



# Matrix

MATRIX AUTOREFRACTOMETER: R-20+  
&  
MATRIX AUTOREFKERATOMETER: KR-20+



### Salient Feature :

Extra ordinary Japanese ARM processor with 21<sup>st</sup> century image processing algorithm and latest software are responsible for most accurate and fast measurement.

Dual CCD camera technology with 5.7 inch hi-resolution color LCD display.

Accurate & wide measurement range with Auto, Manual & IOL mode of operation.

Provides corneal curvature both in mm as well as in Diopter (Only in KR 20+)

Faster accurate reading with wider measuring area within small pupil.

On-Screen display of 10 measurements per Eye with PD & Average data for subjective test.

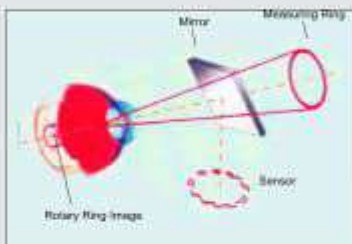
Compatible with Matrix Digital Auto Phoropter DAP-30+



# Autorefractometer : R 20+ Autorefractometer : KR 20+

With Advanced & Upgradable Software

Matrix an established & trusted brand in the field of Ophthalmology & Optometry since more than a decade. Innovative design, excellent quality & supported by best Post-sales-service have made the name most familiar amongst its users all over the world. Continuous in-house R&D have made all matrix products very user-friendly and upgradable at any point of time. Matrix Promises to provide the best technology at affordable price with unmatched durability, accuracy & truly maintenance free operations.



The unique ARM processor & the latest image processing algorithm are responsible for extremely accurate measurement. Also Automatic measurement mode eliminates manual operational errors.



Reliable & easy thermal paper with easy paper-loading feature provides feedback of measured data with various forms of print formats as desired by operator.



Compatible with Matrix Digital Auto Phoropter DAP-30+ (optional) through RS 232 communication port to transform it in to a complete Optometry system with Chart unit and Chart Projector.



Scientifically designed (bright colour scenic picture) fixation target & innovative Japanese optical path system with advanced autologging technology, provides more precise measurement against accommodation.



Clear & hi-resolution 5.7 inch colour LCD monitor with bright & eye-soothing colorful display of icons for easy identifications.



Regular autorefractometer per eye and astigmatism display the results in both RL and with Average & PEH objectives as required.



Smooth & easy movement with auto stop facility to prevent any damage to the eye during examination.



### Motorised Table (optional)

Elegant look, smooth movement Matrix Motorised table (MMT-100) for Refractometer & other Ophthalmic equipments. Also available Matrix heavy duty motorised table (MMDT-200) large top with drawer for trial set.

Technical Specifications : R20+ / KR 20+	
Refractive Measuring Range	Sph: +25D /Cyl : + 10D(0.12D or 0.25D step) Axis: 1~ 180 degree (1 degree step)
Keratometer Measurement Range (only with Autorefractometer :KR-20+ )Range	Radius of corneal curvature: 5.0~10mm(0.01mm step) Corneal Refraction:30.00D~67.00D(0.12D/0.25D step)(n=1.3375) Corneal Astigmatism:0~15.00D(0.12D/0.25D step)/Axis: 1°~180° Measurement Area: 3.16mm (R=7.7mm ) Corneal size measurement :2mm to 12 mm
Measurement Mode	Auto-quick 3/ Manual/IOL (selectable from Monitor)
Mode of operation	REF /KER/ R & K / IOL mode (As selected)
Vertex Distance	0,12,13,5 or 15 mm (selectable)
Min. Measurable Pupil Diameter	Ø 2.00 mm
Measurable Pupillary Distance(PD)	30 ~ 85 mm( 1 mm step), Automatic
Measurable cornea, IRIS & Pupil size	2.00mm ~12.00 mm, by adjusting the cursor on the image
Fixation Target	Scientifically designed auto-fogged scenic picture
Printer	Fast thermal printer with easy paper load facility
Internal Monitor	5.7inch hi-resolution colour LCD monitor
Shifting Range	Back & forth : ±19 mm, right & left : ±44 mm, Up & dn : ±19 mm, Chin & rest : ±30 mm,
Power Saving Function	OFF /5 min or 15 min(selectable)
Data Transmission	RS-232C interface (For Auto Phoropter & PC connection )
Power source / Consumption	110~240V AC, 50~60Hz / 50 VA or less
Dimensions / weight	288(W) X 500(D) X 480(H) mm/14 kg
Standard Accessories	Dust cover, Power cord ,Pair of Paper roll, Model Eye
Optional Accessory	Motorised Table, Interface cable, PD meter, Auto Phoropter:DAP- 30+



Also the heavy duty motorised table (MMDT-200) with smooth drawer for trial set fits an ideal and compact unit for small eye clinics. Ideal and space saving table for both SLIT lamp and Autorefractometer. A perfect choice of opticians where space is a big factor without compromising the quality of service.

Manufactured for matrix ophthalmic by NMORDC Ltd., PRC

Authorised Distributors :



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Design & Specifications are subject to change without notice as regular improvements are made to this product