

NearBright®

Illuminated Near Vision Kit

User's Guide



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Caution: Federal law restricts this device to sale by or on the order of a licensed practitioner. Rx only.

Warnings and Cautions

Reichert Technologies® (Reichert®) is not responsible for the safety and reliability of this instrument when unauthorized dealers or persons assemble, disassemble, repair, or modify the instrument, or when a person does not use the instrument in accordance with this User's Guide.

WARNING: AN INSTRUCTION THAT DRAWS ATTENTION TO THE RISK OF INJURY OR DEATH.



WARNING: UNITED STATES FEDERAL LAW AND EUROPEAN REGULATIONS REQUIRE THAT ONLY A LICENSED PRACTITIONER OR A PERSON ACTING ON BEHALF OF A LICENSED PRACTITIONER PURCHASE THIS DEVICE.

WARNING: THE OPERATOR OF THIS INSTRUMENT SHOULD USE IT IN STRICT ACCORDANCE WITH THE INSTRUCTIONS OUTLINED IN THIS USER'S GUIDE. REICHERT TECHNOLOGIES CANNOT GUARANTEE THE SAFETY OF THE OPERATOR AND THE PERFORMANCE OF THE INSTRUMENT IF THE OPERATOR USES THE INSTRUMENT IN A MANNER NOT SPECIFIED BY REICHERT TECHNOLOGIES.

WARNING: THE BATTERIES SHOULD ONLY BE REPLACED WITH THE BATTERIES SPECIFIED IN THIS MANUAL. USE OF OTHER BATTERIES MAY CAUSE FIRE OR AN EXPLOSION.

WARNING: DO NOT PLACE A SHORTING DEVICE BETWEEN THE BATTERY TERMINALS, OR ALLOW THE BATTERIES TO BECOME WET. MISUSE OR IMPROPER DISPOSAL OF THE BATTERIES MAY CAUSE THEM TO BECOME VERY HOT, IGNITE OR EXPLODE. DAMAGE TO THIS UNIT AND/OR SERIOUS PERSONAL INJURY MAY RESULT.

WARNING: DO NOT RECHARGE THE BATTERIES. THE BATTERY IS NOT DESIGNED TO BE CHARGED BY ANY ELECTRICAL SOURCE. CHARGING COULD GENERATE GAS AND INTERNAL SHORT-CIRCUITING, LEADING TO DISTORTION, LEAKAGE, OVERHEATING, EXPLOSION, OR FIRE.

WARNING: DO NOT EXPOSE THE BATTERIES TO TEMPERATURES ABOVE 60°C (140°F) DISASSEMBLE THE BATTERIES, OR DAMAGE TO THIS UNIT AND/OR SERIOUS PERSONAL INJURY MAY RESULT.

WARNING: NEVER ALLOW LIQUID LEAKING FROM THE BATTERY TO GET IN YOUR EYES OR MOUTH AS THIS LIQUID COULD CAUSE SERIOUS PERSONAL INJURY. IF IT COMES IN CONTACT WITH YOUR EYES OR MOUTH, FLUSH THEM IMMEDIATELY WITH PLENTY OF WATER AND CONSULT A PHYSICIAN.

WARNING: ALWAYS KEEP BATTERIES OUT OF THE REACH OF INFANTS AND YOUNG CHILDREN TO PREVENT THEM FROM BEING SWALLOWED. IF SWALLOWED, CONSULT A PHYSICIAN IMMEDIATELY.

WARNING: NO PERSON IS ALLOWED TO MODIFY THIS INSTRUMENT. REICHERT MUST AUTHORIZE ANY MODIFICATION TO THIS UNIT TO ENSURE CORRECT OPERATION.

Symbol Information

 ON / OFF



Waste of Electrical and Electronic Equipment



Compliance to Medical Device Directive 93/42/EEC

Indications for Use

The NearBright® Illuminated Near Vision Kit is a device to present a chart with block letters or symbols in graduated sizes, intended to test visual acuity when attached by a rod to a (Phoropter® type) refractor. The NearBright system can automatically illuminate the chart using a battery powered LED illuminant.

Contraindications

None known.

Introduction

Congratulation on your purchase of the Reichert Technologies NearBright Illuminated Near Vision Kit.

Please retain this guide for future reference and to share with other users. For additional copies of this manual or questions related to this device, contact your local authorized Reichert dealer, or contact our Customer Service department directly:

Tel: 716-686-4500

Fax: 716-686-4555

Email: reichert.information@ametec.com

Installation and Setup

Your NearBright Illuminated Near Vision Kit comes in one of the following configurations:

REF 16238 NearBright Illuminated Near Vision Kit – Snellen Card

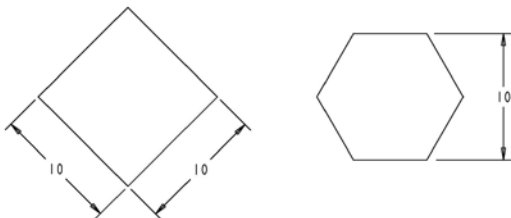
REF 16239 NearBright Illuminated Near Vision Kit – Decimal Card

Replacement reading cards and holders can be ordered as follows:

- Snellen Card Holder (includes Snellen Card) REF 16231
- Decimal Card Holder (includes Decimal Card) REF 16235
- Snellen Card REF 11999
- Decimal Card REF 16200-877

Place three AAA/LR3 batteries provided in the card illuminator according to the polarity marked inside the battery compartment, and replace the cover. Attach the NearBright card illuminator by sliding it onto your refractor's near vision rod with the switch end towards the patient seat, and position it at the desired reading distance. Slide the O / I switch to the ON (I) position to turn it on.

The NearBright will fit a 10 mm square diamond reading rod, or a 10 mm hexagonal rod.



Use and High / Low Illumination Controls

The reading card automatically unfolds and illuminates when the near vision rod is lowered. The card illuminator automatically folds and shuts off when the near vision rod is raised. The card illuminator also automatically shuts off after 15 minutes if left unattended when the rod is lowered. If this happens, simply tap the unit, raise and lower the rod, or slide the switch to OFF then ON.



The ON/OFF switch for the NearBright Illuminated Vision Kit is located on the patient side of the unit. Slide the switch to the ON (I) position to activate the lights.

The NearBright will start on High Illumination setting. The NearBright reading card is designed to produce luminance of 100 cd/m^2 at the High setting. Pressing the momentary contact button on the underside of the unit between the two LED's will lower illumination to the Low setting. Press the momentary contact button again to return it to the High illumination setting.

Replace the batteries as necessary with three new alkaline AAA/ LR3 batteries by removing the cover on the underside of the device. When the batteries are low, a red LED light will illuminate near the ON/OFF switch.

Specifications

REF 16238 / 16239

Includes: 3 AAA (LR3) Alkaline Batteries (4.5 V operating voltage)

Card Luminance - High setting: 100 cd/m².

Light source: 2 bichromatic white LED's (emission peaks near 450 & 560 nm)

Snellen symbols and use details are published in Reichert's Near Point Roto Chart User's Guide REF: 11999-101

Card Illuminator Assembly weight with batteries installed : 204 g (7.2 oz.)

Physical Dimensions

REF	Description	L (cm)	H (cm)	W (cm)	Weight (kg)
16235	Decimal Card Holder	22.2	1.3	20.3	0.1
16231	Snellen Card Holder	22.2	1.3	20.3	0.1
	Card Illuminator Assembly (without batteries)	9.5	3.2	6.4	0.1

Environmental

Operating environmental conditions are as follows:

Temperature: 10° to 35° C (50° to 95° F)

Relative Air Humidity: 30 to 90%

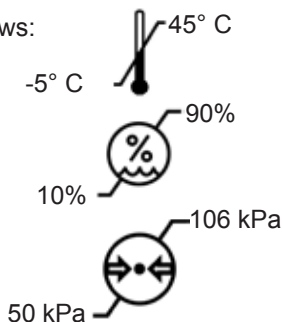
Air Pressure: 80 kPa to 106 kPa

Transportation and Storage:

Temperature: -5° to 45° C (23° to 113° F)

Relative Air Humidity: 10 to 90%

Air Pressure: 50 kPa to 106 kPa



Disposal

Dispose of the batteries and the NearBright in accordance with local regulations. The device and batteries contain no hazardous materials.



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