized service facility.
W.D7		Do not forcibly bend, twist or pull the power cord. Do not place heavy objects on, or damage or modify the power cord. Doing so may damage the power cord and cause fire or electric shock.
W.D8		Always disconnect the power cord by holding the power plug. Pulling the power cord itself may damage it and cause fire or electric shock.
W.D9		Do not use the instrument with dirt accumulated inside the air vents. Doing so may cause a fire. Contact the nearest KONICA MINOLTA-authorized service facility regarding routine service checks.
W.D10		Insert the power plug fully and securely. Incomplete insertion may cause fire or electric shock.
W.E1		Do not dispose of batteries in fire, short their terminals, apply heat to them, or disassemble them. Also, do not recharge them (if they are not chargeable). Doing so may cause explosion or heat generation, resulting in fire or injury.
W.E2		Do not disassemble or modify the instrument. Doing so may cause a fire or electric shock.
W.E3		Should battery fluid leak and get in your eyes, do not rub your eyes. Wash them in clean water and immediately seek medical advice. If battery fluid spills onto your hands or clothing wash it away with water. Discontinue use of products in which battery fluid leakage has occurred.
W.E4		(Nickel-metal-hydride) Batteries must be charged with the dedicated charger. Charging the batteries under conditions or with chargers other than those specified may cause fluid leak, heat, or a fire.

W.E5	 <p>Should this instrument or AC adapter be damaged or smoke or odd smell be generated, do not keep using such instrument or AC adapter without correction. Doing so may cause fire. In such situations, switch power off immediately, unplug AC adapter (or remove batteries in using ones) and contact the nearest KONICA MINOLTA-authorized service facility.</p>
W.E6	 <p>Dispose of batteries used in the instrument correctly. Disposing of batteries incorrectly may result in heat generation or cause batteries to catch fire due to short circuiting. This may result in a fire, injury, or burns. Disposal methods for lithium batteries may vary according to where you live. Dispose of batteries in accordance with local regulations or through a registered waste disposal agency.</p>
W.E7	 <p>Do not touch or hold the batteries with wet hands. Doing so may cause electric shock or failure.</p>
W.E8	 <p>Do not use, charge, or store the lithium-ion battery in a high-temperature environment. Doing so may cause the batteries to overheat, catch fire, or rupture.</p>
W.E9	 <p>Do not throw or submit the lithium-ion battery to strong impacts such as from a fall from a high location. If the lithium-ion battery is deformed or if the built-in protection system is broken, an abnormal current or voltage may be applied to the battery during charging, which may cause the batteries to overheat, rupture, or catch fire.</p>
W.E10	 <p>Do not step on the lithium-ion battery or pierce with a nail or hit with a hammer. If the lithium-ion battery is deformed or if the protection system is damaged, the battery may overheat, rupture, or catch fire.</p>
W.E11	 <p>Should an unusual odor, heat, discoloration, deformation, or other previously unnoticed abnormality occur during use, charging, or storage, remove the lithium-ion battery from the instrument or charger and discontinue use. Continued use of a lithium-ion battery in this condition may cause the lithium-ion batteries to overheat, rupture, or catch fire.</p>
W.E12	 <p>If the lithium-ion battery is found to be leaking or emitting an unusual odor, keep the battery away from any open flames. The electrolytic solution from the battery may catch fire, causing rupture or fire.</p>
W.H1	 <p>Do not place a lens, mirror or optical element in the passage of the UV-LED. Doing so may converge the laser beam, resulting in damage to your eyes, burns or fire. To prevent the above accidents, make sure that a wall or similar which can block the LED is located behind the object.</p>
W.H2	 <p>Never stare into the LED emitting window. Doing so may damage your eyes.</p>
W.I1	 <p>Do not look directly at the lamp. The lamp is extremely bright and emits ultraviolet rays. Doing so may injure the eyes.</p>
W.J1	 <p>Do not look at sun or intense light through the finder of this instrument. This may result in loss of sight.</p>
W.K1	 <p>Be sure to turn the instrument OFF in areas where use is prohibited, such as in airplanes or hospitals. Using the instrument in such areas may affect the electronics and medical equipment, which may cause an accident.</p>



CAUTION

(Failure to adhere to the following points may result in injury or damage to the instrument or other property.)

C.21		Always connect the power plug to an outlet with a protective earth terminal. Be sure to also connect peripheral equipment (including controlling computers) to an outlet with protective earth terminals. Not doing so may result in electric shock due to short circuit.
C.41		Make sure that the AC outlet is located near the instrument and that the power cord's plug can be connected to and disconnected from the AC outlet easily.
C.51		Do not use batteries other than those specified by KONICA MINOLTA. Never mix old and new batteries or batteries of different types. When installing batteries in the instrument, ensure that they are correctly orientated according to the (+) and (-) marks. Failure to adhere to these instructions may cause batteries to explode or leak electrolyte, resulting in fire, injury or air pollution.
C.52		Do not use wet batteries. Do not use the instrument while water remains in the battery compartment. This may cause the batteries to explode or produce heat, leading to a fire or injury.
C.71		Do not place the instrument on an unstable or sloping surface. Doing so may result in its dropping or overturning, causing injury. Be careful not to drop the instrument when carrying it.
C.81*3		Take care not to get your hands caught in parts of the instrument that open and close. Doing so may result in injury.
C.91		Do not perform measurement with the specimen measuring port directed towards your face. Doing so may damage your eyes.
C.101		Do not move around while looking through the finder. You might trip or fall.
C.131*2		Take special care in handling the optional accessories with glass parts. The optional accessories may break, resulting in injury.
C.141		Do not block the vent. Doing so may cause a fire.
C.151		When cleaning the instrument, unplug the power plug from the outlet. Not doing so may cause electric shock.

*1 The power cord is described as a USB cable with the MYIRO-1 and as a cable with the CA-410.

*2 Optional accessories will vary by model.

CM-25d/26d/26dG: Target mask with glass. At this time, be sure to also use the wrist strap correctly.

CM-36d/36dG/36dGV: Glass cell

CR-20/BC-10 Plus: Target mask

CS-2000/2000A: ND filter, closeup lens

CS-200: Closeup lens

LS-150/LS-160/CS-150/CS-160: Closeup lens

*3 Do not open the cover on the FD-9 during scanning. If the cover is opened during scanning, your hand may become caught in the instrument, resulting in injury.

No.	SPECTRO-PHOTOMETER CM-3700A CM-3600A CM-3610A CM-5 CHROMA METER CR-5	SPECTRO-PHOTOMETER CM-3630	SPECTRO-PHOTOMETER CM-2600d/ 2500d CM-2500c CM-2300d	SPECTRO-PHOTOMETER CM-M6	SPECTRO-PHOTOMETER CM-25cG	SPECTRO-PHOTOMETER CM-25d/ 26d/ 26dG	SPECTRO-PHOTOMETER CM-512m3A	SPECTRO-PHOTOMETER CM-700d/ 600d CHROMA METER CR-400/ 410	SPECTRO-PHOTOMETER CM-3630A	SPECTRO-PHOTOMETER CF-300	SPECTRO-PHOTOMETER CM-23d
W.B1	○	○	○	○	○	○	○	○	○	○	○
W.C1											
W.C2											
W.C3											
W.C4											
W.C5											
W.C6											
W.C7											
W.C8											
W.C9											
W.C10											
W.D1	○	○	○	○	○	○	○	○	○	○	○
W.D2	○	○	○	○	○	○	○	○	○	○	○
W.D3	○	○	○	○	○	○	○	○	○	○	○
W.D4	○	○	○	○	○	○	○	○	○	○	○
W.D5	○	○	○	○	○	○	○	○	○	○	○
W.D6	○	○	○	○	○	○	○	○	○	○	○
W.D7	○			○	○	○			○	○	○
W.D8	○			○					○	○	
W.D9											
W.D10	○			○	○	○			○	○	○
W.E1			○	○	○	○	○	○			○
W.E2											
W.E3				○	○	○	○				○
W.E4				○	○	○					○
W.E5					○	○	○				
W.E6			○	○	○	○	○				○
W.E7				○	○	○					○
W.E8				○	○	○					○
W.E9				○	○	○					○
W.E10				○	○	○					○
W.E11				○	○	○					○
W.E12				○	○	○					○
W.H1											
W.H2											
W.I1				○	○	○			○	○	○
W.J1											
W.K1				○		○					
C.21											
C.41	○		○	○	○	○	○	○	○	○	
C.51			○	○	○	○	○	○			
C.52				○	○	○					
C.71	○	○	○	○	○	○	○	○	○	○	○
C.81	○	○		○	○	○			○	○	○
C.91	○	○	○	○	○	○	○	○	○	○	○
C.101										○	
C.131						○					
C.141											
C.151	○			○	○	○			○	○	○

No.	SPECTRO-PHOTOMETER CM-36d/ 36dGV	COLOR READER CR-20 BAKING METER BC-10 Plus	COLOR READER CR-10 Plus	Spectro- photometer MYIRO-1	Auto Scan Spectro- photometer MYIRO-9	Auto Scan Spectro- photometer FD-9	CHLOROPHYLL- METER SPAD-502Plus	SPECTRO- DENSITOMETER FD-7 FD-5	2D Color Analyzer CA-2500	Display Color Analyzer CA-310
W.B1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
W.C1										<input type="radio"/>
W.C2				<input type="radio"/>						<input type="radio"/>
W.C3				<input type="radio"/>						<input type="radio"/>
W.C4										<input type="radio"/>
W.C5				<input type="radio"/>						<input type="radio"/>
W.C6				<input type="radio"/>						<input type="radio"/>
W.C7				<input type="radio"/>						<input type="radio"/>
W.C8				<input type="radio"/>						<input type="radio"/>
W.C9				<input type="radio"/>						<input type="radio"/>
W.C10				<input type="radio"/>						<input type="radio"/>
W.D1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	
W.D2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	
W.D3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	
W.D4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	
W.D5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	
W.D6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	
W.D7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	
W.D8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	
W.D9									<input type="radio"/>	
W.D10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	
W.E1		<input type="radio"/>	<input type="radio"/>				<input type="radio"/>			
W.E2										
W.E3		<input type="radio"/>	<input type="radio"/>					<input type="radio"/>		
W.E4		<input type="radio"/>	<input type="radio"/>							
W.E5										
W.E6		<input type="radio"/>	<input type="radio"/>							
W.E7		<input type="radio"/>	<input type="radio"/>							
W.E8										
W.E9										
W.E10										
W.E11										
W.E12				<input type="radio"/>						
W.H1				<input type="radio"/>				<input type="radio"/>		
W.H2				<input type="radio"/>				<input type="radio"/>		
W.I1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>							
W.J1										
W.K1				<input type="radio"/>						
C.21										<input type="radio"/>
C.41	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C.51		<input type="radio"/>	<input type="radio"/>				<input type="radio"/>			
C.52										
C.71	<input type="radio"/>				<input type="radio"/>	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>
C.81	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>		<input type="radio"/>		
C.91	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>		
C.101										
C.131	<input type="radio"/>	<input type="radio"/>								
C.141								<input type="radio"/>		<input type="radio"/>
C.151	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

No.	Display Color Analyzer CA-410 Probe + Data Processor CA-DP40	Display Color Analyzer CA-410 Probe	SPECTRO-RADIOMETER CS-2000/CS-2000A	CHROMA METER CS-200	CHROMA METER CS-100A	ILLUMINANCE SPECTRO-PHOTOMETER CL-500A	CHROMA METER CL-200A	ILLUMINANCE METER T-10A/T-10MA	LUMINANCE METER LS-150/LS-160 CHROMA METER CS-150/CS-160	Display Flicker Analyzer FA-1000
W.B1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
W.C1										
W.C2		<input type="radio"/>								<input type="radio"/>
W.C3		<input type="radio"/>								<input type="radio"/>
W.C4										<input type="radio"/>
W.C5		<input type="radio"/>								<input type="radio"/>
W.C6		<input type="radio"/>								<input type="radio"/>
W.C7		<input type="radio"/>								<input type="radio"/>
W.C8		<input type="radio"/>								<input type="radio"/>
W.C9										<input type="radio"/>
W.C10		<input type="radio"/>								<input type="radio"/>
W.D1	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
W.D2	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
W.D3	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
W.D4	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
W.D5			<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
W.D6	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
W.D7	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
W.D8	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>		
W.D9										
W.D10	<input type="radio"/>					<input type="radio"/>		<input type="radio"/>		
W.E1	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
W.E2					<input type="radio"/>					
W.E3	<input type="radio"/>			<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
W.E4	<input type="radio"/>								<input type="radio"/>	
W.E5	<input type="radio"/>									
W.E6	<input type="radio"/>			<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
W.E7	<input type="radio"/>						<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
W.E8	<input type="radio"/>									
W.E9	<input type="radio"/>									
W.E10	<input type="radio"/>									
W.E11	<input type="radio"/>									
W.E12	<input type="radio"/>									
W.H1										
W.H2										
W.J1			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>	
W.K1										
C.21										
C.41	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
C.51	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
C.52	<input type="radio"/>								<input type="radio"/>	
C.71	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					<input type="radio"/>	<input type="radio"/>
C.81	<input type="radio"/>									
C.91										
C.101			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>	
C.131			<input type="radio"/>	<input type="radio"/>					<input type="radio"/>	
C.141										<input type="radio"/>
C.151	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



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