

Human-Interface Design Digital Refractor
DR-900



- *Intuitive user interface*
- *Color touch-screen*
- *Quick & silent lens change*
- *linear AND circular polarization filters*



SHIN-NIPPON

Automated Vision Tester Shin-Nippon DR-900



Equipped with an IR unit

Can also interface with chart projector via infrared connection.



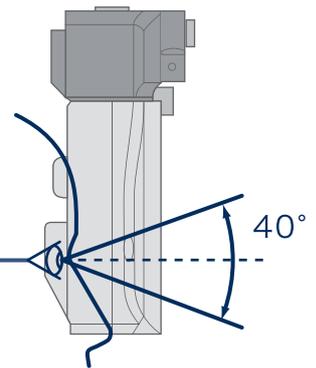
Near Point Chart

A near-point Chart for presbyopic eyes can be attached to the DR-900.



LED Illumination

The DR-900 incorporates LED illumination in the phoropter which illuminates the near-point chart and allows measurement in the dark.



Wide field of view

The slim head design achieves a brighter and wider field of view at 40°.



Highest Quality

Besides high grade mechanics and precise optics the DR-900 also offers an exceptionally **wide measuring range**.



Quick & Silent

The DR-900 rapid lens change is virtually silent which means you can refract more quickly and with **greater patient comfort**.



Hygiene

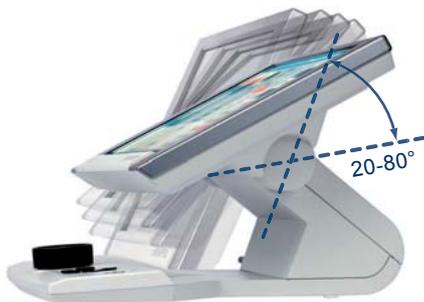
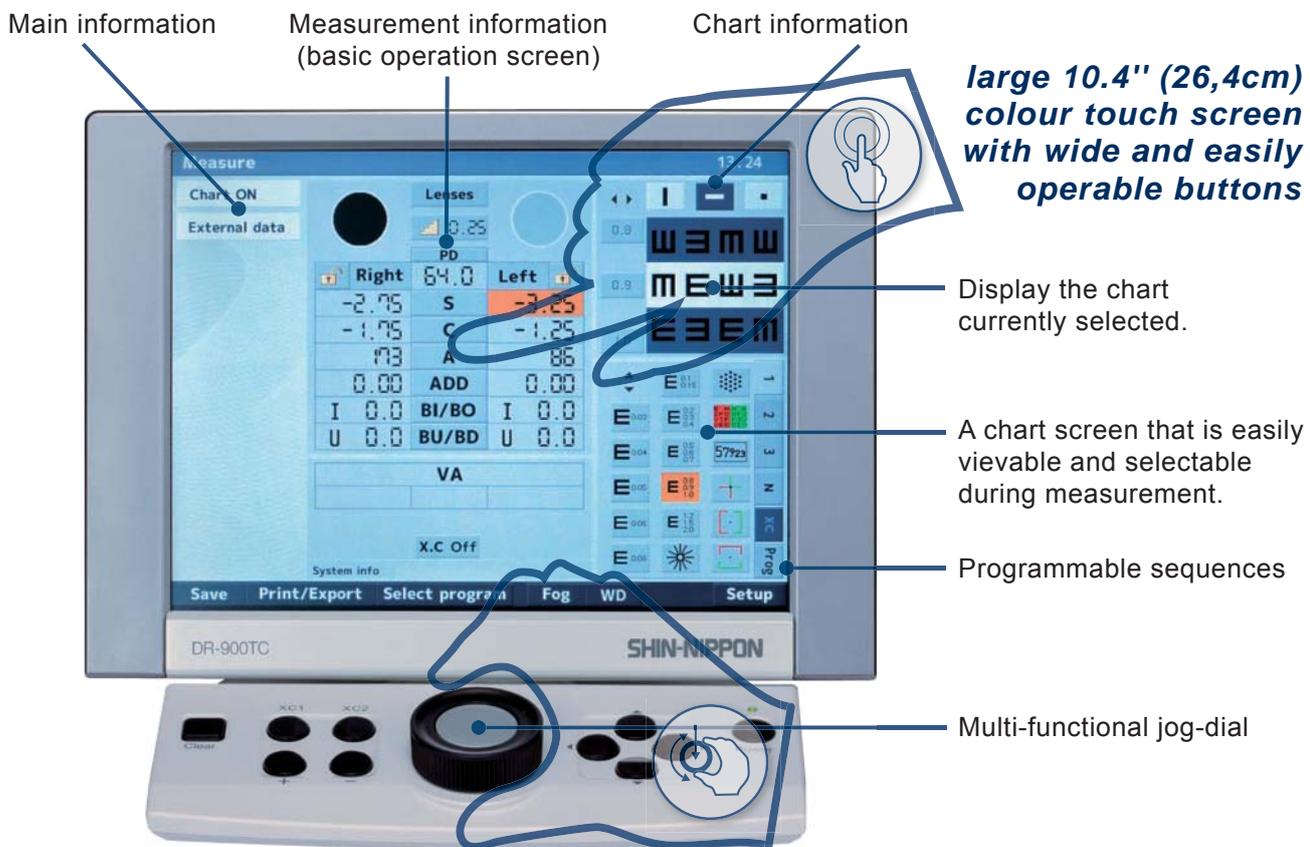
The face shields are made of soft and light materials. They are detachable so the head unit can easily be kept clean .

Slim - The optical head of the DR-900 has been designed to be very compact. The footprint is no larger than manual system.

Complete - The system provides you with all optical functions required for precise refraction, e.g. **time saving auto cross cylinders**.

Intuitive - The user-friendly layout and clear colour plan of the touch display guarantee fast and intuitive operation and optimized refraction workflow.

Ready for 3D - The DR-900 offers conventional linear polarization filters (45°/135°) as well as circular filters for modern „**3D refraction**“ procedures.



Free measurement position

The touch panel can be tilted up to 80 degrees. You can measure comfortably whether standing or sitting. The keyboard panel is designed to be slim to avoid interfering with operation.



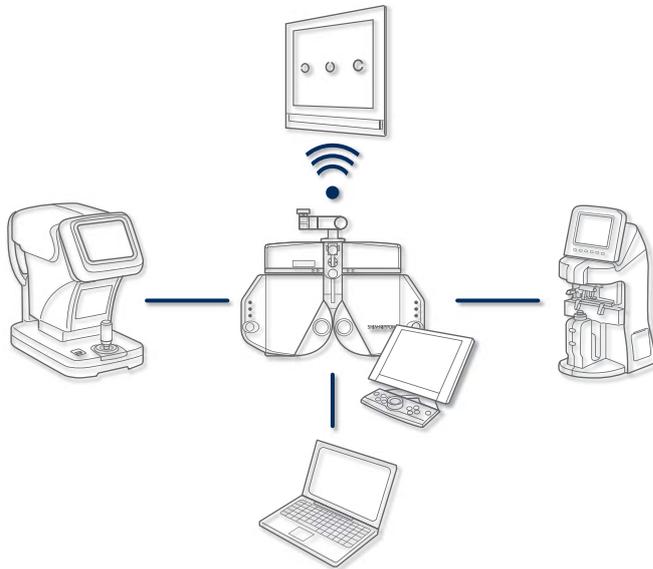
Compact body & printer

The printer is positioned at the rear to enable a **space saving** design. It also offers a practical automatic paper cutter. Paper can be changed easily.



Ergonomic jog dial / buttons

The intelligent jog dial lets you directly „select“, „adjust“ and „enter“. The buttons have special shapes to enable touch typing and to enhance the operational feeling in every detail.



Perfect Connection

The interface box connects the phoropter DR-900 with other refraction devices, such as autorefractor, lensmeter and chart display. It provides **maximum connectivity** with a small footprint: all connectors are facing to the same side



Specification DR-900

Sphere	- 28.75 D to + 27.25 D	
Steps	0.12 D / 0.25 D / 0.50 D / 1.00 D	
Cylinder	0 D to +/- 6.00 D	
Steps	0.25 D / 1.00 D	
Axis	0° to 180°	
Steps	1° / 5°	
PD	48.0 mm to 80 mm	
Steps	0.5 mm / 1 mm	
Prism	0 Δ to 20 Δ	
Steps	0.1 Δ / 0.5 Δ / 1 Δ	
Prism degree	0° to 360°	
Steps	1° / 5°	
Vertex distance	12 / 13.75 / 16 / 18 mm	
Cross cylinder	Auto cross cylinder +/- 0.25 D, +/- 0.25 D cross cylinder, +/- 0.50 D cross cylinder	
Auxiliary lenses	centering cross, occluder, pinhole (Ø 1 mm), polarization filters 45° and 135°, circular polarization filters, red maddox, (right eye horizontal, left eye vertical), red filter (right), green filter (left), dispersing prism (6 ΔBU right, 10 ΔBI left), retinoscopy lenses (+ 1,50 D / + 2,00 D)	
Printer	integral thermal line printer with automatic paper cutter	
Monitor	10.4 Inch (26.4 cm) colour LCD	
Dimensions	(WxDxH)	
Head	385 - 417 x 112 x 308 mm	
Controller	272 x 272 x 204 mm	
Relay Box	326 x 119 x 83 mm	
Weight	Head	ca. 5.3 kg
	Controller	ca. 2.5 kg
	Relay Box	ca. 2.4 kg
Rated supply	AC 100 to 240 V 50/60 Hz	
Power consumption	90 VA	