Provide a premium refraction experience for your patients.

# Phoroptor® VRx

Digital Refraction System







Drive practice efficiency and accelerate your exam process. Phoroptor® VRx Digital Refraction System easily adapts to your practice, allowing you to rapidly perform all of the functions of a manual Phoroptor®, and so much more, while comfortably seated next to your patient.

Phoroptor VRx sets new standards in digital refraction. With the thinnest, most compact design available, incredibly fast lens exchanges, motorized prisms, split cylinder lenses, and ultra-quiet operation, Phoroptor VRx offers an outstanding patient experience.

The touchscreen display and ergonomic keypad features a multi-function control knob with unmatched feel and versatility. The intuitive interface has all the pre-programmed and programmable tests you'll need for an exceptional user experience.

Phoroptor VRx connects to EMR systems as well as numerous models of pre-test and acuity devices from both Reichert and non-Reichert brands, for effortless integration.



### Inventing and reinventing.

Reichert's legacy in refraction continues.

For over 90 years, the Phoroptor® name has been synonymous with the world's finest refracting instrument. Phoroptor® VRx continues with the same legendary engineering, quality, craftsmanship, and reliability – now with the speed and efficiency of a digital refraction.







# **Smallest design. Biggest impression.** See more of your patient. See more patients.

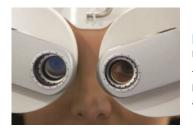
With the most compact digital refractor head available (12.2 W  $\times$  8 H  $\times$  2.8 D in. at a 64 mm PD), Phoroptor VRx is non-intimidating and allows for greater patient visibility. The sleek, refined and high-tech styling of Phoroptor VRx will impress all your current patients and help gain new ones.

## Impressively thin.

Thinnest Phoroptor yet.

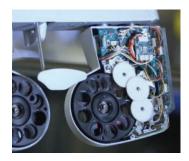
To prevent patients from experiencing tunnel vision, Phoroptor VRx has the thinnest lens profile amongst digital refractors, at 26 mm. In fact, Phoroptor VRx has a thinner profile than a manual Phoroptor.





# Retractability. Unique prism lenses.

To achieve the thinnest lens profile, Phoroptor VRx has external motorized prism lenses that slide in and out only as needed.



## Refined interior & exterior. Premium parts and assembly.

Premium motors and metal housing provide Phoroptor VRx with incredibly fast and ultra-quiet lens exchanges. Unlike other digital refactors, your patients will hardly notice the lens movement. Phoroptor VRx is designed and hand-assembled by skilled technicians in Buffalo, New York, USA.

## More cylinders. More horsepower.

Jackson Cross Cylinder, Smart Cylinder, and Split Cylinder.

Refinement of cylinder power and axis can be accomplished using the familiar Jackson Cross Cylinder or the innovative Smart Cylinder method where cylinder power and axis are automatically bracketed based on the amount of cylinder in the patient's prescription. Phoroptor VRx also features a Split Cylinder mode, where patients are simultaneously presented with two targets.





#### Selectable drive modes.

Pre-programmed & programmable tests.

To increase efficiency and allow refraction to be delegated to trained technicians, Phoroptor VRx has pre-programmed and programmable test options. You can choose from pre-programmed tests including astigmatism, phoria, binocular balance, and near vision. Customize up to four user programmable sequences that can be easily modified or conveniently shared between multiple Phoroptor VRx systems.

# Automatic headlights. Illuminated near point.

The RotoChart near point card is automatically illuminated, with two available brightness levels, when the reading rod is lowered into position.





## Precise handling and control.

Logical keypad design.

The Phoroptor VRx controller features a logically and ergonomically arranged keypad, designed to enhance the user experience. Buttons are grouped based on functionality for easy access: gray for data, blue for refraction, and black for acuity. Buttons are also LED backlit for better visibility in dimly lit exam rooms.

#### Multi-function knob.

The Phoroptor VRx multi-function control knob is smooth rotating and has a solid feel comparable to the Ultramatic RX Master™ Phoroptor\* dials you know and love, for unmatched control knob versatility.





# Instant comparison. Quickly compare prescriptions.

With a single touch, switch between final, subjective, unaided, auto refractor, or lensmeter data, allowing your patient to instantly visualize the difference in prescriptions.

#### Your digital dashboard.

10.4 inch touchscreen display.

You can access all functions and settings of the intuitive user interface, through the integrated 10.4 inch tilting, touchscreen display.





## Well connected & plays well with others. Connectivity to pre-test and acuity devices.

Unlike other digital refractors, not only does Phoroptor VRx seamlessly connect to Reichert lensmeters, auto refractors, and acuity systems (such as LensChek™ Plus, OptoChek™ Plus, ClearChart\* 4), but Phoroptor VRx also connects to a comprehensive list of non-Reichert devices.

#### Bluetooth® comes standard.

Wirelessly connected.

Bluetooth is built into the Phoroptor VRx Central Unit and Reichert Bluetooth adapters can be paired to connect an external instrument wirelessly.





## **Effortless integration.** EMR compatibility.

Phoroptor VRx integrates with an extensive list of EMR systems, removing the risk of transcription error and increasing patient throughput. Phoroptor VRx can take advantage of an EMR system's capability of bi-directional communication, allowing you to import and export refraction data.





## Phoroptor® VRx Digital Refraction System

System includes Phoroptor VRx Head Assembly, Controller, and Central Unit.

16241 Phoroptor VRx without Prism, Middle Mount

16242 Phoroptor VRx with Prism, Middle Mount







#### Standard Included Accessories

Dust Cover- Phoroptor Head	Power Cord 115V or Power Cord 230V
Dust Cover- Controller	Card Beam Assembly
Phoroptor Cable	Card Illuminator
User's Guide	Face Shield Kit (2 sets)
Decimal Card Holder or Snellen Card Holder	ClearChart 4/4X/4P USB Bluetooth Adapter

#### **Optional Accessories**

16230	Thermal Printer	
16205	Controller Table	
15171	Wireless Dongle Kit	Bluetooth Connection to LensChek Plus/Pro, OptoChek Plus
13778	Wireless Dongle Kit	Bluetooth Connection to ClearChart 4/4X/4P
16250	Wireless Dongle Kit	Bluetooth Connection to ClearChart 3P, AL200
16251	Wireless Dongle Kit	Bluetooth Connection to ClearChart 2
16255	Wireless Dongle Kit	Bluetooth Connection to AL500, Computer
16233	Wireless Dongle	Generic Bluetooth Connection to Non-Reichert Brands

## **Specifications:**

#### **Phoroptor Head Assembly**

Sphere Power	+17.75 to -22.25 D, Steps 0.25 or 1.00 D
Cylinder Power	+8.0 to -8.0 D, Steps 0.25 or 1.00 D
Axis Adjustment	0 to 180°, Steps 1°, 5°, or 10°
Cross Cylinder Test	± 0.25 D
Corneal Vertex Distance	0, 12, 13.5, 16, or 18 mm

Prism (Optional)	20 Δ, Steps 0.25 or 0.50 D
Pupil Distance	50 to 80 mm, Steps 1 mm Binocular
Convergence	400 mm
Height Level of Eyes, Adjustment	± 3 mm
Leveling	Via Bubble Level
Free Aperture	19 mm
Thickness of Housing at Viewing Aperture	26 mm
Width × Height × Depth (at PD = 64mm)	31 × 20.3 × 7.1 cm (12.2 × 8 × 2.8 in.)
Weight w/ Mount, w/o Prism Compensator	4.42 kg (9.75 lb)
Weight w/ Mount, w/ Prism Compensator	4.65 kg (10.25 lb)
Weight w/o Mount, w/o Prism Compensator	3.95 kg (8.70 lb)
	4.17 kg (9.20 lb)
Weight w/o Mount, w/ Prism Compensator  Controller with Display	4.17 kg (7.20 lb)
•	
Controller with Display	
Controller Width × Height × Depth	23.4 × 4.6 × 16.8 cm (9.9 × 1.5 × 6.9 in.
Controller with Display  Controller Width × Height × Depth  Display Width × Height × Depth	23.4 × 4.6 × 16.8 cm (9.9 × 1.5 × 6.9 in. 22.4 × 15.7 × 1.5 cm (10 × 7 × 2.8 in.)
Controller with Display  Controller Width × Height × Depth  Display Width × Height × Depth  Display Size Diagonal	23.4 × 4.6 × 16.8 cm (9.9 × 1.5 × 6.9 in. 22.4 × 15.7 × 1.5 cm (10 × 7 × 2.8 in.) 10.4 in. (1024 × 768 Pixel Resolution)
Controller with Display  Controller Width × Height × Depth  Display Width × Height × Depth  Display Size Diagonal  Weight	23.4 × 4.6 × 16.8 cm (9.9 × 1.5 × 6.9 in. 22.4 × 15.7 × 1.5 cm (10 × 7 × 2.8 in.) 10.4 in. (1024 × 768 Pixel Resolution) 2.9 kg (6.4 lb)
Controller with Display  Controller Width × Height × Depth  Display Width × Height × Depth  Display Size Diagonal  Weight  Central Unit  Width × Height × Depth	23.4 × 4.6 × 16.8 cm (9.9 × 1.5 × 6.9 in. 22.4 × 15.7 × 1.5 cm (10 × 7 × 2.8 in.) 10.4 in. (1024 × 768 Pixel Resolution) 2.9 kg (6.4 lb)
Controller with Display  Controller Width × Height × Depth  Display Width × Height × Depth  Display Size Diagonal  Weight  Central Unit  Width × Height × Depth  Weight	23.4 × 4.6 × 16.8 cm (9.9 × 1.5 × 6.9 in.) 22.4 × 15.7 × 1.5 cm (10 × 7 × 2.8 in.) 10.4 in. (1024 × 768 Pixel Resolution) 2.9 kg (6.4 lb) 20.1 × 8.9 × 26.7 cm (7.9 × 3.5 10.5 in.)
Controller with Display  Controller Width × Height × Depth  Display Width × Height × Depth  Display Size Diagonal  Weight  Central Unit  Width × Height × Depth  Weight  Input Voltage	23.4 × 4.6 × 16.8 cm (9.9 × 1.5 × 6.9 in. 22.4 × 15.7 × 1.5 cm (10 × 7 × 2.8 in.) 10.4 in. (1024 × 768 Pixel Resolution) 2.9 kg (6.4 lb) 20.1 × 8.9 × 26.7 cm (7.9 × 3.5 10.5 in.) 3.2 kg (7.1 lb)
Controller with Display  Controller Width × Height × Depth  Display Width × Height × Depth  Display Size Diagonal  Weight  Central Unit  Width × Height × Depth  Weight  Input Voltage  Frequency	23.4 × 4.6 × 16.8 cm (9.9 × 1.5 × 6.9 in. 22.4 × 15.7 × 1.5 cm (10 × 7 × 2.8 in.) 10.4 in. (1024 × 768 Pixel Resolution) 2.9 kg (6.4 lb) 20.1 × 8.9 × 26.7 cm (7.9 × 3.5 10.5 in.) 3.2 kg (7.1 lb) 100 - 240V~
Controller with Display  Controller Width × Height × Depth  Display Width × Height × Depth  Display Size Diagonal  Weight  Central Unit	23.4 × 4.6 × 16.8 cm (9.9 × 1.5 × 6.9 in.) 22.4 × 15.7 × 1.5 cm (10 × 7 × 2.8 in.) 10.4 in. (1024 × 768 Pixel Resolution) 2.9 kg (6.4 lb)  20.1 × 8.9 × 26.7 cm (7.9 × 3.5 10.5 in.) 3.2 kg (7.1 lb) 100 - 240V~ 50 - 60 Hz

#### **EMR System and External Device Compatibility**

For a current list of EMR systems, Reichert, and non-Reichert devices that are compatible with Phoroptor VRx, view the product specifications at www.reichert.com.

Projector (Acuity System), Printer, Instrument 1 I/O, Instrument 2 I/O,

EMR Port, Transfer Port

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Digital Refraction System

**AMETEK** 

reichert.com/vrx





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