

# TRS-5100

© TOTAL REFRACTION SYSTEM

The **TRS-5100** replaces the manual refractor and allows the doctor to control the refraction process through a keypad. With the TRS, the operator can remain comfortably seated throughout the entire exam, eliminating repetitive stress injuries. The TRS enhances the patient experience through a faster, more modern exam. The entire refraction process can be pre-programmed to increase staff efficiency and maximize patient flow. The TRS-5100 generates extremely accurate and reliable refractions, minimizes staff variables, eliminates transcription errors, while smoothly integrating with EMR systems.



## FEATURES

- Color touch screen
- Improved test and target design
- Intelligent cross cylinder
- Multiple near tests
- Tilt screen for near testing
- Near reading card lights built-in
- One touch toggle for “Quick Refract” sequence
- Ability to compare old Rx to subjective Rx at the push of a button



Marco communicates with most EMR companies. Call for details.

**MARCO**

THE LEADER IN VISION DIAGNOSTICS

# TRS-5100 Total Refraction System Specifications

## Measuring Range

<b>Sphere</b>	-29.00 to +26.75D (0.12D / 0.25D / 1D / 2D / 3D steps)
<b>Cylinder</b>	0 to ±8.75 D (0.25D / 1D / 2D / 3D steps)
<b>Axis</b>	0 to 180° (1° / 5° / 15° steps)
<b>PD</b>	48 to 80mm (far vision) 50 to 74mm (near vision) (0.5 / 1mm steps) 54 to 80mm (Far PD at which both batteries can converge)
<b>Rotary Prism</b>	0 to 20D (0.1 / 0.5 / 2D increments) 0 – 20D (0.5D, 1D, 2D steps)
<b>Auxiliary Lenses</b>	Occluder, Polarizing Lenses, Pin Hole (1mm), 10 base-in prism, Red Maddox Horizontal (right eye), 6 base-up prism, Red Maddox Vertical (left eye), Cross mark for P.D., Red Lens (right eye), .50 fixed cross cylinder, Green Lens (left eye), Retinoscopic Lens, (+1.5D, +2.0D)
<b>Refraction Distance for Near Vision</b>	350 to 700mm (50mm increments)
<b>Visual Field</b>	40° (VD = 12mm) 39° (VD = 13.75mm)
<b>Forehead Rest Adjustment</b>	15mm
<b>Vertex Distance</b>	12-20mm (12, 13.75, 16, 18, 20mm)

## General Information

<b>Horizontal Level Adjustment</b>	±2.5°
<b>Display</b>	8.4-inch color LCD with touch screen
<b>Power Supply</b>	AC 100 / 120 / 230V 50 / 60Hz
<b>Power Consumption</b>	120 VA

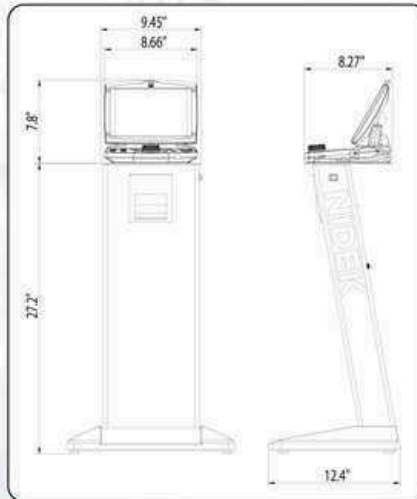
## Dimensions & Weight

W x D x H

<b>Main body</b>	15.94 x 4.0 x 10.86" / 12.8" with bracket / 7.7 lbs.
<b>Control box</b>	8.66 x 8.1 x 7.87" / 4.2 lbs.
<b>Relay box</b>	7.63 x 8.93 x 2.83" / 8.8 lbs.
<b>Printer</b>	4.0 x 3.38 x 4.76" / 0.66 lbs.
<b>RT Arm</b>	Electromagnetic lock, fully moveable up/down and back/forth



Manufactured by Nidek



```

ID: 1
NAME: JAN/6/2006 1:39 pm M/F
WD=40cm
--(R)--<UA>--<L)--
FAR
30 60
Unaided Acuties
--(R)--<LM>--<L)--
FAR
+ 0.25 SPH - 0.25
- 0.75 CYL - 1.25
159 AXS 19
Acuity with Glasses
< 25 > UA < 30 >
PD
62.0
--(R)--<AR>--<L)--
FAR
+ 1.25 SPH + 0.25
- 0.75 CYL - 1.00
159 AXS 9
Auto Refractor Readings
--(R)--<SUBJ>--<L)--
FAR
+ 1.25 SPH + 0.25
- 0.75 CYL - 1.00
159 AXS 9
Subjective Values
+ 1.25 ADD + 1.25
UA
Acuties < 15 > < 15 > < 20 >
PD
60.0
--(R)--<FINAL>--<L)--
FAR
+ 1.00 SPH + 0.25
- 0.75 CYL - 1.00
160 AXS 10
+ 1.25 ADD + 1.25
UA
< 15 > < 15 > < 20 >
NEAR
+ 2.25 SPH + 1.50
- 0.75 CYL - 1.00
160 AXS 10
UA
< 20 > < 20 > < 20 >
Keratometer Readings
--(R)--<RM>--<L)--
7.85 R1 7.81
43.00 R2 43.25
7.68 R2 7.55
44.00 AXS 44.75
171 AXS 160
Test time 3:17
NIDEK RT-5100
    
```

Measurement values are printed out for easy evaluation.

```

Phoria BO 2.50 PRSM BO 2.50
B 0.00 B 0.00
Divergence Div 5.00/ 6.00/ 4.00
Convergence Conu 8.00/13.00/10.00
NEAR
+ 2.50 SPH + 1.50
- 0.75 CYL - 1.00
159 AXS 9
UA
Near Acuties < 20 > < 20 > < 20 >
Near Phoria BI 1.50 PRSM BI 1.50
B 0.00 B 0.00
Near Point Convergence < NPC >
10cm 8.0MA 48.0prism
Near Point of Accommodation < NPA >
BIN: 20cm 3.75D
Negative Relative Accommodation < NRA >
BIN: +2.25/ -
Positive Relative Accommodation < PRA >
BIN: -2.50/ -
Fusion Check :
4(Fusion)
Stereo Check : 1°
Aniseikonia(U) : OK
Additional information can be printed.
NIDEK RT-5100
    
```

