



Kendall Optometry Ministries, Inc



Operating the Reichert AL200 Lensmeter

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Kendall Optometry Ministry, Inc



“Serving the Lord by providing better vision to the people of underdeveloped countries.”

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1.0 Introduction

The purpose of this document is to show how to use the Reichert AL200 digital lensmeter to measure different types of eyeglasses and to print barcoded labels (of the prescription) to go onto the eyeglasses bags. These barcoded eyeglasses will then go to Christian mission teams going all over the world.

To help you to identify which kind of these eyeglasses, refer to the KOM document entitled “How Glasses Change Your Vision”. It is a good idea for you to study this document if you plan to measure eyeglasses. By understanding the concepts described in this document, you will better understand how to identify the type of eyeglasses that you are measuring.

There are 4 basic types of eyeglasses.

- 1) Single Vision Eyeglasses. These eyeglasses only have one area of magnification. Typically they are used just for one purpose: distance, intermediate, or reading.
- 2) Bifocal Eyeglasses. These eyeglasses have a dual purpose in mind. They are used for both distance and reading.
- 3) Trifocal Eyeglasses. Sometimes there is a third area of magnification on the eyeglasses sandwiched between the bottom and top areas of magnification. If this is present, then the eyeglasses are called trifocals.
- 4) Progressive lens eyeglasses. Progressive lens eyeglasses have mostly replaced bifocals and almost entirely replaced trifocals. Progressive lens eyeglasses have their least power in the center for distance and progressively get more powerful as you move down to the bottom edge of the eyeglasses.

The following sections describe the measurement of these 4 types of eyeglasses. Bifocals and trifocals will be described together in the same section.

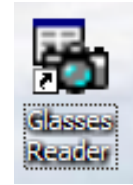
Keep in mind that all 4 of these types of eyeglasses can have an additional parameter called “prism”. Prism is typically used to correct a problem with double vision. When a large amount of prism is cut into used prescription eyeglasses, they will not likely be usable by another person. This type of eyeglasses should be discarded.

At this point use the document entitled “How Glasses Change Your Vision” to identify the pair of eyeglasses you are planning to measure. Place your eyeglasses in the instrument as shown below and then go to the appropriate section which follows.



Be certain the bottom edge of the frame stays positioned on the platform as shown.

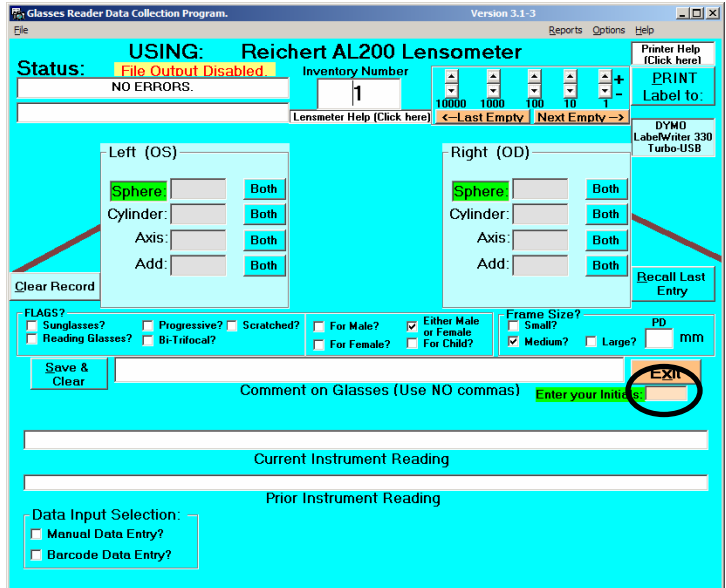
2.0 Setting Up Glasses Reader program.



Start the Glasses Reader program (if not already) by clicking on the icon on the desktop which looks like you see to the right.

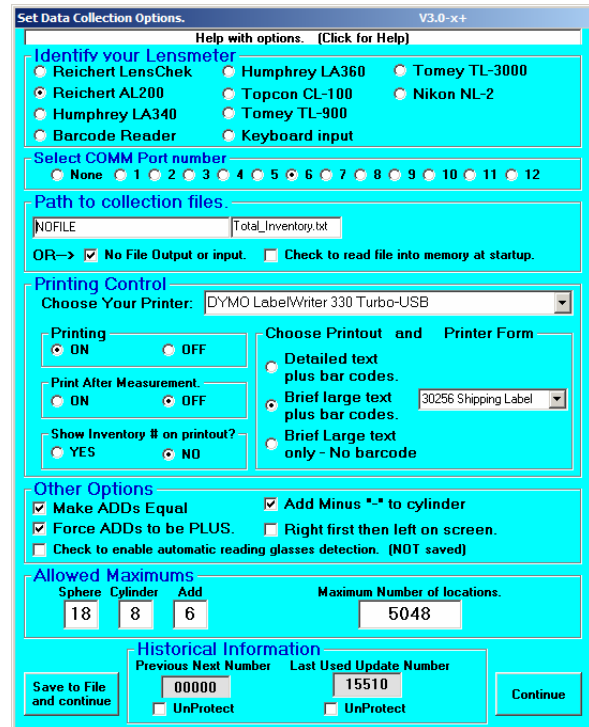
You should then see the screen to the right. This indicates that the program is running and ready to accept measurements.

Be sure to enter your initials in the circled block so that they will be printed on the eyeglasses that you measure.



If you do not see this initial screen (a different inventory number is OK) then click on **Options** and set the screen to be as you see to the right. Make any necessary changes and click **Save to File and Continue**. Keep in mind the name of your printer might also be different that what you see. If you have a Dymo Labelwriter, select it. The initial program screen should then be right.

This program also requires barcode fonts to print barcode labels. You will need therefore to purchase Elfring Barcode Fonts <http://www.elfring.com/bar39.htm> Go to far right hand side and click "BUY NOW 1". You can download for \$99 or order a CD for \$9.50 more.



The purpose of this application of this program is to produce barcoded labels like you see to the right. These go on the eyeglasses bag and are used by the teams for rapid entry of eyeglasses into their inventory.

OD: -1.75 -.75 89 1.25
 OS: -1.25 -1.25 103 1.25 PD: MD
 [BiFocal, Either M/F (8/8/2004)]

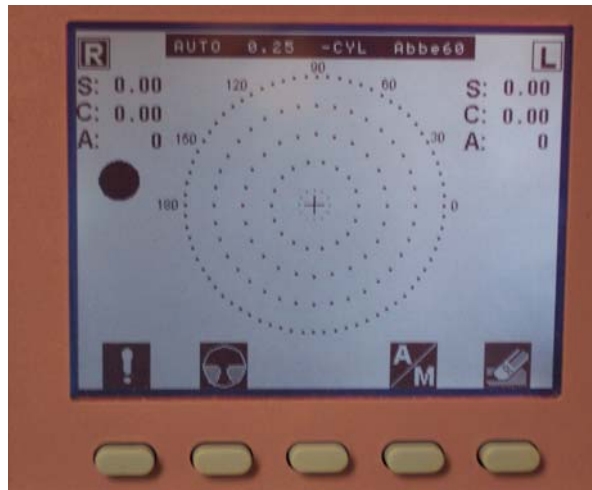


3.0 Single Vision Eyeglasses.

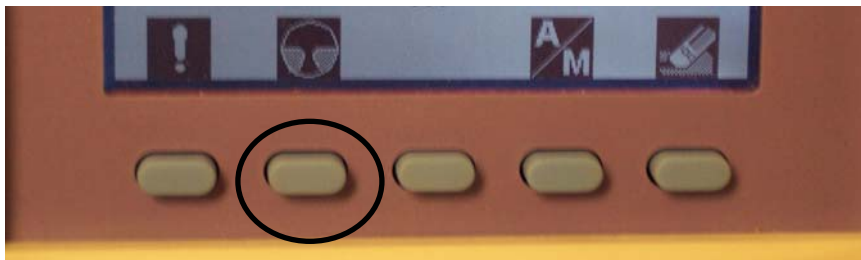
Single vision eyeglasses only have one area of magnification. Typically they are used just for one purpose: distance or reading but not both. Keep in mind that you can easily be deceived in believing you have a pair of single vision eyeglasses when actually you have a pair of progressive vision eyeglasses. Be sure you have single vision eyeglasses before you proceed. Check the “Progressive Identification Chart” in Appendix B of the “How Glasses Change Your Vision” document.

Here are the steps you will perform.

1. Place your eyeglasses into the instrument as shown in section 1.
2. Setup the instrument so that it shows the following screen.



You will do this by pressing the button circled below until the display shows the above setting.

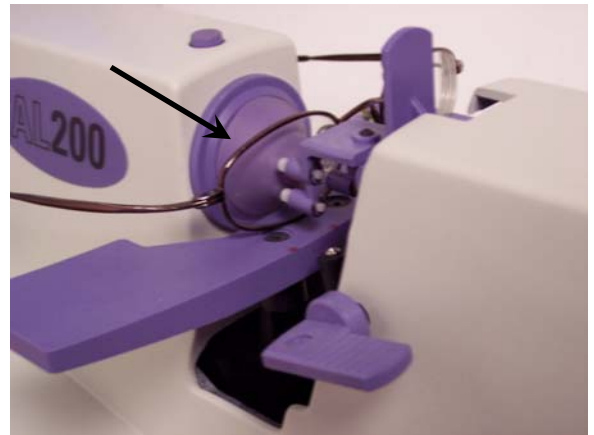
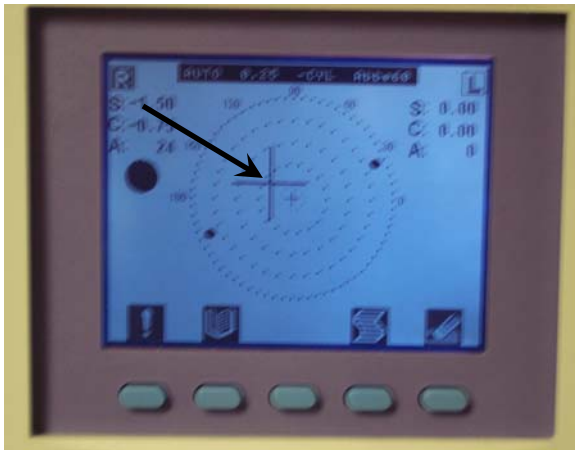


Keep in mind the picture above this button displays three different states as shown below.

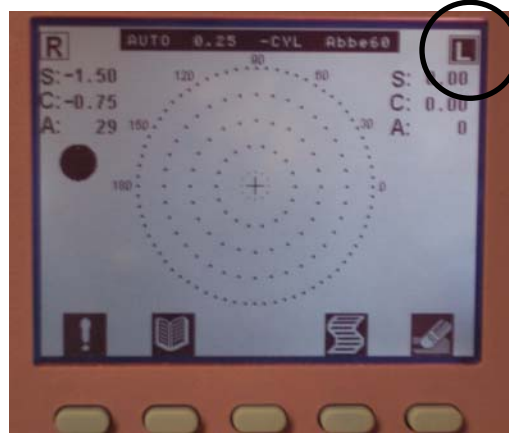


Pressing the button when it shows your choice will cause the instrument to switch to this setting and the screen will display this particular choice.

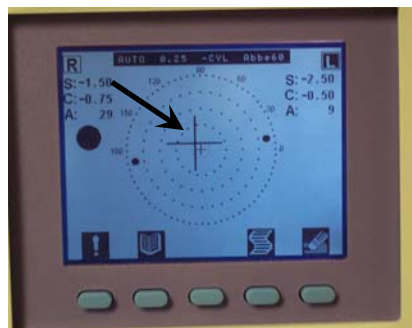
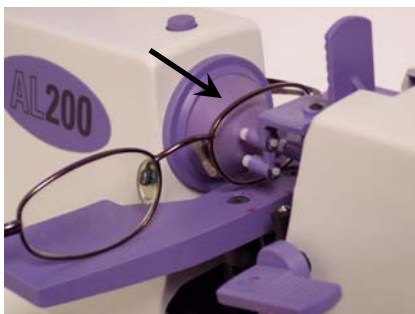
- Now move the eyeglasses up and down (using the platform levers on the left or right) and to the left or the right until the crosshairs move into the center of the screen as shown in the below sequence. Make certain that the frame is always placed snugly on the platform. The picture on the left indicates that the glasses on the right need to be moved in the direction of the arrow.



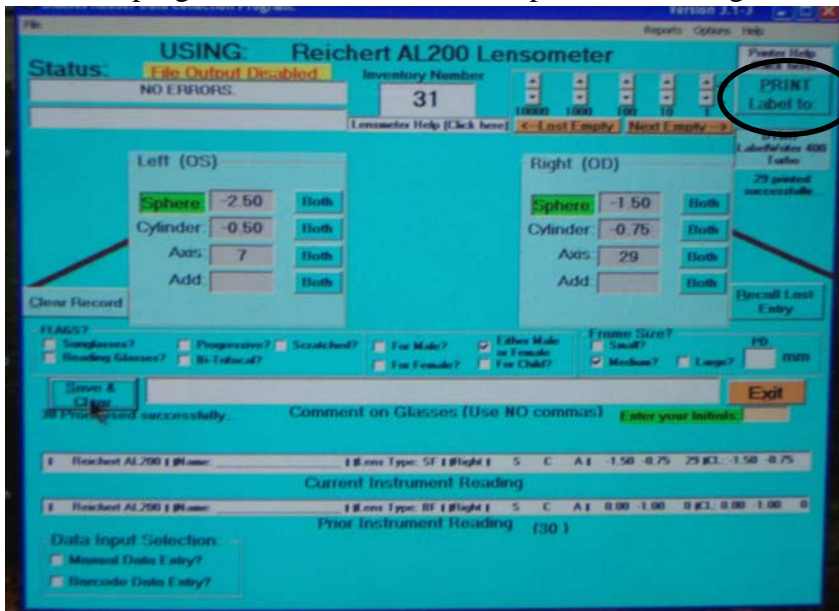
When the crosshair is moved into the center you hear a beep and see the picture on the left below. The right lens has now been measured. Now remove the lens and you will see the screen display change to indicate that it is now measuring the **L**eft lens.



- Place the left lens into the instrument. (below left)
- Move it around and position it by raising the platform and moving the lens to the right and left until the picture shows as indicated bottom right (move in the direction of the arrow added to the screen). You will again hear a beep.



6. Press the lensmeter PRINT button as circled above to transfer the reading to the Glasses Reader program. You should see a response something like the below.



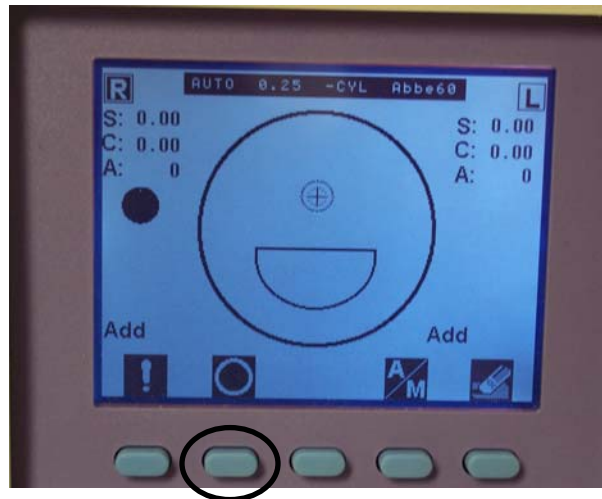
7. Click either “For male, For Female, Either Male or Female, or Child” and then click the PRINT button circled above. The label will be printed. Put the label on the eyeglasses bag and place it in the box. Make sure the label is turned sideways (from end to end) on the eyeglasses bag.

4.0 BiFocal Eyeglasses

BiFocal eyeglasses have two areas of magnification. Typically they are used for distance and reading. The top area is for distance while the bottom area is for reading. **Keep in mind** that also there are **TriFocal** eyeglasses which have a bottom, middle and top segment. When you have one of these pairs of eyeglasses, you should measure it like bifocals and measure just the top and the bottom segments and ignore the middle segment.

Here are the steps you will perform.

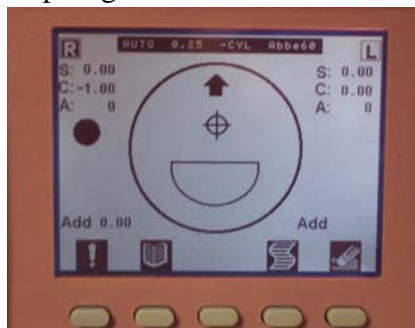
1. Place your eyeglasses into the instrument as shown in Section 1.
2. Setup the instrument so that it shows the following screen.



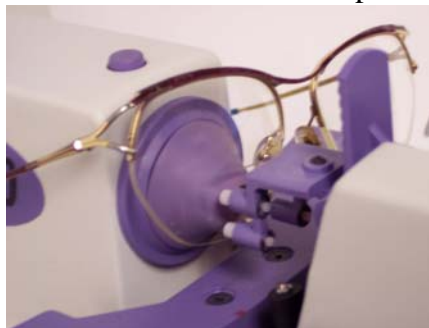
Do this by pressing the button circled above until the display shows the above setting.

3. Now move the eyeglasses up and down (using the platform levers on the left or right) and to the left or the right until the crosshairs move into the center of the screen as shown in the below sequence. Make certain that the frame is always placed snugly on the platform.

Top of glasses measured



Glasses moved to bottom part.



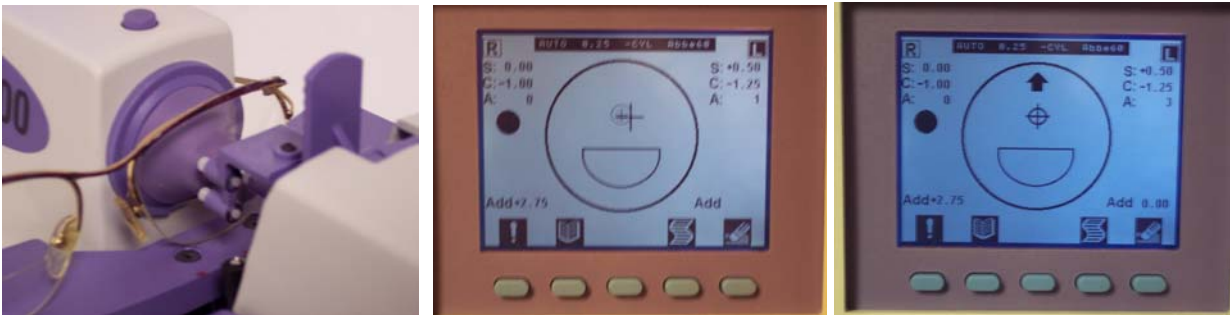
BEEP & glasses bottom measured.



When the lens is measured you will hear a beep. The screen will look like the picture on the above right.

3. Now remove the lens and you will see the screen display change to indicate that it is now measuring the **L** left lens.

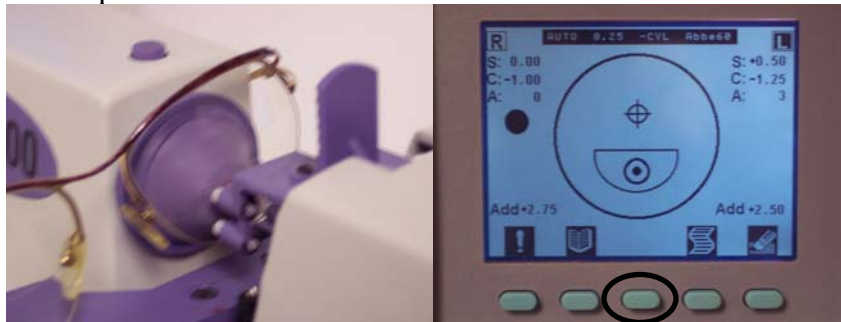
4. Place the left lens into the instrument. (Below picture on the left)
5. Move it around and position it by raising the platform and moving the lens to the right and left until the picture shows as indicated below. You will again hear a beep.



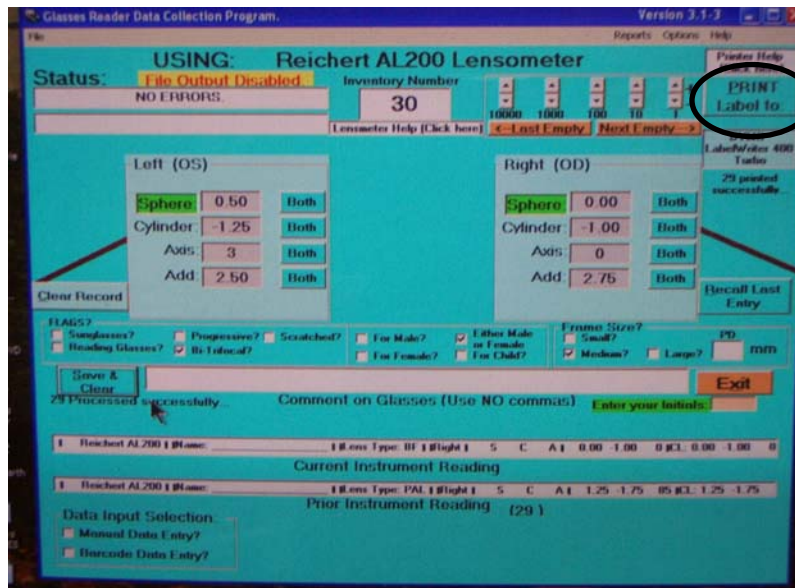
6. Now move the lens down until you get a reading on the lower part of the lens (the add). Again you will hear a beep.

Lower part of lens chosen.

BEEP & screen shows below



7. Press the lensmeter PRINT button (circled above) to transfer the reading to the Glasses Reader program. You should see a response something like the below:



8. Click either “ For male, For Female, Either Male or Female, or Child” and then click the PRINT button circled above. The label will be printed. Put the label on the eyeglasses bag and place it in the 50 pair box. Make sure the label is turned sideways (from end to end) on the eyeglasses bag.

VERY IMPORTANT

When measuring bifocal lens, avoid positioning the top measurement so that the light beam of the AL200 crosses over the Bifocal segment line (top part of the bifocal segment) . Here are two pictures showing that error.



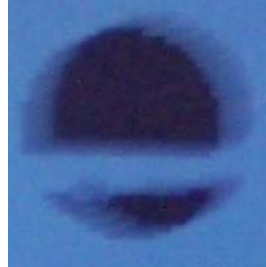
Notice in the above picture (circled) the lensmeter camera. Notice how the bottom half of what would normally be a black circle is instead broken. On the right picture above the line for the bifocal (highlighted in red) is positioned so that it breaks the light to the camera.

If you have this problem and cannot get a reading without moving into this position, move the eyeglasses down and force a reading by pressing the blue button.

You should get this



and NOT this.

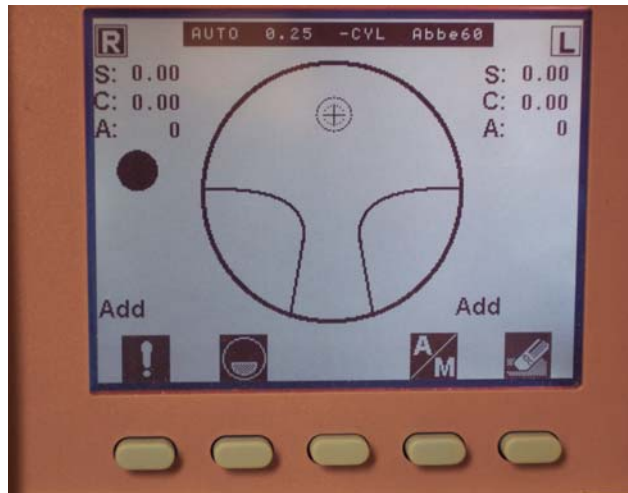


5.0 Progressive Eyeglasses

Progressive lens eyeglasses have mostly replaced bifocals and almost entirely replaced trifocals. Progressive lens eyeglasses have their least power in the center for distance and progressively get more powerful as you move down to the bottom edge of the eyeglasses. When you measure these pairs of eyeglasses, you must be very careful as to your selection of the top portion of the lens. Position the eyeglasses high up on the lens until the instrument tells you to move to a lower position.

Here are the steps you will perform.

1. Place your eyeglasses into the instrument as shown in Section 1.
2. Setup the instrument so that it shows the following screen.

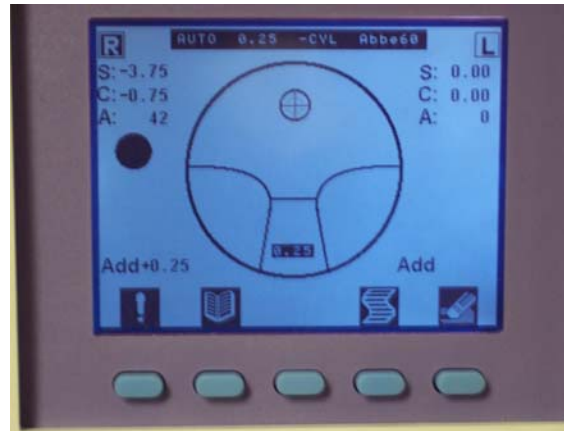


3. Place the right lens in the instrument as shown below.

Position the lens.

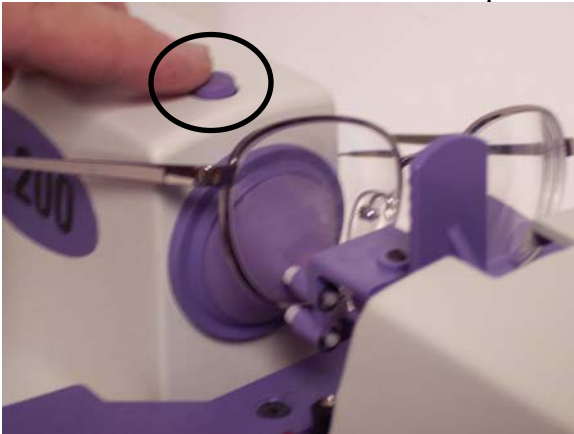


Instrument will BEEP & show the below.

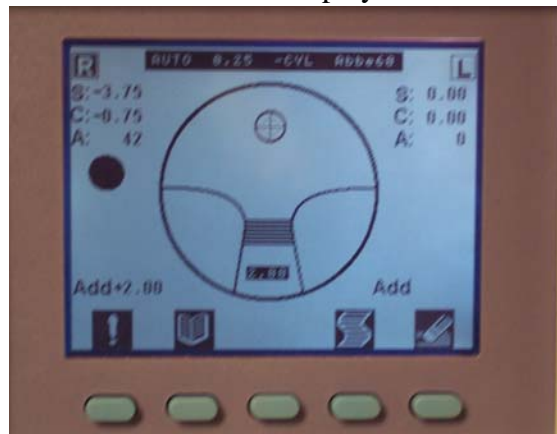


3. Move the lens to view the bottom part of the lens.

Move STRAIGHT down to bottom part.



Instrument will display the below.



This measurement is NOT automatic. You must press the blue button as circled above. The right lens is now measured.

4. Move the eyeglasses to measure the left lens as shown below.

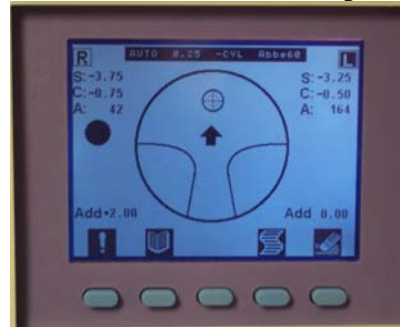
Position eyeglasses.



Need to move to right.

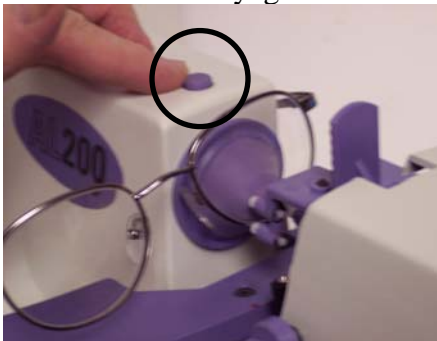


BEEP sounds at correct spot.



5. Move the eyeglasses down near the edge to measure the bottom part (the add).

Position the eyeglasses.



Screen will now show.

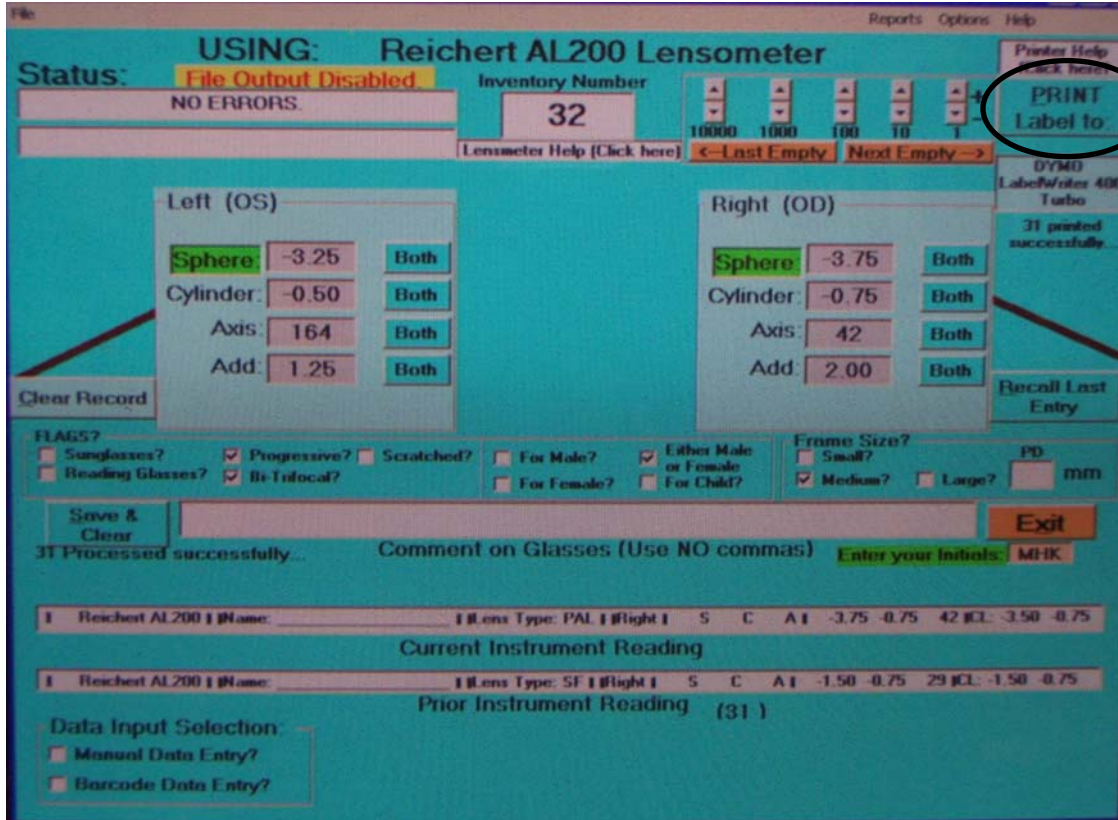


Press PRINT button as shown.



To record the bottom portion of the eyeglasses remember that you must push the circled blue button as shown in the above left. Pressing PRINT transfers the reading to the computer.

6. The screen of the PC will now show the below.



Click either “ For male, For Female, Either Male or Female, or Child” and then click the PRINT button circled above. The label will be printed. Put the label on the eyeglasses bag and place it in the box. Make sure the label is turned sideways (from end to end) on the eyeglasses bag.

6.0 In Summary

Hopefully this document has helped you to understand how to use the Reichert AL200 lensmeter in combination with the Kendall Optometry Ministry, Inc Glasses Reader program.