



EFFICIENCY  
WITHOUT COMPROMISE



**VISION-R 700**

FAST AND SECURED REFRACTION



# VISION-R 700

## ACCELERATE REFRACTION ... WITHOUT COMPROMISING ON ACCURACY

A good refraction can take time, but more time can lead to less efficiency. Until now, the only way to shorten the traditional procedure of bracketing the sphere, cylinder and axis independently was by cutting crucial steps. This can result in bigger variances and an estimation of the prescription.

## TAKE ADVANTAGE OF A BREAKTHROUGH IN REFRACTION TECHNOLOGY

Essilor developed a unique lens module that allows for a much smoother refraction process. This innovative technology incorporates a fast, multiple-increment algorithm to give you an exact refraction in a short period of time with a minimum increment of 0.12D adjustable to 0.12/0.25/0.50/1.00/2.00D. Furthermore, enhanced data communication with patient management systems makes for a seamless workflow across your practice.





# FAST REFRACTION WITH SECURED ACCURACY

## MINIMIZE THE COMPROMISE BETWEEN SPEED AND ACCURACY

Outdated technology had eye care professionals believing that any increase in speed meant a decrease in accuracy. The Essilor Vision-R™ 700 automatic phoropter breaks this compromise.

Thanks to Digital Infinite Refraction™, Vision-R 700 obtains a fast refraction in only three minutes, while securing accuracy.

With dedicated Smart Programs and algorithms, Vision-R 700 controls accuracy by using small and large increments of the continuous lens.

### How does the Vision-R 700 phoropter redefine refraction?

#### SMART PROGRAMS AND ALGORITHMS

A series of patient-specific Smart Programs incorporating Digital Infinite Refraction shorten the procedure and assist in calculating the best endpoint for the patient.

#### SIMULTANEOUS COMPENSATION

This innovation allows for a fast and direct refraction method: Digital Infinite Refraction. Continuous compensation on the sphere, cylinder and axis ensures accuracy, as answers are based on compensated powers, eliminating the need for estimated lens compensation.

#### CONTINUOUS LENS POWER

Smooth and instant transitions between multiple dioptric powers eliminate unwanted stimuli and control accommodation.

#### VERTEX DISTANCE MEASUREMENT

Vertex distance is measured to the millimeter and controllable from a distance. Combined with the automatic compensation to the reference vertex distance, accuracy is controlled right to the end.



# 2

## EASY TO PERFORM



### EXCEPTIONAL PERFORMANCE IS THE NEW STANDARD

The Vision-R™ 700 phoropter has been developed with ease of use and performance excellence as its starting points. The process is designed to guide the practitioner from start to finish. The eye care professional (ECP) only needs to record data, while the phoropter changes the dioptric values and relevant tests to achieve the final result.

#### What makes it easy to use with excellent results?

##### PROGRAM RECOMMENDATION FUNCTION

A Smart Program recommendation is made for each patient. Depending on the imported patient data, the ideal program is recommended by the phoropter.

##### SMART TESTS AND ALGORITHMS

Vision-R 700 comes with automated Smart Tests that assist the ECP when performing the refraction, making the phoropter truly user-friendly.

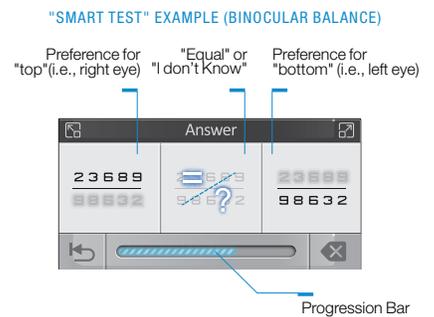
Algorithms change the tests and calculate the dioptric power in reaction to the patient's answers.

##### SECURE PROCEDURE

The secure and guided procedure from start to finish ensures an accurate result, even in the hands of less experienced operators.

##### HELP FUNCTION

If needed, you can easily access the 'Help' function with details regarding the current test to help guide the ECP through the process.



Note: The Vision-R 700 phoropter can perform as a normal digital phoropter without using the Smart Tests, allowing for total freedom of the ECP.



# 3

## IMPROVED PATIENT EXPERIENCE

### GROW YOUR BUSINESS THROUGH PATIENT EXPERIENCE

The Vision-R 700 phoropter provides an excellent patient experience during refraction and eliminates the feeling of failing a test. Make the refraction experience remarkable through:

#### A COMPACT DESIGN AND SILENT LENS CHANGES

A modern design functions as a showcase for innovative technology. Its compact size makes it easier to handle. Its silent lens changes minimize distractions.

#### A WIDER FIELD OF VISION

No superposition of lenses is needed in traditional phoropters. The patient has a more natural field of vision and is more comfortable without the effect of tunnel vision.

#### EASIER TO ANSWER

The patient now has the option to report that he sees “no difference” or “doesn't know which option is better.” The Smart Tests use this information to give accurate results. The guessing game is eliminated and patient confidence reassured.

#### MULTIPLE FINAL COMPARISONS

An efficient and detailed comparison function, where multiple different scripts and scenarios can be compared at the click of a button. This allows the patient to imagine what to expect with the new prescription.

#### NO VISUAL FATIGUE

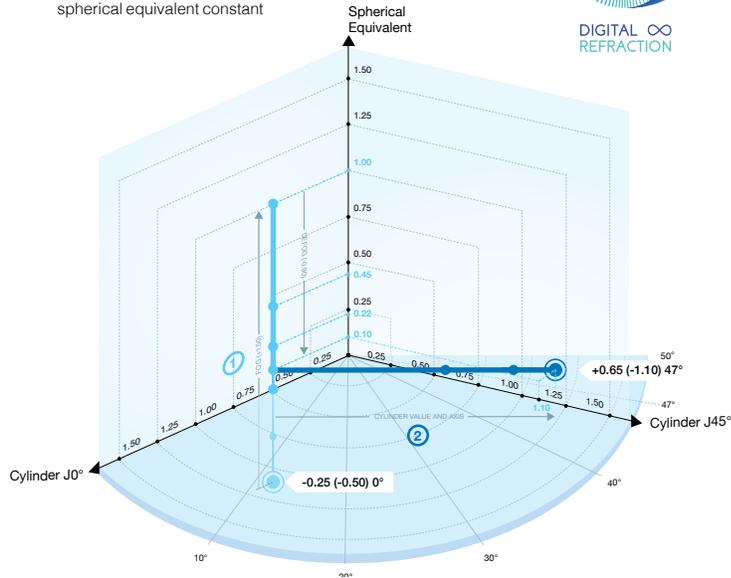
Thanks to the shorter process, the patient experiences less visual fatigue by providing fewer direct answers.



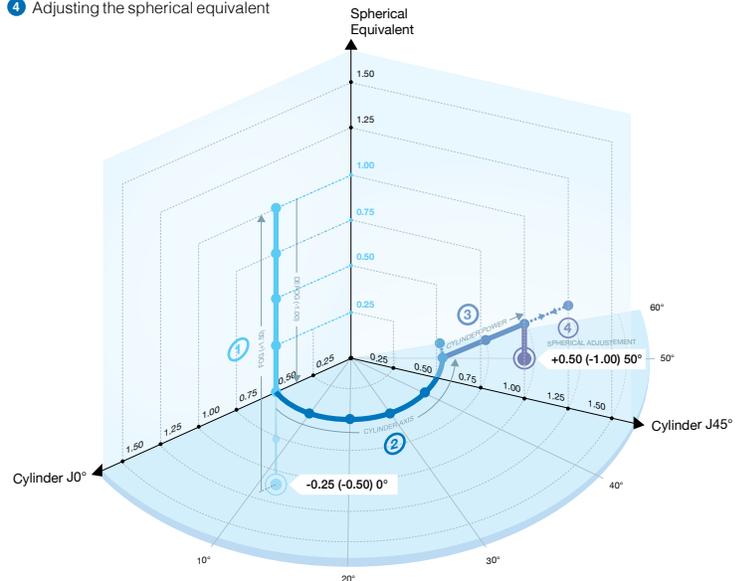
# DIGITAL INFINITE REFRACTION™:

## A MORE DIRECT ACCESS TO THE FINAL PRESCRIPTION

- 1 Determining the spherical equivalent value
- 2 Determining the cylinder axis and value while maintaining the spherical equivalent constant



- 1 Determining the sphere value
- 2 Determining the cylinder axis
- 3 Determining the cylinder value
- 4 Adjusting the spherical equivalent





## A POWERFUL OPTICAL MODULE

The Vision-R™ 700 phoropter incorporates an exclusive breakthrough optical module. It allows for much smaller incremental power changes, making the switch significantly smoother for the patient. This liquid lens module is controlled by digital micromotors and provides:

A WIDER FIELD OF VISION

CONTINUOUS POWER

SIMULTANEOUS CHANGES

SILENT LENS CHANGES

INSTANT POWER

ALGORITHMS

DIGITAL INFINITE REFRACTION™

# PHOROPTER SPECIFICATIONS

## CENTERING

Interpupillary distance	49 mm to 80 mm at far distance (in 0.50 mm steps)
Binocular and monocular adjustments	
Convergence	Automatic, compared to the position of the target for near vision and to the patient's pupillary distance
Vertex distance	From 4.0 to 30.0 mm in 0.1 mm steps, monocular, measured by cameras

## MEASUREMENT RANGE

Sphere	From -20.00D to +20.00D
Cylinder	up to 8.00D dependent on lens combinations - In the "Standard" mode: a minimum increment of 0.12D adjustable to 0.12/0.25/0.50/1.00/2.00D - In the "Intelligent" mode: multiple smaller and larger steps which round to 0.25D
Axis	0° to 180° in 1° increments, with adjustable steps
Prism	0 to 20 Δ in 0.1 Δ increments, with adjustable steps

## AUXILIARY LENSES

Occluders	Dark
Pin hole	Yes
Retinoscopic lenses	+1.50D, +2.00D (powered by optical module)
Fog lenses	+1.50D, +2.00D (powered by optical module)
Jackson cross cylinders	± 0.25D, ± 0.5D (powered by optical module)
Fixed cross cylinders	± 0.50D (powered by optical module)
Prisms	3 Δ base up / 3 Δ base down, 6 Δ base up, 10 Δ base in (powered by varying prisms / diasporameters)
Maddox rods	Red, horizontal and vertical
Red/green filters	Red on right eye, green on left eye
Polarized filter	Both linear and circular

## DIMENSIONS AND WEIGHT

Head of the phoropter	Width: 11.6 in. at the top and 8.6 in. at the bottom / height: 8.7 in. Depth: 3.3 in. at the top and 2.6 in. at the bottom Total weight: 7.7 lb.
Console (keyboard + screen)	Keyboard: 11.0 x 8.7 in. Screen display: 10.4 in. Total weight: 6.6 lb.
Power supply	Length: 6.4 in. Width: 7.6 in. Depth: 2.3 in. Total weight: 2.2 lb.

Internet required

### CE Conformity marking

As improvements are made, these specifications are not contractually-binding and may be modified without prior notice.  
Vision-R™ 700 is a trademark of Essilor International.

