3 p.d. Bekontaktinis tonometras su pachimetru

CT-1P

Computerized Tonometer

TOPCON

YOUR VISION. OUR FOCUS.

Function & aesthetics combined in the CT-1P

The next generation of tonometry

The CT-1P is more stylish and more compact than ever before. The flexible control panel enables the CT-1P to be installed in many different positions in the examination room. The CT-1P provides an innovative operation experience and eliminates the need for a control lever. By combining it with the Topcon Kerato-Refractometer CT-1P built with the same concept, you will save space in your examination room. The air-puff mechanism ensures a soft air-puff and requires less maintenance and cleaning. The CT-1P is an innovative and high quality non-contact tonometer.

3.1 ir 3.4 p. Bekontaktis;

Features

Simple and quick operation

- R/L fully automated measurement
- Easy-to-use touch screen control panel eliminates the need for control lever
- Additional measurement mode

Flexible and space saving layout

- The adjustable control panel can be positioned in any direction
- Compact body

Reliable measurements

- New ergonomic optical head and headrest design
- Stable IOP measurement with soft air-puff
- Corneal thickness measurement for IOP compensation


TOPCON
COMPUTERIZED TONOMETER
CT-1P

Unique features of the CT-1P

3.12 p. Aktyvuojamas vienu mygtuko paspaudimu: surandantis dešinę/kairę akį, fokusuojantis, išmatuojantis akispūdį ir ragenos storį tiek kartų kiek yra nustatyta, atspausdinantis rezultatus.

3.16 p. Pasmakrio laikiklis

CT-1P Fully automated with touch screen

The CT-1P takes automated operation to a new level. Simply touch the center of the pupil on the touch screen control panel and the CT-1P automatically obtains right and left eye information immediately. The CT-1P provides an innovative operation experience and eliminates the need for a control lever.

Fully automated! Just touch the center of the pupil

Start

Right eye Automatic R > L Movement Left eye

Data printout

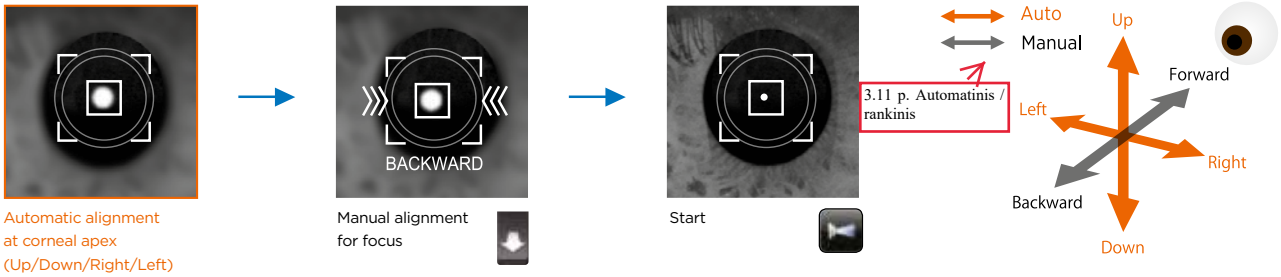
3.12 p. išmatuojantis akispūdį ir ragenos storį tiek kartų kiek yra nustatyta

Additional measurement mode

The additional measurement mode will save time and prevent extra work and inconvenience. The CT-1P will continue to measure until the required preset IOP measurement count is obtained.

Manual mode

If required, the CT-1P can be set in a manual mode as well. Once the CT detects the pupil position, the movement will retain automated alignment and you simply press the Start button to begin the measurement.

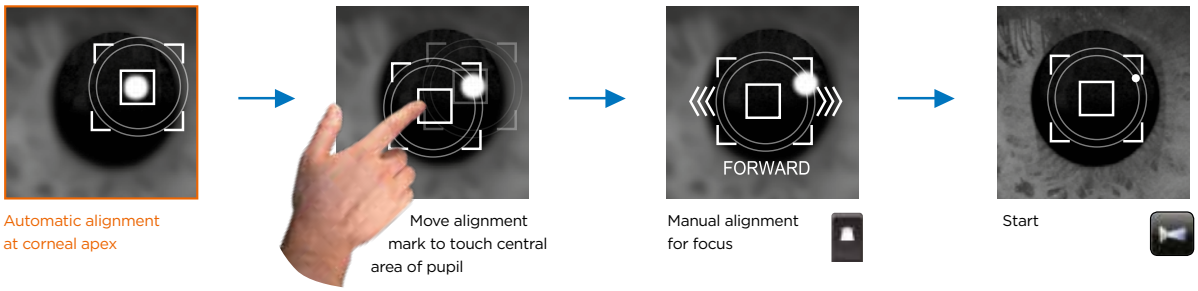


Automatic alignment at corneal apex (Up/Down/Right/Left)

Manual alignment for focus

Start

The difference between the pupil center and the corneal apex allows the CT-1P to easily take measurements.



Automatic alignment at corneal apex

Move alignment mark to touch central area of pupil

Manual alignment for focus

Start

Easy-to-use color touch screen control panel

All operating procedures can be performed with the touch screen control panel. The sophisticated buttons provide an intuitive operator experience. The CT-1P automatically takes measurement of the right and left eyes quickly and easily.

3.10 p. Yra Kairės/Dešinės akies automatinis atpažinimas ir rodymas

3.18 p. Yra automatinis išsijungimo režimas

CT-1P features

wall set up / behind patient

Flexible and space saving lay out

The adjustable touch screen control panel enables the operator to be positioned anywhere around the patient because the control panel can be faced in a number of different directions. The CT-1P can be positioned in a conventional set up, against a wall, or even in a corner of a room.

The compact body enables the operator to support the patient easily from many different positions during measurement, even when the patient's eye lid needs to be opened. These unique aspects will contribute to space saving and flexible layout in your eye examination room.

3.9 p. Reguliuojamas monitoriaus pasvirimo ir pasukimo kampas apie vertikalią ir horizontalią ašis, kad galima būtų prietaisą valdyti iš bet kokios pusės.

classic / conventional set up

corner set up

3.15 p. Prietaisas valdomas iš bet kurios pusės, įskaitant ir valdymą iš šono ar paciento pusės.

Conventional position (seated)

Front position (seated)

NEW Style (standing)

Ergonomic operation in standing position

NEW Style corner position

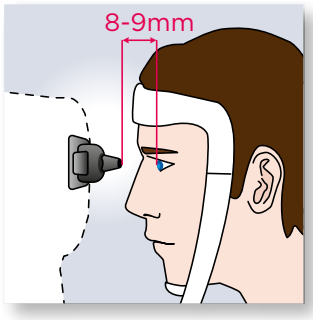
Side position

NEW Style wall position

Rear position

CT-1P features

3.14 p. informuojanti apie pernelyg mažą atstumą tarp prietaiso ir ragenos, su galimybe nustatyti norimą saugos atstumą.



Safety functions

The CT-1P incorporates new safety functions which have been designed in a fully automated style. The instrument features an innovative safety function to keep the preset distance (ex. 8 - 9 mm) manually between the cornea and the nozzle, in addition to the "TOO CLOSE" notification on the screen and a buzzer alert if the cornea and the instrument are too close.

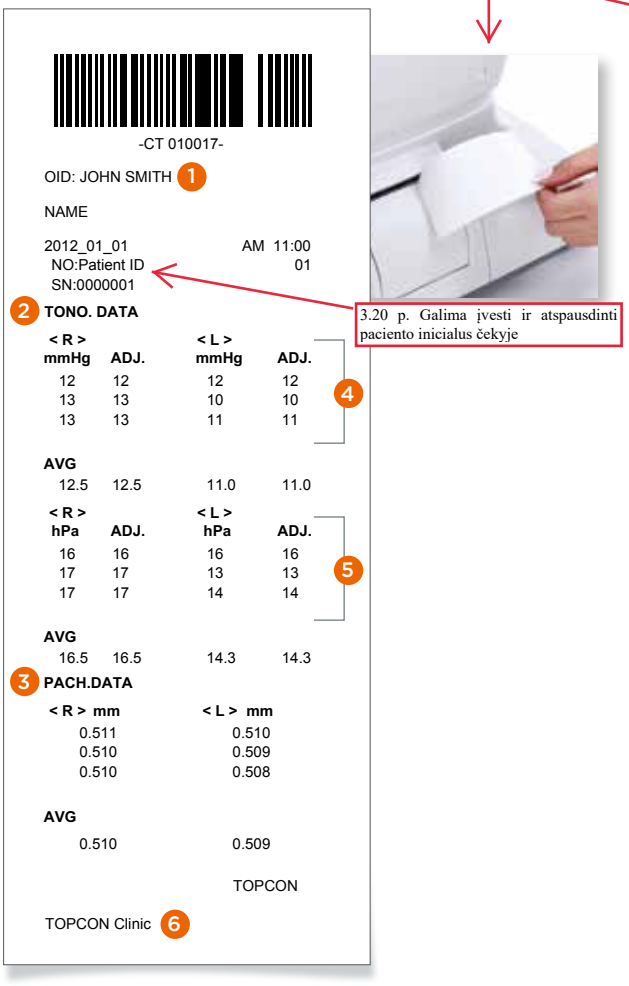
The safety distance can manually be adjusted very quick and easy. Each patient and each eye need to be adjusted before measurement.

Reduced nozzle maintenance

The nozzle design of the CT-1P helps to prevent dust and debris from entering the chamber. This significantly reduces the need for cleaning and maintenance.

(Ex.)

3.19 p. Integruotas spausdintuvas



3.20 p. Galima įvesti ir atspausdinti paciento inicialus čekyje

Built in printer

The CT-1P is equipped with a built in thermal printer that can be easily loaded with a roll of paper. The CT-1P cuts the paper automatically at the end of printing.

1. Operator ID
2. Measured value of intraocular pressure
3. Measured value of central corneal thickness
4. Measured value displayed in "mmHg" units
5. Measured value displayed in "hPa" units
6. Message column

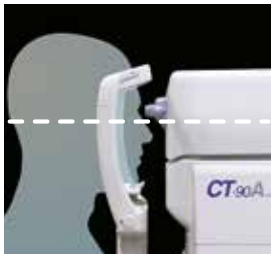
CT-1P features

3.13 p. Matavimui atlikti būtinas oro kiekis yra kontroliuojamas ir valdomas kiekvieno matavimo metu.

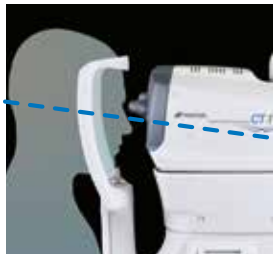
Soft air puff

The soft air puff used for measurement leads to less stress and more comfort for a patient and better compliance during the measurement procedure.
The improved software controls the amount of air required for each individual eye.

Ergonomic optical head and headrest design

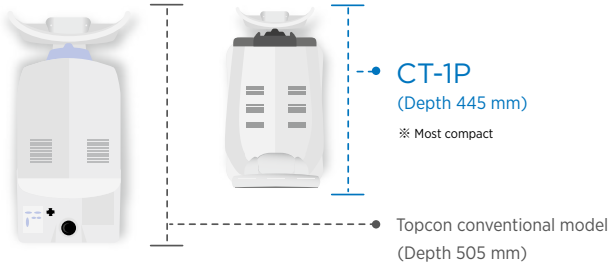


Topcon conventional model



CT-1P

Compact Body



Compact ergonomic design

The CT-1P provides a more comfortable position for the patient due to the fixation target on a 5° downwards angle and the improved chinrest design. The compact body enables the operator easier acces to the patient and therefore better interaction with the patient.

Topcon Imaging and database software.

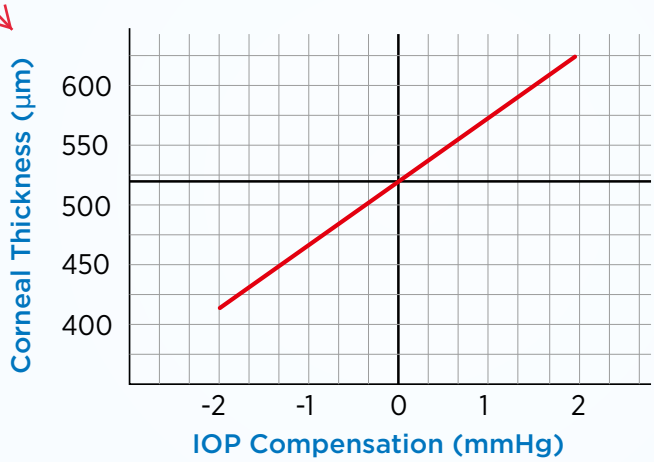
Connectivity

The CT-1P can be integrated into the Topcon Imaging and database software.
This software enables easy and fast access to patient data and is a useful tool to maintain customer contacts.

Corneal thickness measurements

The CT-1P provides compensated IOP values with central corneal thickness (CCT). Studies show that the CCT could affect IOP measurements, for example IOP values measured using a conventional tonometer are higher in eyes with a thicker cornea, and the diagnosis of normal tension glaucoma can also be affected by thin CCT.

3.7 p. Yra pagal ragenos storį kompensuoto akispūdžio paskaičiavimas



Corneal thickness / IOP compensation

* The formula can be individually adjusted.

Reference: Suzuki S, et. al. "Corneal thickness in an ophthalmologically normal population." *Ophthalmology*. 2005, Aug;112(8):1327-36.

Specifications

Ocular pressure measurement **Measuring range**	1 to 30 mmHg / 1 to 60 mmHg (1 mmHg step) Average indication: 1 mmHg / 0.1 mmHg steps changeable
Corneal thickness measurement **Measuring range**	0.4 to 0.75 mm (0.001 mm step)
Monitor	8.5 inch WVGA color LCD monitor, touch panel
Data transport terminal	USB (Import), RS232C (Export), LAN (Export)
Dimensions	286 - 326 mm (W) x 445 - 526 mm (D) x 466 - 615 mm (H)
Weight	19.5 kg
Power supply	100 - 240V AC, 50 - 60Hz, 75VA

3.2 p. Dviejų diapazonų:
1) iki 30,0 mmH
2) iki 60,0 mmHg, pasirinktinai.

3.3 p. Akispūdžio matavimo žingsnis 1,0 mmHg

3.5 p. Ragenos storio matavimo diapazonas 0,4÷0,75 mm

3.6 p. Ragenos storio matavimo žingsnis 0,001 mm

3.8 p. Liečiamas, 8,5 colių įstrižainės, WVGA raiškos, spalvotas monitorius

3.17 p. RS-232C jungtis, USB, LAN

3.22 p. iš ~220V 50Hz elektros tinklo

System chart

Computerized Tonometer
CT-1P

Ophthalmic data system
IMAGEnet®

Other filing system

* Contact Topcon subsidiaries or dealers for system configurations.

IMPORTANT

Subject to change in design and/or specifications without advanced notice.
In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.
Medical device Class IIa. Manufacturer: Topcon Corporation.

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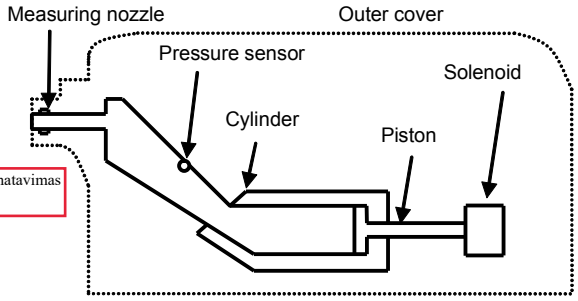
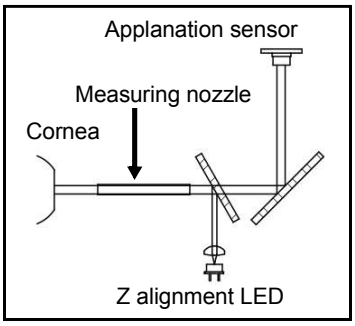
DIMENSIONS AND WEIGHT

Dimensions : 286~326mm (W) × 445~526mm (D) × 466~615mm (H)
Weight : 19.5kg

OPERATION PRINCIPLE

Ocular Pressure Measurement:
By ejecting air from the measuring nozzle to the cornea, detect by a pressure sensor the internal cylinder pressure required for the cornea to reach a prescribed deformed state (with a certain plane area), and calculate the ocular pressure value by computing. Irradiating the cornea by near infrared light using a Z alignment LED, receive the reflected beam by an applanation sensor and detect the cornea reaching a prescribed deformed state (with a certain plane area).



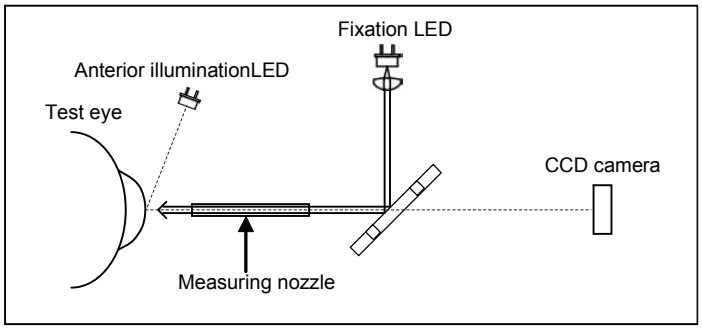


3.4 p. Ragenos storio matavimas kartu su akispūdžiu.

Cornea Thickness Measurement (only in CT-1P):
The slit light is projected onto the patient eye at a slant, and the corneal thickness is measured in reflected light from the corneal surface and corneal endothelium.

Auto Mode:
By illuminating the cornea using an XY alignment LED and a Z alignment LED, compute the reflected cornea image information received by the CCD camera unit and detect positions of the cornea and instrument. Based on the detected information, drive the X-axis drive motor, Y-axis drive motor and z-axis drive motor and move the main body to a position suitable for measurement. Detect that the main body is placed at a position suitable for measurement, measure the ocular pressure.
After finishing the measurement one eye, the main body, running the previously set distance, moves to the other eye, and starts detecting the positions of the cornea and instrument.
*In the case of manual mode, operations of main body movement and ocular pressure measurement are done by tapping the buttons displayed as software on the control panel.

Observation and Fixation Target Projection:
Illuminating the test eye by near infrared light using an anterior illumination LED, display the image received by the CCD camera unit on the control panel. Provide a visible light by a fixation LED, and the patient/examinee looks it as a fixation target through the measuring nozzle.



Electrical table

3.21 p. Reguliuojamo aukščio elektrinis staliukas tonometrui pastatyti

Technical information

Height	Min 630 mm Max 810 mm
Table top size	560 mm x 480 mm
Elevating speed on full load	15 mm/s
Lifting capacity	55 kg
Weight	21 kg
Height adjustment mechanism	Electrical
Height adjustment control	UP/Down swiches
Castors with lock	4 unit
Power supply	AC 200 V - 240 V ~50 Hz