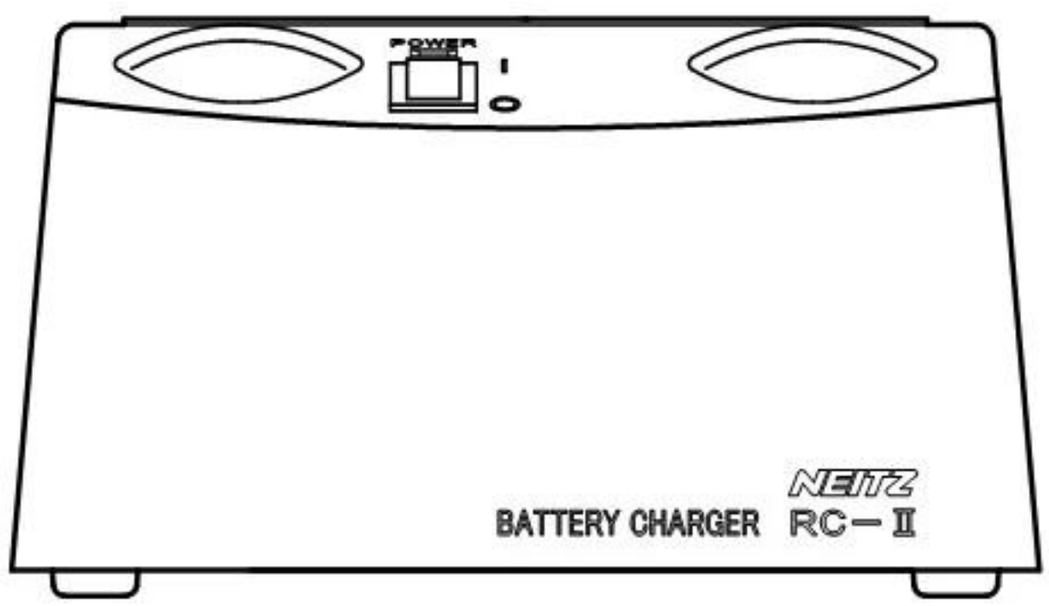
NEITZ

Dual Desk Charger RC-II

Instruction Manual



Thank you for purchasing the NEITZ Dual Desk Charger RC-II (hereinafter, called as “RC-II”). The RC-II has been designed exclusively for use with Neitz Indirect Ophthalmoscope BXα-RC and Neitz Streak Retinoscope RX-RC.

Please read this instruction manual carefully before use to avoid unexpected accidents, and store it in a safe place for future reference. Please also read the instruction manual of the Indirect Ophthalmoscope BXα-RC and/or Streak Retinoscope RX-RC carefully when the charge for battery is required.

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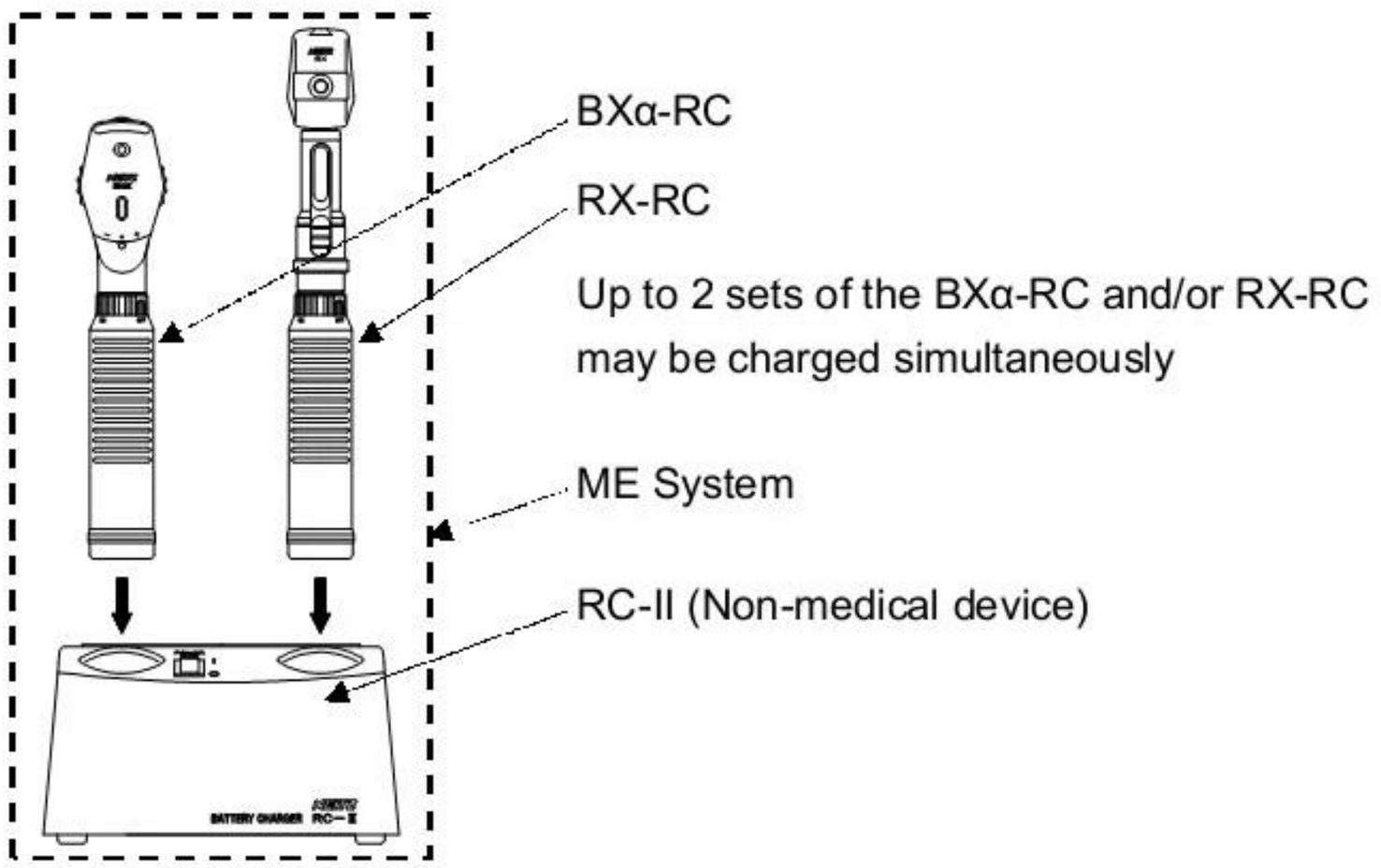
1 Summary of RC-II

The RC-II has been designed exclusively for use with the following medical devices;

- Neitz Ophthalmoscope BXα-RC (hereinafter, called as “BXα-RC”)
- Neitz Streak Retinoscope RX-RC (hereinafter, called as “RX-RC”)

When the RC-II is combined with either of the above medical device, it constitutes a medical device (ME) system.

Summary of ME System



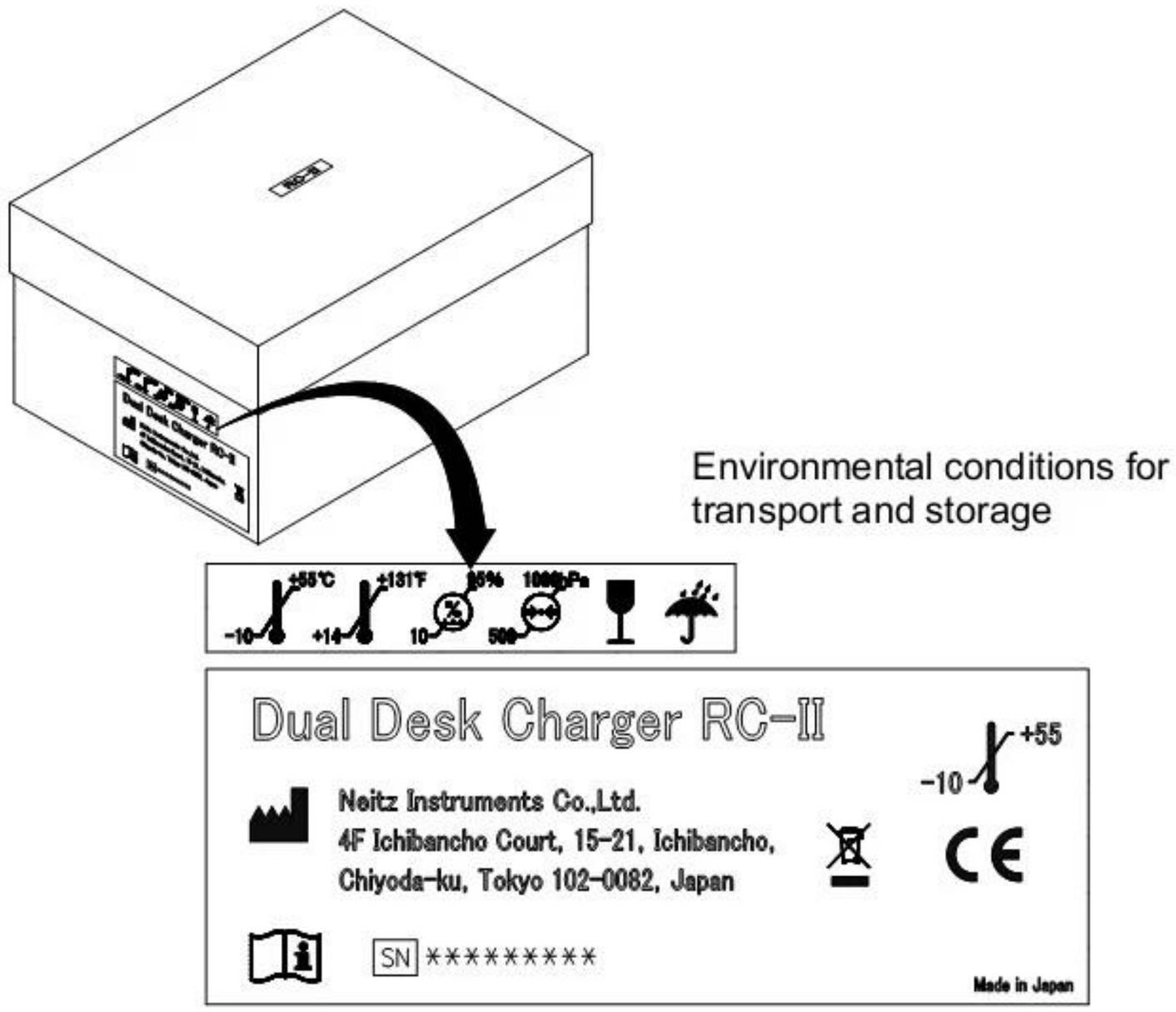
2 Symbols

The following symbols are used on this manual and/or package to assist you in proper handling and using this device, and to warn and caution you of potential hazards to yourself and others.

⚠WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠CAUTION	Used with the safety alert symbol, indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices that may cause property damage.
Prohibited	Prohibited action (must not be performed).
Instruction	Required actions (that must be performed) based on the instructions.
SN	Serial number. This symbol should be accompanied by the serial number of the device.
	Manufacturer. This symbol should be accompanied by the name and address of the manufacturer.
	This symbol shows that this device may not be disposed of together with general household waste and can be recycled separately from other household waste under the WEEE directive.

	This symbol instructs to consult the instructions of the device for information on how to properly use it.
	This symbol shows the lower and upper temperature limits (°C) for storage and transport.
	This symbol shows the lower and upper humidity limits for storage and transport.
	This symbol shows the lower and upper atmospheric pressure limits for storage and transport.
	Fragile. Handle with care.
	Keep dry.
 Ni-Cd	Nickel-cadmium rechargeable battery.
	Barcode for traceability purposes (sample).

3 Label on Package



4. Safety Information

For your safety please strictly comply with the following precautions.

	⚠WARNING
Prohibited	Do not use battery packs or AC adaptors other than the standard accessories supplied by the manufacturer. Doing so may result in electric shock or device failure.
Prohibited	Do not connect the power cable to an outlet with too many other devices. Doing so may cause injury or fire.
Prohibited	Do not use damaged cables or cords. Doing so may cause electric shock, fire or device failure.
Prohibited	Do not use in oxygen rich environments, in the presence of propane, gasoline or other combustible gasses, or near dust and debris. Doing so may cause explosion.
Prohibited	Do not short-circuit connectors or touch them with bare hands. Doing so may cause electric shock or device failure.
Prohibited	Do not attempt to disassemble or modify the device. Doing so may result in electric shock, fire or device failure.
Prohibited	Do not touch the device with wet hands. Doing so may result in electric shock.
Instruction	To avoid the risk of electric shock, this equipment must only be connected to a supply mains with protective earth.
Instruction	In the event of ingress of water or other liquids, unplug from the power outlet immediately. Failure to do so may result in electric shock, fire or device failure.
Instruction	Unplug the power cable from the power outlet prior to cleaning. Failure to do so may result in electric shock
Instruction	Take care to only touch insulated parts when inserting the power plug into the power outlet. Failure to do so may cause electric shock or fire.
Instruction	Be sure the BXα-RC and/or RX-RC is turned off prior to charging. Charging the device while illuminated may cause the device to reach dangerous temperatures.

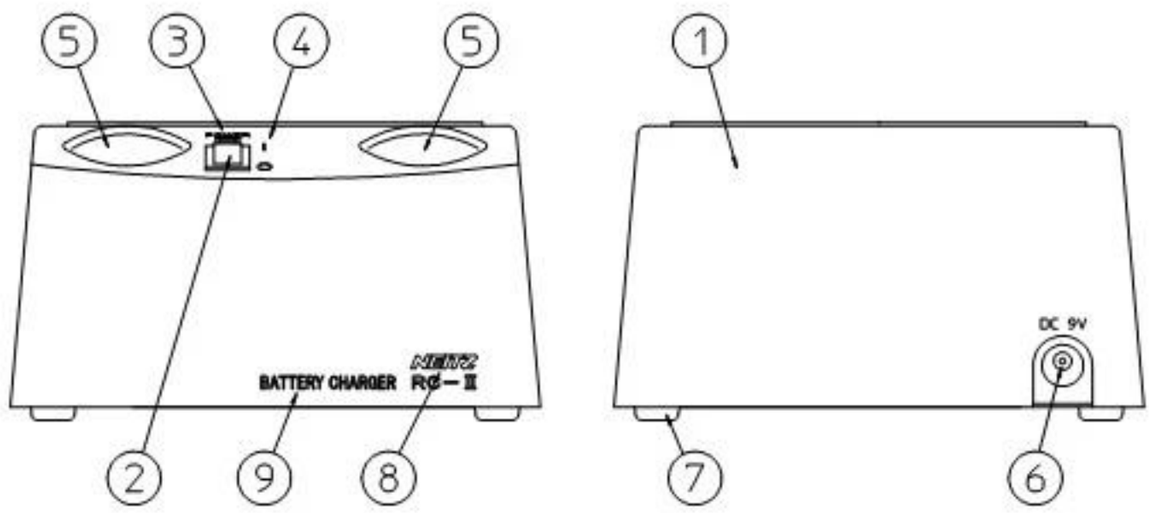
	⚠CAUTION
Prohibited	Do not apply strong force to the equipment or handle roughly.
Prohibited	Do not install the device in places where it may be difficult to plug in/out to/from the power outlet
Prohibited	Do not use in excessively humid or saline environments, or places where the device may be sprayed with water. Doing so may result in electric shock or device failure.
Prohibited	Do not expose the device to direct sunlight or harmful radiation. Doing so may lead to unexpected heating and result in device failure.
Prohibited	Do not attempt to charge the BXα-RC and/or RX-RC when wet.
Prohibited	Do not place heavy objects on, apply excessive tension to, or fold cables, cords and connectors. Doing so may result in damage and electric shock or fire.

 Prohibited	Do not bring metallic objects (e.g. paper clips) in proximity of the charging port or wet the charging port.
 Prohibited	Do not use paint thinners, cleaning agents or boiling water to clean the device. Doing so may cause deformation or device failure.
 Prohibited	Do not immerse in cleaning detergents or rinse with water. Doing so may cause device failure.
 Prohibited	Do not use the BXα-RC adjacent to or stacked with other equipment. In cases where adjacent or stacked use is necessary, verify the BXα-RC operates normally prior to use.
 Prohibited	Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the BXα-RC. Otherwise, degradation of the performance of this equipment could result.
 Instruction	Unplug from the power outlet during long periods of disuse. Not doing so may cause fire or device failure.
 Instruction	Allow the device to return to room temperature before unpacking. Not doing so may cause condensation and lead to device failure.
 Instruction	Do not place the device on unsteady surfaces.
 Instruction	When disconnecting cables, be sure to hold the plug. Never pull the cable.

5 Checking Package Contents and Nomenclature

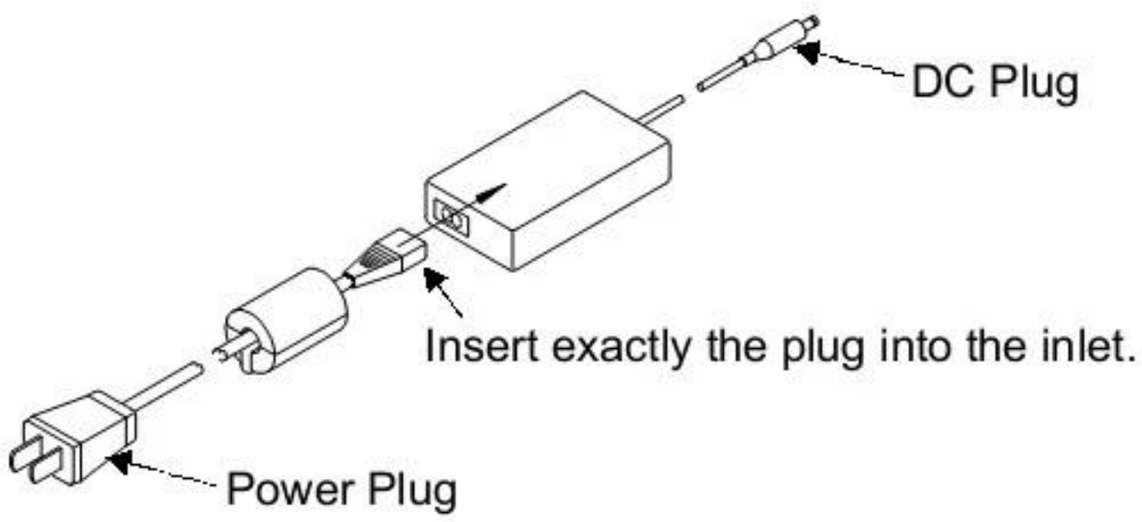
Make sure to match all items in the package with the components shown below. Inspect each item for damage. If any items are missing or damaged, do not use the device and immediately contact your local dealer.

(1) Dual Desk Charger RC-II (“Main Unit”) ..... 1 unit



① Case
② Power Switch
③ Power Lamp
④ ON/OFF Marking
⑤ Charging Port(s)
⑥ DC Jack
⑦ Rubber Foot
⑧ Logo of Manufacturer
⑨ Name of Device

(2) AC Adaptor..... 1 set



(3) Vinyl Cover..... 1 piece



(4) User’s Manual..... 1 set

7 Operation

(1) Place the RC-II in the flat and stable place such as a table.

(2) Connect the DC Plug of AC Adaptor to the DC Jack of the RC-II, and plug the Power plug into the wall outlet.

(3) Turn the Power switch from the OFF position (marked as "○") to the ON position (marked as "|"), and the Power light turns in green that means the RC-II is ready for charging.

(4) Turn off the BXα-RC and/or RX-RC without fail and set it or them to the Charging point(s). Full charging of battery is completed after approx. 15 hours from an uncharged condition. After the full charge (approx. 15 hours later) turn the Power switch of RC-II off.
Under using the fully charged battery the BXα-RC or RX-RC can illuminate for approx. 80 minutes. It is recommended to charge the battery with time to spare before it empties after using the BXα-RC or RX-RC for a certain amount of time.
CAUTION:

It is not possible to charge the battery when the BXα-RC and/or RX-RC is turned on. Be sure to charge the BXα-RC and/or RX-RC after turning it (them) off. If still ON, it may create high heat felt hot in touch.

(5) Unplug the power cord from the wall outlet if the charge will not be implemented for long periods of time and cover the RC-II with the accessory Vinyl cover to prevent it from dust.

8 Maintenance

8.1 Cleaning

Wipe the surface with dry lint-free cloth or lint-free soft cloth slightly moistened with diluted neutral detergent, and then dry all surfaces completely.
Maintain the charging port without any foreign materials, and wipe the terminal for charging with cotton bud or the like.

8.2 Disposal

Safely dispose of the RC-II and accessories in accordance with local regulations and/or environmental guidelines.

8. Troubleshooting

If the Main unit does not function properly, some problems may be solved by referring to the following chart. If the problem cannot be resolved, stop and contact your local dealer or Neitz immediately.

The following table shows the possible causes and troubleshooting solutions.

Problem	Possible Cause	Solution
Cannot Charge	AC adaptor is not connected to the wall outlet or the DC jack.	Connect it properly to them.
	Power switch is not turned on.	Turn it on.
	The BXα-RC or RX-RC is inserted into the charging port while turning it on.	Turn it off to insert.
	There is foreign materials inside of the Charging port(s). The RC-II is dirty with dust and so on.	Remove foreign materials and clean the RC-II.
It takes time to charge. Use (light) time is short.	The performance of rechargeable battery deteriorates when charged more than 500 times.	In such a case, purchase a new battery “1000RS” at the dealer and replace with a new one.

9 Specifications

Product Specifications

Input Power	AC 100 V to 240 V 50 Hz / 60 Hz
Output Power (from AC adaptor)	DC 9 V 2.5 A
Power Consumption	12 VA (while charging)
Dimensions*1 *2	180 mm x 98 mm x 78 mm Approximately 460 g

*1: Values when stored in case.
*2: Excluding protrusions

Classification

Degree of protection against electric shock	Class II electrical equipment
Applied parts	No applied parts
Degree of protection against harmful ingress of water or particulate matter	IPX0
Method(s) of sterilization	Do not sterilize
Suitability for use in an oxygen rich environment	Do not use in oxygen rich environments
Mode of operation	Continuous operation

Safety Standards

Electric Safety	IEC 60601-1:2005+AMD1:2012 (RC-II)
	IEC 60950-1:2005+AMD1:2009 (AC adaptor)
Electromagnetic Disturbances	IEC 60601-1-2:2014

Environmental Conditions

	Use	Storage	Transport
Temperature	+10 °C to +40 °C (50 °F to 104 °F)	-10 °C to +55 °C (14 °F to 131 °F)	-10 °C to +55 °C (14 °F to 131 °F)
Relative Humidity	30 % to 90 % (no condensation)	10 % to 95 % (no condensation)	10 % to 95 % (no condensation)
Atmospheric Pressure	800 hPa to 1060 hPa	500 hPa to 1060 hPa	500 hPa to 1060 hPa

10 Contact Information

If you have any questions or need technical support, contact your local dealer or NEITZ located at the following address.

[LOCAL DEALER]



Neitz Instruments Co. Ltd.
4F Ichibancho Court, 15-21, Ichibancho, Chiyoda-ku,
Tokyo 102-0082, Japan
Phone: (+81) 3-3237-0552; Fax: (+81) 3-3237-0554
e-mail: neitz-global@neitz.co.jp
URL: https://www.neitz.co.jp/en/

ANNEX
EMC Guidance

The RC-II forms part of an ME system and requires special precautions regarding EMC. Refer to the following EMC information for appropriate installation and putting into service.
Take care when using portable and mobile RF communications equipment in proximity of the RC-II, as they can affect performance.

(1) Environments of intended use:
Professional healthcare facility environments and home healthcare environments

(2) Replaceable cables, transducers or accessories likely to affect compliance of the RC-II with the applied EMC Standard:
HVCTFK 2 x 0.75 mm^2 2P Cord Set (1.9 m)

(3) Applied EMC Standard:
IEC 60601-1-2:2014
(a) Connection to the public mains network: Yes
(b) Applicable port(s): Enclosure Port, AC power port

Electromagnetic Emissions		
Phenomenon	**Applied Standard**	**Emission Test Levels**
Conducted and radiated RF emissions	CISPR 11	Class B Group 1
Voltage fluctuations and flicker	IEC 61000-3-3	230 V 50 Hz

Electromagnetic Immunity		
Phenomenon	**Applied Standard**	**Immunity Test Levels**
Electrostatic discharge	IEC 61000-4-2	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air
Radiated RF EM fields	IEC 61000-4-3	10 V/m 80 MHz – 2.7 GHz 80 % AM at 1 kHz
Proximity fields from RF wireless communications equipment	IEC 61000-4-3	385 MHz – 5785 MHz
Electrical fast transients / bursts	IEC 61000-4-4	± 2 kV 100 kHz repetition frequency
Surges Line-to-line	IEC 61000-4-5	± 0.5 kV, ± 1 kV (0°, 90°, 180°, 270°)
Conducted disturbances induced by RF fields	IEC 61000-4-6	3 V 0.15 MHz – 80 MHz 6 V in ISM bands between 0.15 MHz and 80 MHz 80 % AM at 1kHz
Rated power frequency magnetic fields	IEC 61000-4-8	30 A/m 50 Hz or 60 Hz

Voltage dips	IEC 61000-4-11	0 % U_T: 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315°
		0 % U_T: 1 cycle And 70 % U_T: 25/30 cycles (50/60 Hz) Single phase: at 0°
Voltage interruptions	IEC 61000-4-11	0 % U_T: 250/300 cycles (50/60 Hz)

(4) Effect of electromagnetic disturbances on essential performance

Essential Performance	**Outcome if Essential Performance is Lost or Degraded**
Charging of medical devices	Charging prevented

Notes:

Notes:



Manufactured by

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TD11-12760001E-5
202010
Printed in Japan