

ophthalmic refractometer



### Product Manual Model: EQ102

10593-900 Rev 2.0

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## Introduction

Congratulations on purchasing the EyeQue VisionCheck automated subjective refraction system.

The EyeQue VisionCheck allows users to perform self-administered eye tests to measure refractive conditions and provide sphere, cylinder, and axis measurements of the eye. The EyeQue VisionCheck device works with the VisionCheck smartphone app to conduct visual test on each eye, then converts the test results into EyeQue EyeGlass Numbers®- the lens power needed to correct nearsightedness, farsightedness, and astigmatism.

When used under a doctor's prescription, the EyeQue VisionCheck system can be used to generate prescription information needed to order eyeglasses for vision correction.

When purchased directly and not used under a doctor's prescription, the EyeQue VisionCheck system can be used as an over-the-counter (OTC) aid in monitoring the progression of refractive conditions, which can help demonstrate the general stability or variability of your eyesight over time.

The EyeQue VisionCheck is intended for self-administered use at home by adults 18 years and over. Care must be taken to read and follow the directions for use contained in this manual and in-app, to help ensure safe and accurate use.

To help avoid identified risks of use, please read the Safety Information related to the EyeQue VisionCheck device.

EyeGlass Numbers are not prescriptions. Personal vision testing does not replace the need for regular eye health exams administered by an eye doctor.

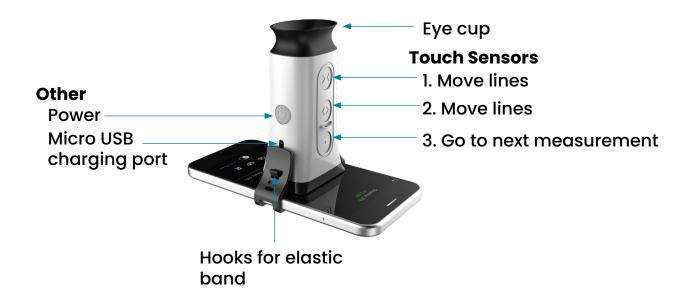


## **Package Contents**





# **VisionCheck Device**



## **Technical Specifications**

Spherical power	-10 to +8 D (0.25 D steps)
Cylindrical power	0 D to -5D (0.25 D steps)
Astigmatic axis	0° to 180° (1° steps)
Device weight	2 ounces
Dimensions	92mm X 50mm X 35mm
Light source	Smartphone Display (eye safe)
Operational Condition <ul> <li>Temperature range</li> <li>Humidity</li> </ul>	0 to 40 degrees C (32 to 104 degrees F) < 95 % non-condensing
Power supply	Battery, 400 mAh, Lithium-Ion
Minimum smartphone requirement	250 ppi screen resolution
Bluetooth	Supports Bluetooth 5.0 standard
Auto-off	15 minutes of inactivity



# Contraindications

The VisionCheck device should not be shared with users that are known to have, or exhibit signs or symptoms of an eye infection.

The VisionCheck device should not be used if you have been diagnosed with epilepsy.

The VisionCheck is not recommended if you have any existing eye diseases, such as advanced macular degeneration, macular edema, and diabetic retinopathy.

You may not be able to obtain accurate results if you have the following conditions: age-related macular degeneration, macular edema, diabetic retinopathy, glaucoma, cataracts, or severe colorblindness.

# **Safety Information**

### Warning

- Keep out of reach of children.
- DO NOT use to self-diagnose vision related conditions. Consult with your physician before making any medical decision, including altering your use of any drug or treatment.
- DO NOT use this device if you have been diagnosed with epilepsy.
- DO NOT immerse device or expose device to excessive liquid.
- DO NOT store in extremely hot, cold, humid, wet, or bright conditions.
- DO NOT use this device if you have existing eye disease.
- DO NOT disassemble or make any modifications to this device.
- DO NOT use the device if it appears broken or damaged.

This device contains a Lithium-ion battery.

- DO NOT discard in trash.
- DO NOT expose to high heat or incinerate.



- DO NOT charge in high temperatures.
- This device should be disposed of in accordance with your local rules and regulations.

#### Cautions

While using EyeQue products to personally measure and track vision has the benefit of detecting changes between regular eye exams, it does not replace a comprehensive eye exam that evaluates ocular health or binocularity. EyeQue urges people to visit an eye doctor annually for a full eye health exam.

For ages 18 years or older.

# **Indications of Use**

The EyeQue VisionCheck automated subjective refraction system provides sphere, cylinder, and axis measurements of the eye.

The VisionCheck assists the eyecare professional as an aid in prescribing eyeglasses and as an OTC aid in monitoring the progression of refractive conditions.

VisionCheck uses a mobile medical software application intended to be used by adults who have the capability to regularly perform a simple self-test at home.

## Instructions

### Download the App

- Download the EyeQue VisionCheck app from Google Play or Apple App store. You can do so by scanning the QR code on the right.
- Launch the app and register for an account. If you already

#### VisionCheck app



### EyeQue®

have an EyeQue account, sign in to your existing account.

• Complete the app activation process.

### **Getting Started**

- Remove the VisionCheck device from the box and remove the protector cover from the base.
- Turn up your smartphone volume. There will be voice prompts to help you through the practice session and test.
- Click on "Test" in the app.

### **Turning On the VisionCheck Device**

- Launch the EyeQue VisionCheck app on your phone and select "Test."
- Turn on the device by pressing the power button for three seconds.
- The Power Button will blink blue indicating that the device is ready to be paired to your phone.
- Setup Bluetooth connection between the VisionCheck device and your phone.
- Turn on the EyeQue VisionCheck app on your phone and press "Test".
- The app will look for the VisionCheck device for up to 30 seconds.
- Once the app discovers the VisionCheck device, it will display the device name for you to select.
- After selecting the device, click on "Continue" on the app.
- The blinking blue light on the power button will turn solid blue when paired.

### Attach the Device to Your Phone

- Remove the base cover. Attach the device within the dotted line displayed on your phone screen with the VisionCheck logo facing toward the bottom of the phone and the three touch sensors towards the top. The device should not slide easily once attached to your phone.
- Secure the device by attaching the silicone elastic band with a snug fit.



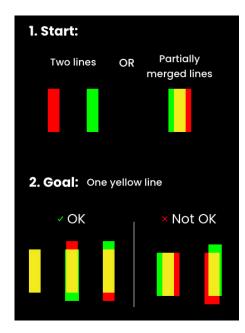
### **Check Battery Status from App**

- When you pair with the VisionCheck device the app will indicate the charge level of the VisionCheck device.
- While testing there will be a battery level indicator on the screen.

### How to Take Your First Vision Test

Note: If this is your first time we recommend going through the tutorial as well as the practice session. Once you find the lines and successfully complete your first test, all subsequent tests will become much easier to perform.

- Click "Next" and select whether you will be taking the test with or without glasses or contact lenses and if your phone has a screen protector.
- Place your elbows on a flat surface to hold your smartphone as steady as possible.
- Hold the smartphone at reading distance, and slowly move it closer until the eye cup of the device touches your right eye.
- You should see two lines, one red, and one green. Take a few seconds to find these lines.
- If you do not see them, try gently moving the device left and right, up and down. It takes some practice and is an important part of getting accurate test results.





#### Tutorial video



- Once you see the red and green lines, open and relax your left eye (non-testing eye) during the test. Most people find it helpful to focus the untested eye on a large object at least 6 feet away. This step is very important to ensure accurate results.
- Tap on touch sensors 1 and 2 on the VisionCheck device and overlap the red and green lines completely to form one solid yellow line.
- The VisionCheck will vibrate gently when you tap the touch sensors.
- Holding touch sensors 1 and 2 for a longer period of time, also known as "long press," will result in quicker movement of the lines.
- Once you are satisfied that the lines are overlapped, touch and hold touch sensor 3 ("Next") for two seconds on the device.
- Continue looking into the device. The red and green lines will be rotated to a different angle. Overlap them as you've done for the previous test; touch and hold the "Next" touch sensor for two seconds when you see one solid yellow line.
- Continue and complete all 9 measurements for your right eye and then the 9 measurements for your left eye. Follow the voice prompts.
- You may choose to save or discard the test result. Discarded result will not be used in calculating EGNs.

### EyeGlass Numbers® (EGNs)

After taking at least three sets of saved vision tests with the EyeQue VisionCheck, the app will display a set of EyeGlass Numbers.

Note: Although a minimum of three tests are needed, more vision tests will result in better, more accurate EyeGlass Numbers.

#### What can you do with EyeGlass Numbers?

We recommend using them for general tracking of your eyesight over time and providing it to your eye care provider before your annual eye exam for evaluation. EGNs can be used to order EyeQue Try-On Glasses for verification purposes. EyeQue Try-On Glasses are low-cost trial lenses made using your EyeGlass Numbers to help you ensure that the corrective power works well for you.



EyeGlass Numbers are not prescriptions. Personal vision testing does not replace the need for an annual eye health exam by an eye doctor.

#### **Multiple Users**

One device can be shared with other users.

EGN calculations are based upon the results of several saved tests for a given individual and are available on their personal dashboard. Each user must have a separate EyeQue account to ensure accurate results. EyeQue accounts are free and requires a valid email address.

Clean the VisionCheck device eye cup with rubbing alcohol between users. Remove and/or allow the rubbing alcohol residue to evaporate before bringing the device eye cup to the eye.

#### For other users to obtain their own EyeQue account

### **Via Computer**

- 1. Create an account by going to the EyeQue website.
- 2. Go through the account registration process.
- 3. Confirm your email address to finish creating your account.
- 4. Download the EyeQue VisionCheck app.
- 5. Log in using the app.

### Via the VisionCheck app

- 1. Download the EyeQue VisionCheck app.
- 2. Open the app and register for a new account.
- 3. Go through the account registration process.
- 4. Confirm your email address to finish creating your account.
- 5. Log in using the app.



### Cleaning

- 1. Clean the eye cup by removing it from the unit and rinsing it with water, or wipe using an alcohol-based solution. Reattach once eye cup is sufficiently dry.
- 2. Clean the base of the device (micro-suction surface) by wiping with a soft cloth dampened with water. Ensure the base is sufficiently dry before use.
- 3. Clean the body of the device by wiping with a DRY, soft cloth.

### Charging

- It is recommended that you charge the VisionCheck device before using.
- Charge the device with the micro USB cable (USB wall charger not included).
- LED on the power button turns red while charging.
- LED on the power button turns off once charging is complete.

### Storing

When not in use, replace the protective cover on the base of the device and store in its original box, along with the manual and Quick Start Guide.

## **Support Email & Phone Number**

Please visit our website at www.EyeQue.com for additional product infformation or email us at Support@EyeQue.com or call us at (510) 455-8168 with any questions.

# Pupillary Distance (PD) Measurement Tool

The PDCheck, a pupillary distance measurement tool, is included with your EyeQue VisionCheck purchase. It is provided as a useful tool if you choose to order



glasses from online retailers. It is not a part of the VisionCheck vision test and is not required to achieve accurate EGNs.

### What is pupillary distance?

Pupillary Distance is the distance between the centers of the pupils of the eyes, measured in millimeters. PD is one of the measurements necessary to order glasses.

# **Frequently Asked Questions**

- Q. What is the charging time for the VisionCheck?
- A. Approximately 1.5 hours.

#### Q. My device makes a sound when it rotates, is this normal?

A. Yes. The sound is from the internal mechanical movement.

#### Q. What does the power button light indicate?

A. See the image below.

#### VisionCheck ON



**Blinking blue** Waiting for pairing

**Solid blue** Connected/paired



Blinking red Low battery Solid red



VisionCheck charging

5 LED Cho

**LED off** Charging complete

# Troubleshooting

**Situation:** Nothing happens when I hold the power button down for 3 seconds. **Action:** Ensure the device is fully charged and try again.



**Situation:** The lines in the device are not rotating when the Next/Rotate Lines button is pressed.

Action: Exit the test, pair the device, and try again.

**Situation:** The Bluetooth connection drops. **Action:** Make sure the device is within 5 feet of the phone and try pairing again.

**Situation:** The Bluetooth connection drops during the test. **Action:** Exit the test, pair the device, and try again.

**Situation:** The device battery dies during a test. **Action:** Exit the test, charge the device, and restart the test.

If you have any additional questions, contact us at Support@EyeQue.com.

# **Disclaimer of Liability**

EyeQue<sup>®</sup> develops and distributes at-home vision tests that are based on proprietary technologies. EyeQue does not perform and provide optometry services, nor does it represent itself as a licensed optometrist or issue prescriptions. The EyeQue VisionCheck<sup>®</sup> accurately measure for refractive error and detect changes between regular eye exams when properly used. These tests do not replace a comprehensive eye exam that evaluates ocular health and binocularity. EyeQue strongly recommends people visit an eye care professional annually to receive a complete eye health exam.

# Disposal

The VisionCheck device contains a Lithium-ion battery. DO NOT disposed as regular trash. DO NOT put in municipal recycling bins. Devices containing Lithiumion batteries must be sent to a **certified electronics recyclers**, **participating retailers and recyclers in electronics takeback services** or contact your local



solid waste or household hazardous waste collection program for more options.

## **Warranty Information**

Your EyeQue VisionCheck purchase comes with a 30-day money back guarantee and a limited 1-year parts and labor warranty. Proof of purchase from an authorized seller (e.g.: EyeQue.com, Amazon Inc. on Amazon, EyeQue on Amazon, Kickstarter, Indiegogo, and BestBuy.com) is required for processing.

The accuracy and precision of the results can vary among individuals. Not all users will get accurate or consistent results because of, but not limited to, effects such as accommodation, other eye conditions, insufficient manual dexterity, or improper use. Since the EyeQue vision test is self-administered, EyeQue does not make any guarantees regarding results.

## **EyeQue Contact Information**

Please visit our website at **www.EyeQue.com** for additional product infformation or email us **Support@EyeQue.com** with any questions.

#### Address:

39608 Eureka Drive Newark, CA 94560 USA



# Symbol Used System or Packaging Labeling

FC This device complies with Part 15 of the FCC rules. FCC identifier 2ARYS-EQ102.

Do not dispose with household waste

CE

RoHS





# at-home vision tests

Designed in California Manufactured for EyeQue Corp. 39608 Eureka Drive, Newark CA 94560

Made in Taiwan

EyeQue.com

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