GDR-7000
DIGITAL REFRACTOR

Powered by up-to-date technologies, GDR-7000 by Gilras, enables easy and simple measurement of eyes through its one-touch system. The GDR-7000 seamlessly adapts to your practice with no additional investment required, allowing you to perform all the functions that a manual refractor can do while comfortably seated next to your patient.

The GDR-7000 features 18 visual acuity tests, 26 monocular & binocular tests and up to 35 user-defined tests. These features create the perfect refraction environment to perform binocular balancing, strabismus, heterophoria, fusion, suppression, aniseikonia, and stereo tests.

Advantages of the Auto Refractor vs. Manual Refractor:
• LESS manual labour by the practitioner or technician
• MORE automation of repetitive and iterative tasks in the refraction
• ABILITY to present former and new values quickly for validation
• REDUCED risk of human error
• DIRECT transmission of results to EMR software
• IMPROVED office efficiency
Features for Auto Phoropter

**Auto Phoropter**
The GDR-7000 body is the most important part of the Digital Refractor, and is installed in the unit body. Compare directly objective test results with subjective test results, through mode changes. The patient can compare and analyze them from various aspects, and make complementary correction between them, allowing the proper prescription for the patient.

**Interactive Menu System**
Easy operating environment adopting interactive system.

**New Compact & Sleek Design**
Compact design is inviting and allows for greater patient visibility with an Ultra slim lens profile that prevents the patient from experiencing tunnel vision.

**Powerful Dual Core Cylinder Lens**
Automatic occlusion function assists in precise and comfortable astigmatic testing by preventing accommodation while the lens is rotating over 45 degree or test mode is changing.

**Vertex Distance Check And Cornea Illumination**
Accurate tests are guaranteed by positioning the examinee’s eyes in the correct vertex distance through the vertex distance check window correctly before tests.

**Easy and Flexible PD Control**
From any mode, you can adjust the PD easily and conveniently. When the test mode is changing between far and near, the PD is automatically calculated and set.

**Perfect Automated Convergence & Quick Lens Conversion Speed**
During the presbyopia and near vision test, GDR-7000 provides perfect convergence function. This function makes the examinee’s eyes aligned with the center of lenses for precise measurements.

**Accurate Rotary Prism**
Precise data can be obtained by measuring fine increments up to 20 angles by 0.1 angle in step. Automatic occluding function option helps to perform precise and comfortable examination tests while the prisms are changing directions.

**Intuitive & Convenient & Well Organized Key Pad**
The GDR-7000 Provides over 200 different short-cut options and advanced functions according to the test modes within various situations. The intuitive keypad controls are easy to distinguish. Simply Combine SHIFT and ALT, buttons for one-touch operating environment.

The buttons play multiple functions according to tests and menu modes. Selection, Changing, and execution of menus or tests are faster in this environment.

The ESC Key provides a convenient function to return back to main examination mode, canceling a menu mode, or a test mode executed before.

**Preset Data Function**
The GDR-7000 enables users to preset examinee’s data while in any mode for immediate lens set up.
6.4-Inch Full Color LCD Monitor With Adjustable LCD Display
Built-in Color Operation Panel Monitor with a wider and cleaner screen on 6.4" TFT COLOR LCD to improve data recognition.
Operator always can see the screen by adjusting the LCD from 0 to 90 degree for better clarity.

GDR-7000 Is Equipped With The Largest Assortment Of Examination Methods Compared With Other Refractors.
Gilnas Digital Refractor, GDR-7000 provides precise and variable data while operating at high speed. Adopting this highly advanced digital technology, it ensures correct visual acuity tests by allowing the user to perform the sophisticated binocular tests, visual functions tests, the presbyopia (near vision) tests:
- 5 visual acuity tests
- 26 monocular and binocular (correction) tests
- 35 user-defined tests can be stored and edited

Test Process Programming
Maximum of 10 customized test processes can be programmed and saved with the detailed setting of unit test charts conversion, auxiliary lens inserting, fogging, chart masking, etc.

Simple Automated Eyes Examination System
Convenient system installation thru Junction box with one single cable connection amongst instruments.

Perfect Network & Data Management Connectivity
GDR-7000 can interlock various vision test devices with the one unified network. Perfect networking & data management among mirror chart, projector and refractor.

Computerized Vision Tester With Real Time Data & Well-Designed Ergonomic’s
The GDR-7000 is equipped with rapid visual acuity testing and well designed ergonomics.
Graphical representation displayed on screen guides test process easier & faster in real time.
The GDR-7000 also displays data in well organized tables and graphics for easy to understand results.

Operation Panel With A Built-In High-Speed Printer
Built-in printer on the operation panel makes accessing the printer more convenient and replacing paper at one-step process.
No additional connection devices are needed (Refractometer’s data and keratometer data can be shared in multiple CDR systems).
# GDR-7000 Specifications

## Measurement Mode

<table>
<thead>
<tr>
<th>Component</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spherical Lens</td>
<td>-29.00 ~ +26.75D (Regular)</td>
</tr>
<tr>
<td></td>
<td>-19.00 ~ +16.75D (Cross Cylinder or Prism test)</td>
</tr>
<tr>
<td></td>
<td>(0.125/0.25D/0.5D/1.00/2.00/3.00/4.00 increments)</td>
</tr>
<tr>
<td>Cylindrical Lens</td>
<td>0.00 ~ +8.75D (0.25D/0.5D/1.00/2.00/3.00/4.00 increments)</td>
</tr>
<tr>
<td>Cylinder Axis</td>
<td>0 ~ 180° (1°/5°/15° increments)</td>
</tr>
<tr>
<td>PD</td>
<td>48 ~ 80mm (0.5/1mm increments)</td>
</tr>
<tr>
<td></td>
<td>(Near working distance: 35 ~ 70cm)</td>
</tr>
<tr>
<td>Rotary Prism</td>
<td>0 ~ 20 (0.1/0.2/0.5/1/2 increments)</td>
</tr>
<tr>
<td>Cross Cylinder</td>
<td>±0.25D, ±0.50D, ±0.75D Dual Cross Cylinder (Split prism lens)</td>
</tr>
<tr>
<td>Retinoscope</td>
<td>+1.5D, +2.0D (Measurement Distance 67cm, 50cm)</td>
</tr>
</tbody>
</table>

## Auxiliary Lens

- Occluder
- Pin Hole Lens: Ø1mm
- 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 Prism: Right Eye: 6 BU, Left Eye: (10 BU: up to 5 complement)
- PD Check Lens
- Fixed Cross Cylinder: ≤0.50D, Fixed with the axis set at 90°

## Visual Angle

- 32° (Diameter 32mm)

## Dimensions

<table>
<thead>
<tr>
<th>Component</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refractor</td>
<td>445(W) x 255(D) x 133(H)mm 6.9kg</td>
</tr>
<tr>
<td>Controller</td>
<td>220(W) x 259(D) x 188(H)mm 1.3kg (Including Built-In Printer)</td>
</tr>
<tr>
<td>Junction Box</td>
<td>350(W) x 240(D) x 700(H)mm 2.2kg</td>
</tr>
<tr>
<td>Power supply</td>
<td>AC 110 ~ 120V / AC 220 ~ 240V 50 / 60Hz</td>
</tr>
<tr>
<td>Power consumption</td>
<td>110VA</td>
</tr>
</tbody>
</table>

Designs and details can be changed without prior notice for improvements.