



Digital Refractor

# HDR-7100P



Innovative  
Digital Refractor  
Solutions

**Huvitz** Re:define. Re<sup>+</sup>create

# DIGITAL REFRACTOR HDR-7100P

Setting the Standard for Precise Measurement!

Embrace precision and sophistication with the Digital Refractor HDR-7100P. Its harmonious, ergonomically curved design sets a new benchmark in the world of optometry.

Elegant Form Meets Exceptional Functionality

The HDR-7100P's soft, flowing curves and striking silver metallic finish effortlessly integrates into any optometry space. Elevate your practice with the HDR-7100P, where sophistication meets comfort.





# Fast and Accurate: Elevating Reliability Experience Swift Precision in Every Test



Cross Cylinder Lens



Illumination / Detachable Near Chart Rod

## Precise astigmatism test

### Dual cross cylinder lens

Beyond the standard Jackson cross-cylinder lens, it streamlines and simplifies astigmatic testing, offering rapid and convenient measurement.

### Automatic occlusion

It ensures that accommodation is prevented during critical moments, such as when the lens rotates over 45 degrees or when test modes change.

## Accurate presbyopia test

### Automatic convergence

This feature ensures that examinees naturally focus on near vision charts, directing their gaze toward the center of the refractor lenses. The result is a precise and reliable test, setting a new standard in presbyopia assessment.

– Working distance : 35~70cm • Available Near PD : 50~74mm

### Variety of Near Vision Charts

We provide a diverse range of near vision charts, ensuring that you have the right tools at your disposal for precise and tailored near vision tests.

### LED Near Sight Illumination and Detachable Near Chart Rod

Equipped with built-in LED illumination, it automatically detects whether you're conducting a near or far sight test. The lighting adjusts accordingly, providing you with the ideal illumination for each test environment. The near chart rod can be effortlessly attached and detached thanks to its magnetic joint. This is not only streamlines the testing process but also ensures your comfort throughout.

## Precision in Binocular Test (Fixation Disparity)

### Accurate rotary prism

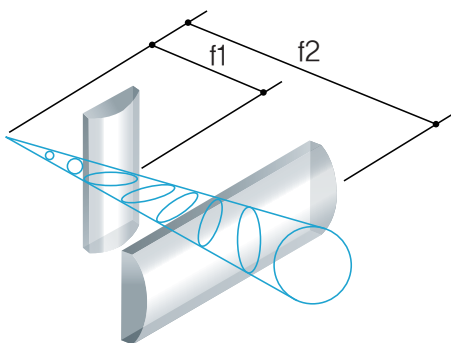
It allows you to obtain precise prism data with fine increments. The Automatic Occlusion function seamlessly assists during prism direction changes, ensuring that your tests are not just accurate but also correct.

### Various fixation disparity test methods

It offers an array of fixation disparity test methods, including the Von Graefe Test, Schober Test, Maddox Rod Test, Polar Cross Test, and more. You have the tools you need to tailor your examinations to each patient's unique requirements.

### American-Standard Optometry

Navigate complex examinations with ease. Our friendly GUIDE, based on American Standard Optometry methods, simplifies the process and accelerates your tests.



# DIGITAL REFRACTOR HDR-7100P



## Elevating Optometry Environments Consider HDR-7100P for your interior design needs: it's the ultimate choice

### Sophisticated design & efficiency

#### Minimal & modern design

Elevate your optometry environment with the HDR-7100P's minimalist and modern design. It maximizes the efficient use of space while blending with the decor with its white and silver color scheme.

### Customized optometry method

#### Monocular PD adjustment

Recognizing the uniqueness of each patient, HDR-7100P offers independent PD adjustments for both right and left eyes, ensuring precision in every examination.

#### Forehead rest indicator

A built-in sensor within the forehead rest goes beyond comfort. It notifies you with LED indicators, assuring that the examinee's forehead is perfectly rested, maintaining the most precise vertex distance for accuracy.

#### Fast and silent lens loading

Efficiency meets comfort with HDR-7100P's fast and silent lens loading. This not only reduces accommodational interference and eye fatigue but also ensures a quiet and seamless examination process.

#### Illuminated vertex distance check window

The illuminated vertex distance check window ensures that examinees' eyes are positioned at the correct vertex distance, guaranteeing the most precise test results.



PD Adjustment



Forehead Restraint Sensor

# Unlock a comprehensive networking solution with the HDR-7100P

## Various interfaces for easy installation

### Connection of various chart devices

The HDR-7100P seamlessly integrates with various chart devices, offering both wired and wireless connectivity options, whether it's a projector, dream chart, or LCD chart.

### Integrated management of data

the PC communication connection interface, allows the integration and management of customer data, streamlining your workflow. (Optional)

### Efficient multiple connection of systems

Embrace efficiency through connection support for Auto Ref/Keratometer and Auto Lensmeter. Better yet, a single set of connections for Auto Ref/Keratometer and Auto Lensmeter can be shared across multiple Huvitz Digital Refractor systems, maximizing cost efficiency. Simultaneous data sharing ensures seamless organization and management of the refraction test environment, offering a new level of efficiency.



Tilt & Swivel Monitor



Auto Cutting Printer

## More advanced function for precise optometry

### Tilting & swivel LCD panel

The HDR-7100P's tilting and swivel LCD panel offers the freedom to share displayed information from any direction or angle. It's flexibility that adapts to your needs.

### Touch Screen

The touch screen interface provides an intuitive guide, ensuring convenient and userfriendly operation.

### Multi-function Jog Dial

Streamline your workflow with the multi-function jog dial. It simplifies lens loading and program execution, ensuring both speed and convenience.

### Enhanced Tact switch

Our elegant tact switches are not only organized for functionality but also offer a satisfying tactile experience, making every operation a pleasure.

### Built-in printer

Accessing the printer has never been easier. The built-in printer on the operation panel simplifies the process, allowing for one-step paper replacement.

## Enhance exams with various advanced test methods

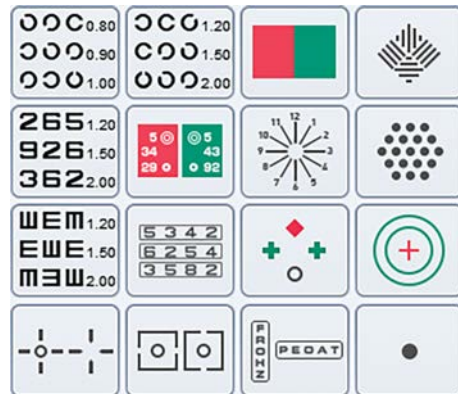
### Various charts and tests

Choose from 18 visual acuity test charts, 26 vision test charts, and up to 35 userdefined unit test charts. The HDR-7100P supports the most advanced eye test processes, ensuring precision and versatility.

### Global standard chart types

The HDR-7100P offers a wide array of global standard chart types.

Various charts and tests

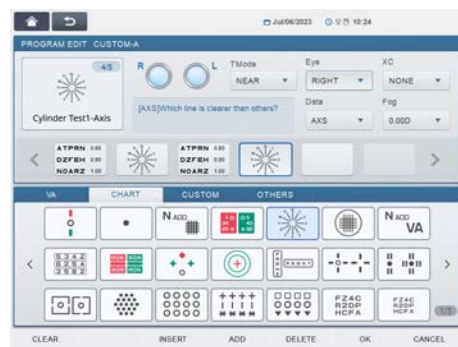


## Powerful programming functions

### Test process programming

Program up to 10 customized test processes and save them with detailed settings, including unit test chart conversion, auxiliary lens insertion, fogging, chart masking, and more.

Test process programming

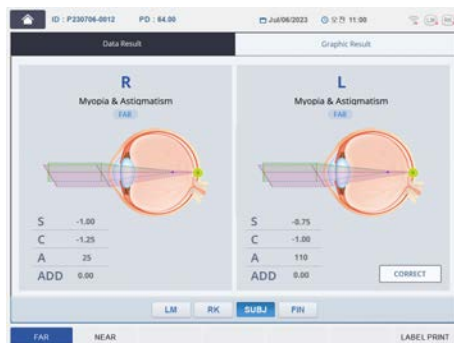


### User-defined test

Able to create and store up to 35 user-defined tests, ensuring that your tests are uniquely designed to meet your patients' needs.



Various Charts / Real Time Guide



Displaying the Result in Tables and Graphics

## Real-time optometry guide

### Real-time guide

The HDR-7100P provides graphical representations displayed on the screen, guiding you through the test process in real time.

### Displaying the result in tables and graphics

Test results are presented in tables and graphics, simplifying comprehension and enabling faster insights into your patient's eye health.

## Built-in gallery with excellent practicality

### Provides various image clips

Color blindness test, Amsler's grid, near vision charts, progressive lens guide and diagram of an eye & refraction ensure that you have the visual resources needed for a more perfect and informative examination.



# HDR-7100P

## Digital Refractor

### Specification

Measurement Range	
Spherical Lens	-29.00 ~ +26.75D (Regular) -19.00 ~ +16.75D (During XC or prism tests) (0.12/0.25/0.5/1/2/3/4D increments)
Cylinder Lens	0.00 ~ ±8.75D (0.25/0.5/1/2/3D increments)
Cylinder Axis	0° ~ 180° (1/ 5/ 15° increments)
PD	48 ~ 80mm (0.5/1mm increments) Near PD : 50 ~ 74mm Near Working Distance : 35 ~ 70cm
Rotary Prism Lens	0 ~ 20Δ (0.1/0.2/0.5/1/2Δ increments)
Cross Cylinder	±0.25D ±0.50D ±0.25D prism split lens (Dual Cross Cylinder)
Retinoscopic Lens	+1.5D, +2.0D (Measurement Distance 67cm, 50cm)

### Auxiliary Lenses

Occluding Aperture	-
Pinhole Lens	Ø2mm
Maddox Rod	Right Eye (Red, Horizontal), Left eye (Red, Vertical)
Red/Green Filter	Right Eye (Red), Left Eye (Green)
Polarizing Filter	Right Eye (135°, 45°), Left Eye (45°, 135°)
Split(dissociation) Prism	Right Eye (6Δ BU) Left Eye (10Δ BI : up to 5Δ complement)
PD Check Lens	-
Fixed XC Lens	(±0.50D, with the axis fixed at 90°)
Visual Field	40° (VD:12mm)

### Hardware Specification

Digital Refractor	368.7 (W) X 106.4 (D) X 345.5 (H)mm, 4.2kg
Operation Panel	216.4 (W) X 246.1 (D) X 230.2(H)mm, 1.9kg (including internal printer)
Junction Box	71 (W) X 240 (D) X 251(H)mm, 1.9kg
Power Supply	· Digital Refractor : 18V 1.5A · Operation Panel : 18V 2.5A, · Junction Box : 100~240 V~ 1.2~0.6A, 50/60Hz
POWER SUPPLY	100-240 V~ 1.5~0.6A 50/60Hz
B Type Applied Part	

\* Specification and design are subject to change without notice.



Huvitz 38, Burim-ro 170beon-gil, Dongan-gu, Anyang-si, Gyeonggi-do, 14055, Republic of Korea  
Tel : +82-31-428-9100 Fax : +82-31-477-8617 <http://www.huvitz.com>

D8XXCL-23-00001, 23.11.15, RevA