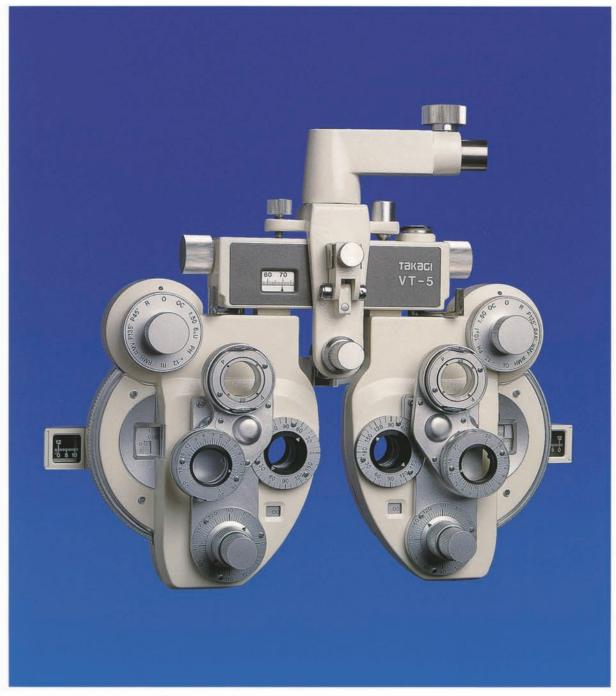




# OPHTHALMIC OPTICAL INSTRUMENTS

# MODEL VT-5



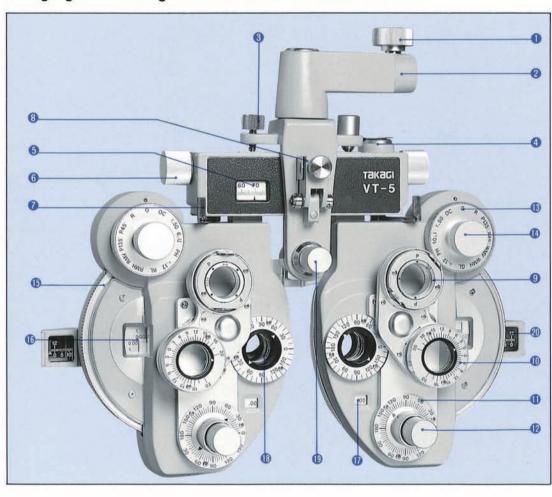
Aiming at new levels in quality

# VT-5 VIEW TESTER

We have drawn on our wide experience and vast amount of technical know-how accumulated in this field to develop a more precise and labor saving tester and its highest performance wins a greatest popularity among many users all over the world as well as in Japan.

# **OUTSTANDING FEATURES**

- 1. Attractive delicate, beautiful design.
- 2. The precise function of the instrument means smoother operation in testing for myopia and astigmatism.
- 3. Cross cylinder and rotary prism provide the widest field of view.
- 4. Employs an unique mechanism in convergence system.
- 5. Testing range greatly widened by the big selection of auxiliary lenses provided.
- 6. Greater precision and durability provided with the oilless bearings.
- 7. By using together with the chart projector, a wide range of visual function (binocular vision, stereopsis, aniseiconia, and so on) can be examined.
- 8. High-grade coating executed on all surfaces of lenses.



- Clamping knob
- Mounting shaft receiver
- Levelling knob
- 4 Level
- 6 Interpupillary scale
- 6 Interpupillary adjusting knob
- Convergence lever
- Near point scale receiver
- O Cross cylinder
- Rotary prism
- Cylinder lens axis control knob
- Cylinder lens power control knob
- Sphere power rapid feed dial
- Auxiliary lens control knob
- Sphere power control ring
- Sphere lens power reading window
- Cylinder lens power reading window
- Accessory lens cell
- Forehead rest adjusting knob
- Corneal aligning device

#### **SPECIFICATIONS**

Spherical power adjustment: +16.75D to -19.00D in 0.25D steps(in 0.125D steps when +0.12D auxiliary lenses are in use) +26.75D to -29.00D(when optional lenses are in use) Cylindrical power adjustment: 0 to -6.00D in 0.25D steps(in 0.125D steps when -0.12D auxiliary lenses are in use) 0 to -8.00D(when auxiliary lenses are in use)

: ±0.25D(synchronized with the axis of the cylinder lens) Cross cylinder Rotary prism : 0 to 20 prism diopters, with minimum 1△steps

Interpupillary adjustment : 48mm to 80mm(right and left synchronized), with minimum 1mm steps

Forehead-rest adjustment : 16mm

: OO to 400mm

: 291-323mm wide X 315mm long X 85mm thick(including knobs ; 39mm for instrument only) **Dimensions** 

Weight Accessories

Convergence

: Auxiliary lenses(cylinders: -2.00D/2pcs, -0.12D/2pcs); A kit of near point vision chart; Sanitary face shield, 1 each right and left; Others

#### **Built-in Auxiliary Lenses**

Right: (O)Open Aperture/(OC)Occluder/(±.50)±0.50D Cross Cylinder/(6△U)6 Prism Diopter, Base Up/(PH)Pin Hole/(+.12)+0.12D Auxiliary Lens/(RL)Red Filter/(RMH)Red Maddox Rod, Horizontal/(RMV)Red Maddox Rod, Vertical/(P135\*)Polarizing Filter, Axis 135\*/(P45\*)Polarizing Filter, Axis 45\*/(R)Retinoscopic Lens, +2.00D, for 50cm

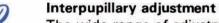
Left : (0)Open Aperture/(OC)Occluder/(±.50)±0.50D Cross Cylinder/(10△I)10 Prism Diopter, Base In/(PH)Pin Hole/(+.12)+0.12D Auxiliary Lens/(GL)Green Filter/(WMH)White Maddox Rod, Horizontal/(WMV)White Maddox Rod, Vertical/(P45\*)Polarizing Filter, Axis 45\*/(P135\*)Polarizing Filter, Axis 135\*/(R)Retinoscopic lens, +2.00D, for 50cm



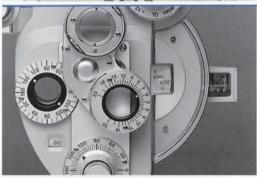


# Level adjustment

Level adjustment can be made easily in one-touch operation by using the levelling knob and level.



The wide range of adjustment of 48mm through 80mm and easy to read scale in 1mm graduation. Convenient knobs, located on both side, enable smooth and rapid adjustment.





## **Adjusting Sphere Power Readings**

Adjustment can be made exactly from -19.00D to +16.75D in 0.25D steps and the sphere power rapid feed dial allows rapid eye examination per  $\pm 3.00D$ . With accessory lenses, it is possible to read upto  $\pm 0.12D$ . Also, the auxiliary lenses  $\pm 10.00D$  (option) are available to extend adjustment range upto  $-29.00D \sim +26.75D$ .





#### Adjusting Cylinder Power and Axis

The cylinder lens graduated in 0.25D steps allows adjustment upto  $0\sim-6.00D$  and with accessory lens -2.00D, it is possible to extend adjustment range upto -8.00D. The cylinder axis can be adjusted upto  $0^\circ\sim180^\circ$  in  $5^\circ$  steps. Each adjustment can be made rapidly with two knobs on the same axis.





## Cross Cylinder (±0.25)

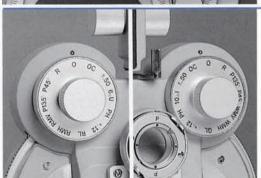
The cross cylinder loupe, through a special mechanism synchronized completely with the cylinder lens axis control knob, automatically rotates to a corresponing axis each time you change the cylinder lens axis.





#### Rotary Prism

The readings can be taken accurately upto  $20\triangle$  in  $1\triangle$  scale graduation. Also, the click stop permits you to measure horizontal and vertical strabismus and heterophoria. Using both prism of right and left makes you possible to take readings upto  $40\triangle$  and test eye balance.





# **Built-in Auxiliary Lenses**

(Right)

0 :Open aperture

0C :Occluder

±.50 :±0.500 cross cylinder

6△U :6 prism diopter base up

PH :Pin hole

+.12 :+0.120 auxiliary lens

RL :Red filter

RMH :Red maddox rod, horizontal

RMV :Red maddox rod, vertical

P135 :Polarizing filter, axis 135\*

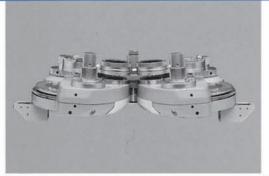
:Polarizing filter, axis 45

for 50cm

:Retinoscopic lens, +2.00D,

(Left)

O :Open aperture
OC :Occluder
±50: ±0.50D cross cylinder
10 △1:10 prism diopter base In
PH :Pin hole
+.12:+0.12D auxiliary lens
GL :Green filter
WMH :White maddox rod, horizonal
WMV :White maddox rod, vertical
P45':Polarizing filter, axis 45'
P135':Polarizing filter, axis 135'
R :Retinoscopic-lens, +2.00D,
for 50cm





## Convergence System

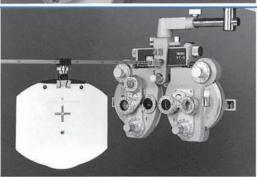
Precision measurement is possible with lens setting to suitable angle for near testing (by closing the convergence lever inward) as well as distance (by opening it outward). This converges the optical system coincident to the convergence of the patient's eyes and the patient can always look through the correct optical centers. Thus, this unique system insures perfection in testing.





# **Corneal Aligning Device**

Through the sight, align the corneal vertex of the patient and set the patient's cornea in correct position (at 12 mm from the view tester lenses). Measurement should be made at "0" position of the scale.





#### **Near Point Scale and Chart**

The scale is graduated in "Inch", "Centimeter" and "Diopter". It can be set at distance you like for use and when not in use, it can be stored in standing position. The Near Point Chart contains a rotatable disc with 12 kinds of tests at both side. The scale is 67cm in length.





#### **Forehead Rest**

The knob adjusts distance between cornea and lenses and makes positioning of the patient's forehead very smooth.





#### Accessory Lenses

-0.12C-----2 pcs/-2.00C-----2 pcs +10.00S.....2 pcs/-10.00S.....2 pcs

The design and specifications may differ from those in this catalog due to constant improvement of the product.





