



APPLANATION TONOMETER USER'S MANUAL

EQ-6703

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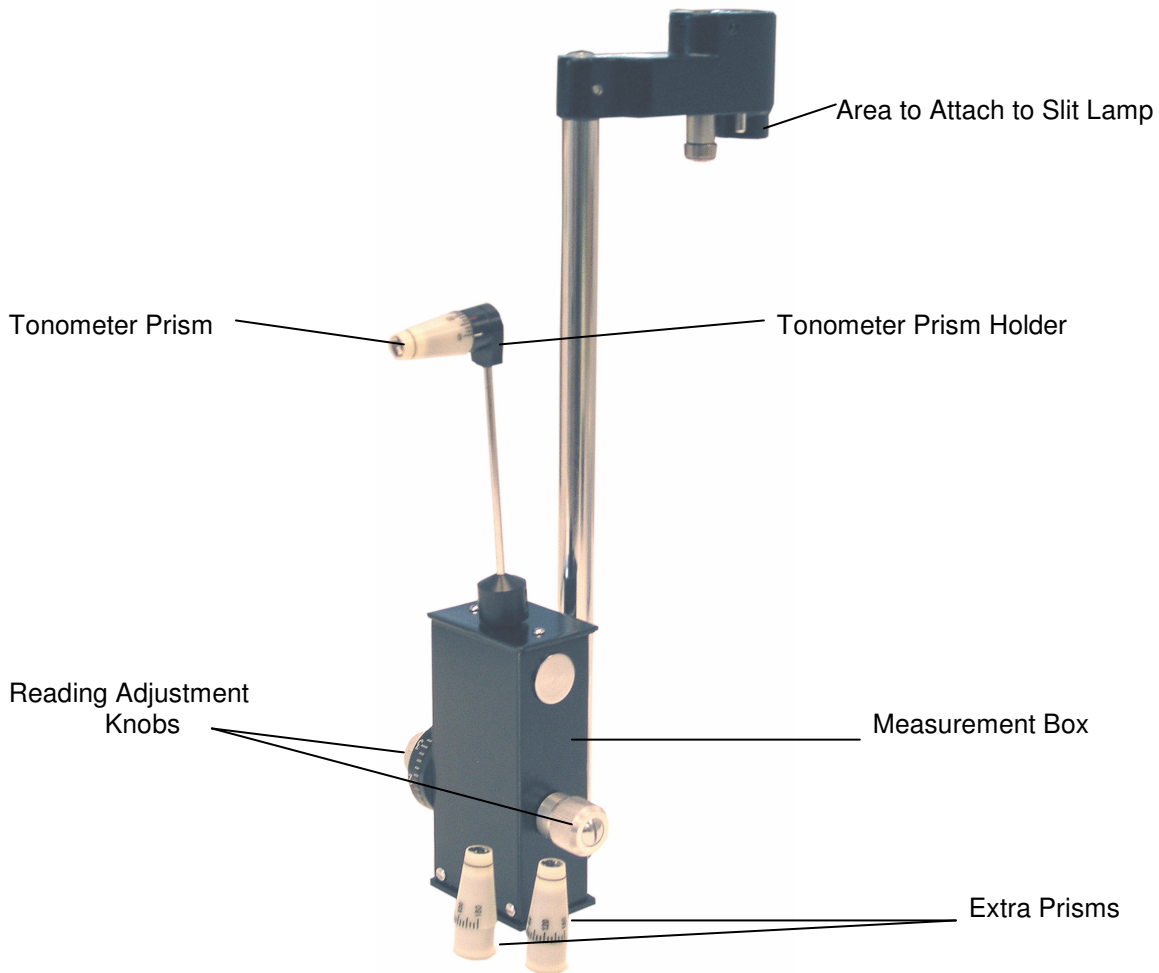
GENERAL SAFETY REQUIREMENTS

Please read the following warnings carefully to avoid injury as well as to not damage the instrument.

WARNINGS

1. Do not use the instrument under flammable, explosive, or dusty environments. Keep it clean and dry. Avoid high temperatures.
2. In case of trouble with the instrument, first read the manual for troubleshooting to problem. If this does not solve the problem, contact an authorized ophthalmic equipment service repairperson.

1. PARTS OF THE APPLANATION TONOMETER



2. ASSEMBLY

All parts should be removed from packaging with great care in order to avoid damaging the instrument. Insert the tonometer prism holder into the hole on top of the measurement box. Place the area to attach to the slit lamp on the bar on top of the accessories mount area (above magnification selection dial). Insert disinfected tonometer prism into the tonometer prism holder.

3. PREPARING TO MEASURE INTRAOCULAR PRESSURE

Equipment Preparation

Disinfecting the Tonometer Prism: Remove prism from holder. Rinse prism under running cold water to remove fluorescein and tears. Soak tip in 3%

hydrogen peroxide solution for 10 minutes. Rinse again thoroughly under running cold water to remove all peroxide. Dry with a clean tissue or let air dry. Return to holder.

Aligning Slit Lamp: Angle between the illumination arm and microscope should be a 40 to 60° angle. Open the slit diaphragm to an 8mm round light spot. Switch the filter to cobalt blue so that the yellow-green fluorescein can be seen clearly.

Patient Preparation

Instill a topical anesthetic and a fluorescent dye to the patient's eyes. Suggested pharmaceuticals include a fluorescein/benoxinate combination drop or a fluorexon/benoxinate combination drop. The doctor may instead choose to instill anesthetic drop (such as 1% proparacaine) and apply a fluorescein strip.

4. MEASURING INTRAOCULAR PRESSURE

Adjust the prism so that the marks associated with 0 and 180 align with the white marks on the prism holder. Position the patient's head against the forehead rest and the chin on the chin rest of the slit lamp. Instruct the patient to look forward or past the doctor's shoulder. If necessary, the doctor can assist in holding the patient's eyelids, being careful not to press on the eye.

Insure that the reading adjustment knob is set on 0. Move the slit lamp and tonometer slowly towards the eye, so that the prism tip just touches the center of the cornea. Watch through the oculars at the two small semicircle mires (Fig. 1). Turn the reading adjustment knobs to increase the pressure on the cornea until the two semicircle mires just overlap with one another (Fig. 2).

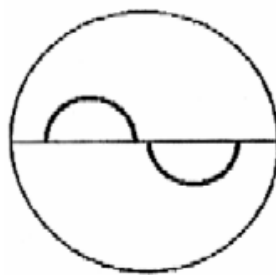


Fig. 1

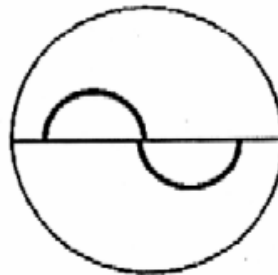


Fig. 2

Remove the prism from the patient's eye. Multiply the number from the reading adjustment knob by ten to get the IOP reading in millimeters of mercury (mmHg). Repeat on the other eye.

5. REASONS FOR ERRORS IN MEASURING INTRAOCULAR PRESSURE

PROBLEM	SOLUTION
Thick Mires	Have the patient blink to remove some fluorescein and measure again. Also wipe the prism tip with tissue.
Thin Mires	Add more fluorescein and measure again.
Only half of each mire is in view	Too much pressure on the cornea. Pull back slit lamp and measure again.
Mires are not semicircles; one mire is higher or lower than the other.	Pull back slit lamp and readjust height so the prism is centered vertically on the cornea.
Mires are not centered horizontally	Pull back slit lamp and readjust height so the prism is centered horizontally on the cornea.

6. MAINTENANCE

Protecting the Instrument

This instrument has been calibrated before leaving the factory. Do not disassemble the instrument. The instrument should be used in a clean environment.

Protecting the Tonometer Prism

Only clean the prism with 3% hydrogen peroxide. Do not use alcohol or acetone, which can wear down the prism surface over time. Do not use UV light to disinfect or sterilize the prism. Do not exceed temperatures of 60°C.

Cleaning

Clean the Applanation Tonometer only with a water dampened cloth, use soap only. Do not immerse Tonometer in solution, or corrosive agents. No direct spraying.

7. SPECIFICATIONS

Range of Measurement	0-80 mmHg
Movement of Light Circle	$1.53 \times 2 = 3.06\text{mm}$
Prism Diameter	7mm
Prism Range of Movement	3mm
Weight:	300g
Size:	190 x 80 x 80 mm