CT210

Contact Applanation Tonometer

User's Guide



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Caution: Federal law restricts this device to sale by or on the order of a licensed physician. Rx only.

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Warnings & Cautions

Warnings and Cautions

Reichert Technologies (Reichert) is not responsible for the safety and reliability of this instrument when:

- Assembly, disassembly, repair, or modification is made by unauthorized dealers or persons.
- Instrument is not used in accordance with this User's Guide.



WARNING: AN INSTRUCTION THAT DRAWS ATTENTION TO RISK OF INJURY OR DEATH.

WARNING: UNITED STATES FEDERAL LAW AND EUROPEAN REGULATIONS REQUIRE THAT THIS DEVICE BE PURCHASED ONLY BY A PHYSICIAN OR A PERSON ACTING ON BEHALF OF A PHYSICIAN.

WARNING: THIS INSTRUMENT SHOULD BE USED IN STRICT ACCORDANCE WITH THE INSTRUCTIONS OUTLINED IN THIS USER'S GUIDE. THE SAFETY OF THE OPERATOR AND THE PERFORMANCE OF THE INSTRUMENT CANNOT BE GUARANTEED IF USED IN A MANNER NOT SPECIFIED BY REICHERT TECHNOLOGIES.

WARNING: DO NOT REPAIR OR SERVICE THIS INSTRUMENT WITHOUT AUTHORIZATION FROM THE MANUFACTURER. ANY REPAIR OR SERVICE TO THIS INSTRUMENT MUST BE PERFORMED BY EXPERIENCED PERSONNEL OR DEALERS WHO ARE TRAINED BY REICHERT OR SERIOUS INJURY TO THE OPERATOR OR PATIENT MAY OCCUR.

WARNING: MODIFICATIONS TO THIS INSTRUMENT ARE NOT ALLOWED. ANY MODIFICATION TO THIS UNIT MUST BE AUTHORIZED BY REICHERT OR SERIOUS INJURY TO THE OPERATOR OR PATIENT MAY OCCUR.

WARNING: IF THIS INSTRUMENT IS MODIFIED, APPROPRIATE INSPECTION AND TESTING MUST BE CONDUCTED TO ENSURE CONTINUED SAFE USE OF THIS INSTRUMENT.

WARNING: AVOID USING THE CT210 IN CASES WHERE EYE INFECTIONS OR INJURED CORNEAS ARE PRESENT.

WARNING: EXAMINATIONS SHOULD BE CONDUCTED USING ONLY CLEAN AND DISINFECTED MEASUREMENT PRISMS. MEASUREMENT PRISMS ARE NOT SHIPPED IN A DISINFECTED STATE AND SHOULD ALWAYS BE DISINFECTED BEFORE EACH USE, FOLLOW THE DISINFECTING AND CLEANING GUIDELINES INDICATED IN THIS MANUAL. INCORRECT MEDICAL DISINFECTING CAN CAUSE PATIENT INJURY.

WARNING: BEFORE EACH USE THE CONTACT SURFACE OF THE MEASUREMENT PRISM SHOULD BE EXAMINED UNDER MAGNIFICATION FOR CONTAMINATION OR DAMAGE (SUCH AS SCRATCHES, CHIPS, OR SHARP EDGES). DO NOT USE THE PRISM IF THE TIP IS CRACKED, CHIPPED, OR SHOWS ANY IRREGULARITY OF THE SURFACE, TO PREVENT PATIENT INJURY OR INACCURATE READINGS.

Warnings & Cautions (continued)

WARNING: ONLY QUALIFIED OPERATORS MAY OPERATE THE CT210. OPERATOR TRAINING IS THE RESPONSIBILITY OF THE EQUIPMENT OWNER. THE CT210 TONOMETER SHOULD BE USED IN STRICT ACCORDANCE WITH THE INSTRUCTIONS OUTLINED IN THIS USERS GUIDE. THE SAFETY OF THE PATIENT AND THE PERFORMANCE OF THE INSTRUMENT CANNOT BE GUARANTEED IF USED IN A MANNER NOT SPECIFIED BY REICHERT TECHNOLOGIES.



CAUTION: AN INSTRUCTION THAT DRAWS ATTENTION TO THE RISK OF DAMAGE TO THE PRODUCT.

CAUTION: AVOID COLLISION WITH OTHER EQUIPMENT.

CAUTION: DO NOT AUTOCLAVE OR DISINFECT USING HIGH TEMPERATURES EXCEEDING THE RECOMMENDED TEMPERATURES INDICATED IN THE SPECIFICATIONS SECTION OF THIS MANUAL OR DAMAGE TO THE UNIT MAY OCCUR.

CAUTION: DO NOT USE SOLVENTS OR STRONG CLEANING SOLUTIONS ON ANY PART OF THIS INSTRUMENT AS DAMAGE TO THE UNIT MAY OCCUR. SEE MAINTENANCE SECTION FOR DETAILED CLEANING INSTRUCTION.

CAUTION: FEDERAL LAW RESTRICTS THIS DEVICE TO SALE BY OR ON THE ORDER OF A PHYSICIAN OR PRACTITIONER.

Symbol Information

Symbol Information

The following symbols appear on the instrument:



Caution symbol indicating important operating and maintenance instructions that are included in this User's Guide



Manufacturer



YYYY-MM-DD

Date of Manufacture

REF Catalog Number

SN Serial Number



Compliance to Medical Device Directive 93/42/EEC



Consult Instructions for Use symbol indicating important operating and maintenance instructions that are included in this User's Guide



Keep Dry - Package shall be kept away from rain



Fragile Contents in Shipping Container - handle with care



Authorized Representative in European Community

Introduction

Congratulations on your purchase of the Reichert CT210 Contact Tonometer. The CT210 Contact Tonometer is to be used in conjunction with a slit lamp in order to measure the intraocular pressure of the human eye according to the “Goldmann” method.

This User’s Guide is designed as a training and reference manual for operation, maintenance, and troubleshooting. We recommend that you read it carefully prior to use and follow the instructions in the guide to ensure optimum performance of your new instrument. Properly trained eyecare professionals such as ophthalmologists, optometrists, opticians and eye care technicians should operate this instrument.

The CT210 tonometer is designed to operate with a tonometer mount that is attached to the slit lamp microscope body. The CT210 is not supplied with a tonometer mount. The manufacturer or distributor of your slit lamp will be able to supply the correct tonometer mount for this style of tonometer.

Please retain this guide for future reference and to share with other users. Additional copies can be obtained from your authorized Reichert Technologies dealer or contact our Customer Service department directly at:

Tel: 716-686-4500
Fax: 716-686-4555
E-mail: reichert.information@ametek.com

Indications for use
The CT210 is intended to measure intraocular pressure of the eye.

Contraindications
None.

Instrument Setup

Great care has been taken to deliver your new CT210 to you safely. The container and packaging was specially designed to transport this unit. Please retain the packaging if future transportation is required.

Unpacking Instructions

1. Remove the piece of top foam from the box.
2. Remove the following parts from the box (Refer to Figure IN-01):
   - CT210 Tonometer (PN 12598)
   - 1 Measurement Prism (PN 12594)
   - Calibration Rod (PN 12595-800)
   - Allen Wrench (PN X54284)
   - User's Guide (PN 12598-101)

   Note: Mounting Bracket Sold Separately.

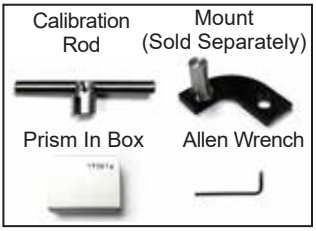


Figure IN-01 Accessories

3. Take the CT210 out of the plastic bag and set the unit down on a clean surface.
4. Place the packing material in a safe place so that if transportation is required in the future, it will be available.
5. Read the User's Guide before operating this instrument.



Figure IN-02 Place Mount

Installation

1. Place the Mount on the Slit Lamp, lining up the hole in the Mount with the Screw Hole. Refer to Figure IN-02.
2. Using a Flathead screwdriver, secure the Mount with the securing Screw by turning the Screw clockwise. Refer to Figure IN-03.
3. Using the Allen wrench, loosen the four Lock Screws and install the CT210 onto the Mount. Refer to Figure IN-04.
4. Using the Allen wrench, tighten the four Lock Screws until the CT210 is secure. Refer to Figure IN-05.

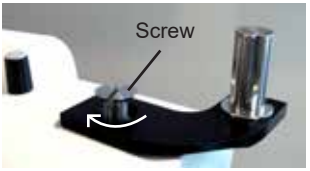


Figure IN-03 Screw On Mount

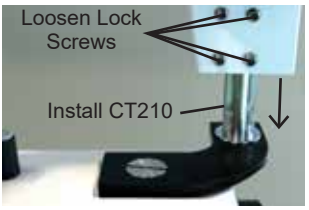


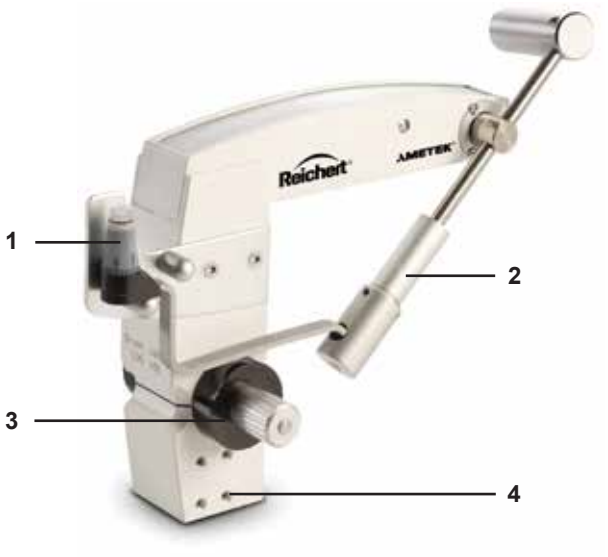
Figure IN-04 Install CT210

Note: You can adjust the position of the tonometer by adjusting the four Lock Screws.


Figure IN-05 Tighten Lock Screws

Instrument Setup (continued)

Parts Identification



1. **Measurement Prism**
   Pressed against the eye during an examination to determine the IOP. The
2. **Pressure Arm**
   Holds the Prism in place and can be placed into storage position when not in use (as seen in the above image.)
3. **Rotation Knob with Measuring Drum**
   Rotation of this knob adjusts the pressure placed on the eye, and the IOP reading is taken from this drum.
4. **Lock Screws**
   These screws secure the CT210 to the tonometer mount (not included.) Orientation of the CT210 can be adjusted by these screws.

Instructions for Use

Introduction

The following instructions assume that the operator is trained and familiar with the principles of contact applanation tonometry. Operators should follow these instructions carefully to ensure patient safety, patient comfort, and accurate measurement results.

It is recommended that three measurements be made on each eye. Measurement values are deemed correct if they remain within a range of ± 0.5 mmHg.

When measuring an eye for a prolonged period of time, drying of the corneal epithelium may occur. This may make it difficult to obtain accurate measurements. To avoid this possibility, measurements should be made as quickly as possible after anesthetization and on each eye alternately.

The Measurement Prism is graduated from 0 to 180 degrees. When the cornea is spherical, measurements can be made at any meridianal orientation of the Prism. In the presence of three or more diopters of corneal astigmatism, measurements should be made in the direction of 43 degrees to the meridian of lower power.

Instrument Preparation

WARNING: PRISMS SHOULD ALWAYS BE DISINFECTED BEFORE USE.

1. Obtain a Measurement Prism that has been cleaned in accordance with the cleaning instructions. Refer to the Maintenance section of this manual.

WARNING: A DAMAGED MEASUREMENT PRISM SHOULD NEVER BE USED.

2. Prior to use, verify the Measurement Prism is free of any contaminants, cracks, or other damage such as scratches or chips.

Note: The Measurement Prism can be examined using the slit lamp set to a magnification of 16X or 25X.

Note: Reichert Technologies recommends that the Measurement Prism be used for a period of time of no more than two years. This two year period is not valid if the Measurement Prism is found to be damaged. A damaged Prism should be replaced immediately.



Figure IU-01 Prism On

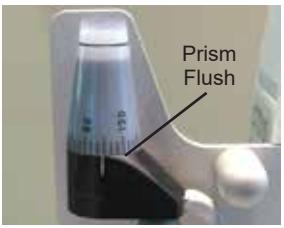


Figure IU-02 Prism Flush


Figure IU-03 Set Power

Instrument Preparation (continued)

Note: The two year lifespan of a Prism starts at first use.

Note: Spare Prisms can be stored indefinitely when stored at room temperature and out of sunlight.



Figure IU-04 Prism

3. Install the Prism into the Prism Holder by pressing the Prism into the holder until it snaps into place. Refer to Figures IU-01 and IU-02.
4. Set the slit lamp magnification at 10X. Refer to Figure IU-03.
5. Ensure that the left eyepiece is focused correctly by looking through the eyepiece and focusing on the Prism.



Figure IU-05 Turn Light Down

Note: Applanation is viewed monocularly through the left ocular. Refer to Figure IU-04 for a view of the Prism as seen from the left ocular.

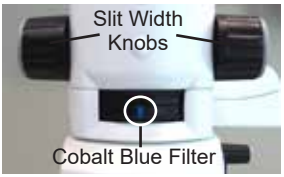


Figure IU-06 Filter and Slit

6. Set the slit lamp illumination to the lowest setting. Refer to Figure IU-05.
7. Set the filter dial to the cobalt blue filter. Refer to Figure IU-06.
8. Open the slit diaphragm fully. Refer to Figure IU-06.
9. Swing the tonometer into position by pulling the arm out and down. Refer to Figure IU-07.
10. Move the illumination unit until the angle between the illumination unit and the microscope is about 60 degrees.

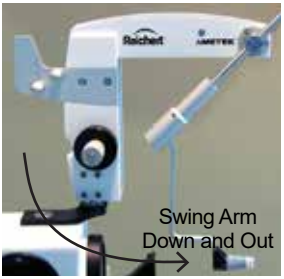


Figure IU-07 Swing Arm Out

Note: This will ensure a bright, reflection-free image for accurate measurements.

11. Turn the measurement drum to setting 1. Refer to Figure IU-08.



Figure IU-08 Set Drum

Patient Preparation

Before doing an examination, it is important to prepare the patient for a contact tonometer pressure reading. Having the patient prepared and relaxed will help in obtaining more reliable results.

Note: Both eyes must always be anesthetized to reduce movement of the eyelids during examination.

Note: Examination should be done as quickly as possible.

1. Place a fluorescein paper strip near the external canthus in the lower conjunctival sac. After a few seconds the lacrimal fluid is sufficiently colored and the paper can be removed.
2. Position the patient properly and comfortably in front of the slit lamp.
3. Instruct the patient to look straight ahead.

Note: It is beneficial to have the patient at ease during the testing procedure. Nervousness, excitement, or strain can adversely affect the measurement results. It is suggested that the examiner put the patient at ease by explaining that there is no discomfort associated with the procedure, and that with the eyes properly anesthetized and wide open, the patient will not feel contact.

Taking a Pressure Measurement

The measuring process should be done as quickly as possible to prevent drying of the eye, and deposits of the fluorescein around the contact position of the cornea, which may result in inaccurate readings.

1. To ensure adequate distribution of lacrimal fluid and fluorescein, ask the patient to close both eyes briefly just before taking a measurement.
2. Looking at the patient's eye from the side (not through the microscope), move the slit lamp forward until the Measurement Prism contacts the eye in the center of the cornea on the pupillary area.

Note: The limbus of the cornea will be illuminated with a bluish hue. As soon as this illumination is observed, cease forward movement of the slit lamp immediately.

3. Look through the left ocular of the slit lamp and observe the steady pulsation of the two fluorescein semi-circles. This pulsation indicates that the tonometer is in the correct measuring position. The image should be similar to the illustration in Figure IU-9.

- continued -

Taking a Pressure Measurement (continued)

Note: When viewing the circles from the Oculars, if the image is not like the illustration in Figure IU-9, refer to the Troubleshooting section of this manual.

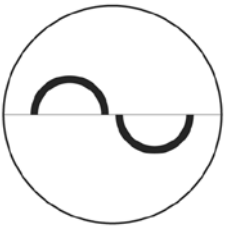


Figure IU-09 Circles

Note: At the 1 gram setting, the size of the semi-circles may vary depending on the intraocular pressure.

4. Adjust the slit lamp's elevation and lateral position with the joystick until the flattened area is seen as two semi-circles of equal size in the middle of the field of view. Refer to Figure IU-09.
5. Gradually increase the pressure on the eye by turning the drum until the inner borders of the two fluorescein rings just touch each other. Refer to Figure IU-10.

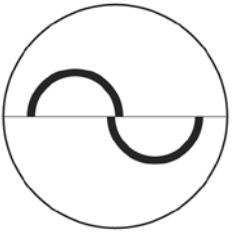


Figure IU-10 Circles

Note: The edges should overlap with each pulsation of the eye.

Note: The width of the fluorescein ring around the contact position of the Measuring Prism should be about one tenth of the diameter of the applanation surface.

6. Three measurements should be taken for each eye, and then averaged.
7. The intraocular pressure in mmHg is calculated by multiplying the value on the drum dial by ten.

Note: It is recommended to take a 'test measurement' for the first reading done on a patient's eye. Most patients are anxious during the first reading, and as a result, the reading can be slightly inaccurate. Once they see that the measuring process is not painful, patients will typically relax, and the readings will be more accurate. Once the patients pressure is stabilized because they are fully relaxed, readings should only vary by ±0.5 mm Hg.

- continued -

Astigmatism

If the patient's cornea is spherical, a measurement can be taken at any meridian, but it is easiest to measure on the 0º meridian. When eyes that have a corneal astigmatism higher than 3 diopters, the surface is elliptical and therefore needs to be measured with the Prism at an angle.

It has been calculated that, in case of larger corneal astigmatisms, a surface of 7.34 mm² (ø 3.06 mm) is to be applanated, when the Measuring Prism is at an angle of 43° to the meridian of the greatest radius.

Example:
If the cornea astigmatism amounts to:
6.5 mm / 30° = 52.0 D / 30° and
8.5 mm / 120° = 40.0 D / 120°

The graduation value 120° of the Prism is set at the red 43° mark of the Prism holder.

If there is a corneal astigmatism of:
8.5 mm / 30° = 40.0 D / 30° and
6.5 mm / 120° = 52.0 D / 120°

The graduation value 30° is set at the red 43° mark. In other words, set the axial position of the greatest radius, that is the axis of a minus cylinder, on the Prism graduation at the red mark on the Prism holder.

Cleaning & Maintenance

Cleaning

Main Body
Clean the external surfaces of this instrument using a clean, soft cloth moistened with a mild detergent solution (1 cc of liquid dish soap to one liter of clean, filtered water (filtered below 5 microns)). Refer to Figure CL-01.


Figure CL-01 Clean Main Body

Prism
The Measurement Prism should always be disinfected before use.

1. Run the Measurement Prism under cold water for 30 to 60 seconds before disinfecting. Refer to Figure CL-02.

Note: If the Prism becomes visibly contaminated, rub the Prism with a cotton-wool ball while rinsing with cold water. A mild soap may be used as well.


Figure CL-02 Wash Prism

CAUTION: DO NOT USE ALCOHOL, ACETONE, UV RADIATION, OR WATER ABOVE 140 °F (60 °C) TO STERILIZE THE MEASUREMENT PRISMS.

CAUTION: DO NOT IMMERSE THE MEASURING PRISM IN WATER FOR MORE THAN 1 HOUR.


Figure CL-03 Disinfect Prism

2. Disinfect the Measurement Prism using an aqueous Hydrogen Peroxide solution of 3% for 10 minutes. Refer to Figure CL-03.
3. Thoroughly rinse the Measuring Prism under cold water for at least 10 minutes.
4. Dry the Measuring Prism with a clean, soft, single use tissue.
5. Store the Measuring Prism in a clean, dry container.

Cleaning & Maintenance (continued)

Calibration

Calibration verification of the CT210 tonometer can be performed by the operator, and should be done once a month. If the instrument is found to be out of calibration it should be returned to an Authorized Reichert service center for calibration.

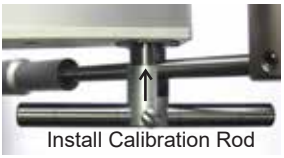


Figure CA-01 Install Rod

The use of the calibration rod depends upon gravitational force, therefore, to compensate for the possibility that the instrument is not level, it is necessary to take two readings. One reading should be taken followed by another with the tonometer's position altered by 180 degrees. The operator should then average these two readings to compensate for any out-of-level conditions.



Figure CA-02 Rod On

For the following procedure, the Calibration Rod is used.

Procedure

1. Install the Calibration Rod by pushing the rod onto the Pressure Arm until it is fully seated on the rod. Refer to Figures CA-01 and CA-02.

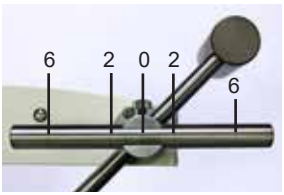


Figure CA-03 Calibration Marks

Note: The Calibration Rod is divided into five segments indicated by engraved rings. The middle segment corresponds to drum position 0, the two immediately to the left and right correspond to position 2 and the outer rings correspond to position 6. Refer to Figure CA-03.

2. Set the Calibration Rod to position 0. Refer to Figure CA-04.

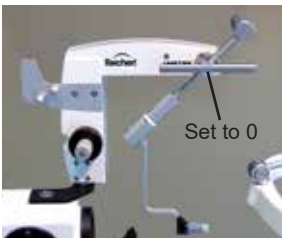


Figure CA-04 Set to 0

Note: To change the Calibration Rod setting, loosen the Rod Securing Screw by turning it counterclockwise and sliding the Rod into the desired position, then tightening the Rod Securing Screw by turning it clockwise. Refer to Figure CA-05.

3. Set the drum to position 0.

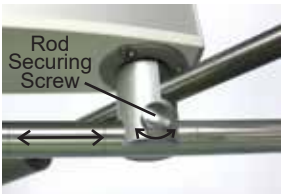


Figure CA-05 Changing Setting

Cleaning & Maintenance (continued)

Calibration (continued)

Procedure (continued)

4. With the Prism installed and in measurement position, lightly push on the pressure arm. The pressure arm should move freely between the stops. Refer to Figure CA-06.
5. Set the drum to position -0.1. Refer to Figure CA-07.

Note: This setting is halfway between position 0 and the first hash mark above it. Refer to Figure CA-07.

Note: When checking the calibration of the tonometer, make sure to turn the measuring drum very slowly. Turning the drum too quickly can cause inaccuracy.

6. The pressure arm should move from the free movement zone to the stop in the direction of the examiner (opposite Prism side). Refer to Figure CA-08.
7. Set the drum to position +0.1. Refer to Figure CA-09.

Note: This setting is halfway between position 0 and the first hash mark below it. Refer to Figure CA-09.

8. The pressure arm should move from the free movement zone to the stop in the direction of the patient (Prism side). Refer to Figure CA-10.

- continued -

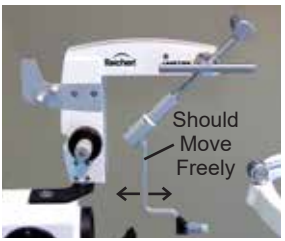


Figure CA-06 Free Movement

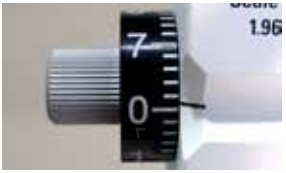


Figure CA-07 Set to -0.1

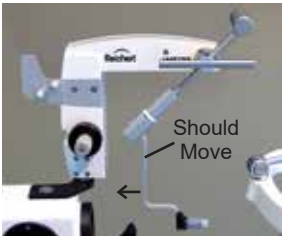


Figure CA-08 Move Back

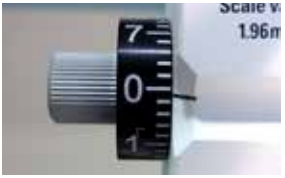


Figure CA-09 Set to +0.1

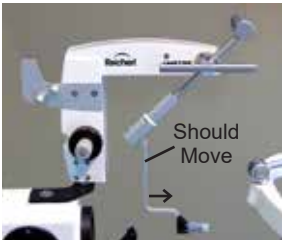


Figure CA-10 Move Forward

Cleaning & Maintenance (continued)

Calibration (continued)

Procedure (continued)

9. Set the calibration rod to position 2, so that the longer portion of the rod is pointing towards the patient. Refer to Figure CA-11.
10. Set the drum to position 2.
11. With the Prism installed and in measurement position, lightly push on the pressure arm. The pressure arm should move freely between the stops. Refer to Figure CA-06.
12. Set the drum to position 1.9. Refer to Figure CA-12.
13. The pressure arm should move from the free movement zone to the stop in the direction of the examiner (opposite Prism side). Refer to Figure CA-08.
14. Set the drum to position 2.1. Refer to Figure CA-13.
15. The pressure arm should move from the free movement zone to the stop in the direction of the patient (Prism side). Refer to Figure CA-10.
16. Set the calibration rod to position 6 so that the longer portion of the rod is pointing towards the patient. Refer to Figure CA-14.
17. Set the drum to position 6.
18. With the Prism installed and in measurement position, lightly push on the pressure arm. The pressure arm should move freely between the stops. Refer to Figure CA-06.
19. Set the drum to position 5.9. Refer to Figure CA-15.
20. The pressure arm should move from the free movement zone to the stop in the direction of the examiner (opposite Prism side). Refer to Figure CA-08.
21. Set the drum to position 6.1. Refer to Figure CA-16.
22. The pressure arm should move from the free movement zone to the stop in the direction of the patient (Prism side). Refer to Figure CA-10.

Note: If at any point during the calibration procedure, the unit does not calibrate properly, the unit should be sent in to Reichert for calibration and repair.

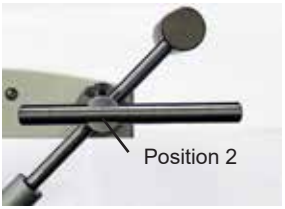


Figure CA-11 Set to 2

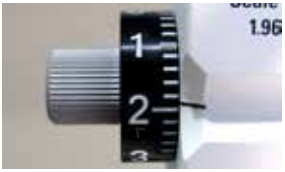


Figure CA-12 Set to 1.9

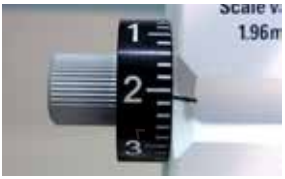


Figure CA-13 Set to 2.1



Figure CA-14 Set to 6

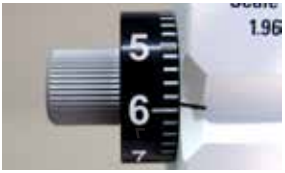


Figure CA-15 Set to 5.9



Figure CA-16 Set to 6.1

Troubleshooting

Prism View

The following list shows illustrations of common views of the Prism through the Ocular that indicate an improper pressure measurement or set up.

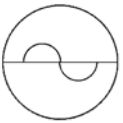


SYMPTOM • FLUORESCEIN RING TOO WIDE

Probable Cause • The Prism was not dried after cleaning.

• Eyelids came into contact with Prism during measurement.

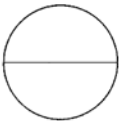
Solution • Pull back the Slit Lamp towards the Operator, and dry the Prism with a cotton swab.



SYMPTOM • FLUORESCEIN RING TOO NARROW

Probable Cause • Lacriminal fluid has dried.

Solution • Pull back the Slit Lamp, then let the patient close the eyes once or twice. Then repeat the measuring process.



SYMPTOM • NO SEMI CIRCULAR RINGS

Probable Cause • Incorrect distance to patient; Measuring Prism not touching cornea

Solution • If patient withdraws head slightly, irregular pulsations will occur. If they withdraw the head further, fluorescein rings will disappear altogether.

• Possibly employ a headband on the patient.

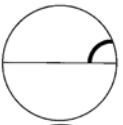


SYMPTOM • SEMI CIRCULAR RINGS TOO LARGE AND ONLY PARTLY APPEAR

Probable Cause • Incorrect distance to patient

• If Slit Lamp is moved towards patient, or patient moves towards Prism, arm will contact a sprung stop piece

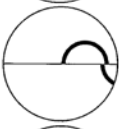
Solution • Image won't change when turning Measuring Drum. Withdraw Slit Lamp until regular pulsations of a corresponding smaller applanation surface indicate the correct measuring position and pressure changes lead to immediate applanation surface changes.



SYMPTOM • UPPER SEMI CIRCLE PARTLY APPEARS

Probable Cause • Measuring Prism not focused on eye and eye too far right

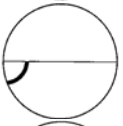
Solution • Move Slit Lamp right



SYMPTOM • FULL UPPER SEMI CIRCLE AND PART LOWER SEMI CIRCLE APPEARS

Probable Cause • Measuring Prism not focused on eye and eye too far right

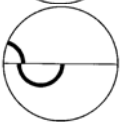
Solution • Move Slit Lamp right



SYMPTOM • ONLY LOWER SEMI CIRCLE PARTLY APPEARS

Probable Cause • Measuring Prism not focused on eye and eye too far left

Solution • Move Slit Lamp left



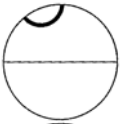
SYMPTOM • FULL LOWER SEMI CIRCLE AND PART UPPER SEMI CIRCLE APPEARS

Probable Cause • Measuring Prism not focused on eye and eye is too far left

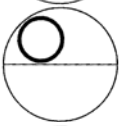
Solution • Move Slit Lamp left

Troubleshooting (continued)

Prism View (continued)



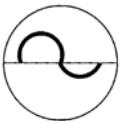
SYMPTOM • PART UPPER SEMI CIRCLE
Probable Cause • Measuring Prism not focused on eye and eye is too far up
Solution • Move Slit Lamp up using Joystick



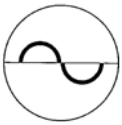
SYMPTOM • FULL RING IN UPPER HALF
Probable Cause • Measuring Prism not focused on eye and eye is too far up
Solution • Move Slit Lamp up using Joystick



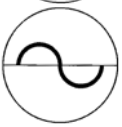
SYMPTOM • FULL RING IN UPPER HALF AND PARTLY CUT RING IN LOWER HALF
Probable Cause • Measuring Prism not focused on eye and eye is too far up
Solution • Move Slit Lamp up using Joystick



SYMPTOM • TWO PARTLY CUT RINGS APPEAR- LARGER RING IN UPPER HALF
Probable Cause • Measuring Prism not focused on eye and eye is too far up
Solution • Move Slit Lamp up using Joystick



SYMPTOM • OUTER EDGES TOUCH EACH OTHER
Probable Cause • Pressure not strong enough
Solution • Increase pressure



SYMPTOM • RINGS TOUCH TO FORM A LINE
Probable Cause • Pressure not strong enough
Solution • Increase pressure



SYMPTOM • RINGS DO NOT TOUCH
Probable Cause • Pressure too high
Solution • Reduce pressure

Troubleshooting (continued)

Chart of Common Errors

The following chart provides details of common problems and solutions for the CT210 Tonometer.

Problem	Probable Cause	Solution
Prism not visible through the ocular.	CT210 not seated properly onto Mount.	Loosen the Set Screws on the CT210 and ensure the CT210 is fully seated onto the Mount.
	CT210 not angled in front of Ocular properly.	Adjust the Set Screws so that the CT210 is oriented properly, so that the Prism can be viewed from the Ocular.
Inaccurate pressure readings.	CT210 not calibrated correctly.	Check the calibration of the CT210 using the Calibration Rod. If the calibration is not verified, send unit in to Reichert for servicing.
CT210 does not pass the calibration test.	Prism not installed during calibration.	Install a Prism and re-calibrate the unit.
	Calibration rod not aligned properly.	Ensure calibration marks are perfectly aligned with the Calibration Rod

Specifications

Catalog Number 12598

Physical Dimensions	
Size:	Weight, unpacked: 1.50 lbs. (0.68 Kg)
Height (Prism Up):	6.25 in (15.88 cm)
Height (Prism Down):	8.18 in (20.78 cm)
Width:	3.38 in (8.59 cm)
Depth:	8.38 in (21.29 cm)
Measurement Range:	0 – 80 mmHg
Measurement Accuracy:	± 0.1 g (± 1.0 mmHg)

Ordering Information – Accessories

Description	**Part Number**
Prism	P/N 12594
CT210 Tonometer Mount	P/N 12597*

To order any of these accessories, contact your local authorized Reichert dealer.

CAUTION: USE OF UNAPPROVED ACCESSORIES MAY RESULT IN DEGRADATION OF PERFORMANCE.

Operational Conditions

Environmental:
The environmental conditions are as follows:

Operating:

Temperature: 10°C to 35°C (59°F to 95°F)

Relative Air Humidity: 30% to 75%

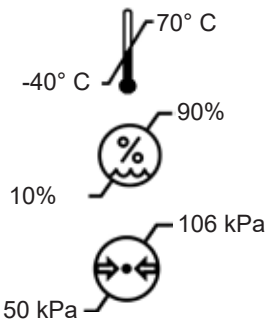
Atmospheric Pressure:
80 kPa (23.6 in.Hg) to
106 kPa (31.3 in.Hg)

Transportation & Storage:

Temperature: -40° to 70°C (-40° to 158°F)

Relative Air Humidity:
10% to 90%

Atmospheric Pressure:
50 kPa (14.8 in.Hg) to
106 kPa (31.3 in.Hg)



Disposal:
This product does not generate any environmentally hazardous residues. At the end of its product life, follow your local laws and ordinances regarding the proper disposal of this equipment.

***Note:** This mount is for use with the Xcel 255 Slit Lamp. For use with other slit lamps, please contact the manufacturer of the slit lamp for the appropriate mount.

Product Warranty

This product is warranted by Reichert Technologies against defective material and workmanship under normal use for a period of one year from the date of invoice to the original purchaser. (An authorized dealer shall not be considered an original purchaser.) Under this warranty, Reichert's sole obligation is to repair or replace the defective part or product at Reichert's discretion.

This warranty applies to new products and does not apply to a product that has been tampered with, altered in any way, misused, damaged by accident or negligence, or which has had the serial number removed, altered or effaced. Nor shall this warranty be extended to a product installed or operated in a manner not in accordance with the applicable Reichert instruction manual, nor to a product which has been sold, serviced, installed or repaired other than by a Reichert
factory, Technical Service Center, or authorized Reichert Dealer.

Lamps, bulbs, charts, cards and other expendable items are not covered by this warranty.

All claims under this warranty must be in writing and directed to the Reichert factory, Technical Service Center, or authorized instrument dealer making the original sale and must be accompanied by a copy of the purchaser's invoice.

This warranty is in lieu of all other warranties implied or expressed. All implied warranties of merchantability or fitness for a particular use are hereby disclaimed. No representative or other person is authorized to make any other obligations for Reichert. Reichert shall not be liable for any special, incidental, or consequent damages for any negligence, breach of warranty, strict liability or any other damages resulting from or relating to design, manufacture, sale, use or handling of the product.

PATENT WARRANTY

If notified promptly in writing of any action brought against the purchaser based on a claim that the instrument infringes a U.S. Patent, Reichert will defend such action at its expense and will pay costs and damages awarded in any such action, provided that Reichert shall have sole control of the defense of any such action with information and assistance (at Reichert's expense) for such defense, and of all negotiation for the settlement and compromise thereof.

PRODUCT CHANGES

Reichert reserves the right to make changes in design or to make additions to or improvements in its products without obligation to add such to products previously manufactured.

CLAIMS FOR SHORTAGES

We use extreme care in selection, checking, rechecking and packing to eliminate the possibility of error. If any shipping errors are discovered:

1. Carefully go through the packing materials to be sure nothing was inadvertently overlooked when the unit was unpacked.
2. Call the dealer you purchased the product from and report the shortage. The materials are packed at the factory and none should be missing if the box has never been opened.
3. Claims must be filed within 30 days of purchase.

CLAIMS FOR DAMAGES IN TRANSIT

Our shipping responsibility ceases with the safe delivery in good condition to the transportation company. Claims for loss or damage in transit should be made promptly and directly to the transportation company.

If, upon delivery, the outside of the packing case shows evidence of rough handling or damage, the transportation company's agent should be requested to make a "Received in Bad Order" notation on the delivery receipt. If within 48 hours of delivery, concealed damage is noted upon unpacking the shipment and no exterior evidence of rough handling is apparent, the transportation company should be requested to make out a "Bad Order" report. This procedure is necessary in order for the dealer to maintain the right of recovery from the carrier.

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