AKR 300

ESSILOR INSTRUMENTS

USER MANUAL

Contents

I. Introduction

The complete user manual is available on a web space.

To access other available languages, please scan the QR code at the end of this user manual > Chapter QR code *(p.59)*.

1. Important notice

This product may malfunction due to electromagnetic waves caused by portable personal telephones, transceivers, radio-controlled toys, etc. Be sure to avoid having objects as described which affect this product, brought near the product.

Upon request, circuit diagrams, component part lists, descriptions, calibration instructions, or other information will be provided to assist service personnel to repair parts of the equipment that are designated by ESSILOR INSTRUMENTS as repairable by service personnel.

2. Safety information

Accessory equipment connected to the analog and digital interfaces must be certificated according to the respective IEC standards (e.g. IEC 62368-1 for data processing equipment and IEC 60601-1 for medical equipment). Everybody who connects additional equipment to the signal input part or signal output part configures a medical system, and is therefore responsible that the system complies with the requirements of the system standard IEC 60601-1. If in doubt, consult the technical service department or your local representative.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual.

If such changes or modifications should be made, you could be required to stop operation of the equipment. ESSILOR INSTRUMENTS is not liable for any consequences linked to this product modification.

This product is compliant with CE marking.

This instrument complies with regulation 2017/745/UE.

This product is a class I medical device according to rule 13 from appendix VIII.

Date of first marking: August 2017.

The expected lifetime is 7 years.

3. Intended use

This product (AKR1KP) aims to objectively measure the refractive power of the eye by using the light that is projected to and reflected from the eyeground. It also aims to measure the radius of corneal curvature by using the light that is projected to and reflected from the cornea. These objective data will be used to proceed to a subjective refraction and lens or contact lens test in order to find the best prescription.

This product is for medical use which must be used under instructions of an eye care professional or a doctor.

No contraindication.

a. Symbols marked on the instrument

Symbol	Description
	Indicates the medical device manufacturer
	Indicates the date when the medical device was manufactured
	TYPE B applied part
	Alternative current
	Protective earth (ground)
	Indicates the need for the user to consult the instructions for use
CE	Mark of compliance with applicable European directives
MD	Medical device

	Refer to instruction manual
	Indicates the need for the user to consult the instructions for use for important cautionary information such as warnings and precautions that cannot, for a variety of reasons, be shown on the medical device itself.
O	OFF (power: disconnect to the mains)
I	ON (power: connection to the mains)
	Do not place your hand or fingers between the stage and base. Also ensure that the examinee does not place his/her hand or fingers there either. Otherwise, hand or fingers may be hurt.
	• All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities • The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health • For more detailed information about disposal of your old appliance, please contact your local Essilor Instruments distributor

b. Symbols marked on the instrument's packaging

Symbol	Description
	Indicates a medical device that needs to be protected from moisture
	Indicates the temperature limits to which the medical device can be safely exposed
	Indicates the hygrometry limits to which the medical device can be safely exposed
	Indicates the air pressure limits to which the medical device can be safely exposed
	Fragile
	Handle with care
	This side up – carton box orientation
	Do not use hook for handling

c. Disposal

	Instructions for the disposal of the instrument in accordance with Directives 2012/19/EU and 2011/65/EU regarding the limitation of dangerous substances in electrical and electronic equipment and the disposal of electrical and electronic waste. When it reaches the end of its lifetime, the instrument should not be thrown out with the household refuse. It can be disposed of at a waste management center operated by the municipality or the retailers who offer this service. The separate disposal of an electrical device avoids any damage to the environment or health that could result from a non-compliant disposal, and also allows the materials it is composed of to be recycled in order to save energy and resources. The pictogram of the wheeled container appears on the label of the instrument. It indicates the obligation for separate collection and disposal of end-of-life/out-of-use electrical and electronic equipment.

Caution	This instrument incorporates a lithium battery, which may pollute the environment if the instrument is abandoned. Please ask a professional waste disposal company to handle disposal, or contact ESSILOR INSTRUMENTS representative or distributor before disposing of the instrument.

d. General safety information

If you see any warnings or cautions printed on the warning labels, follow the safety instructions in this manual. Ignoring such cautions or warnings while handling the product may result in injury or accident. Be sure to read and fully understand the manual before using this product.

Keep this manual in easy-to-access place.

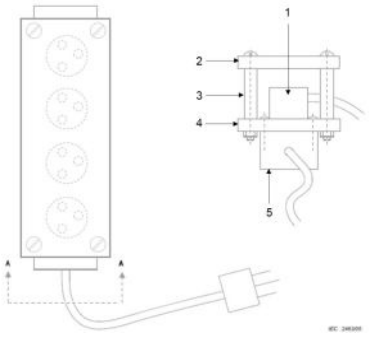
Any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

e. Meaning of caution sign

Caution Sign	Description
Warning	This indicates a potentially hazardous situation which could results in death or serious injury to you or others.
Caution	This indicates hazardous situations which may result in minor injury to you or others, or may result in machine damage.
Note	This is used to emphasize essential information. Be sure to read this information to avoid incorrect operation.
Warning	Only operate the instrument with the power supply indicated on the rating plate. Otherwise, it may result in fire or electric shock.
Warning	Be sure to turn OFF the power switch before connecting or disconnecting the cables. Also, do not handle them with wet hands. Otherwise, you may get an electric shock that may result in death or serious injury.
Warning	Never disassemble or modify this instrument because it may result in fire or electric shock. Also, since this instrument incorporates high-voltage parts and other hazardous parts, touching them may cause death or serious injury.
Warning	Should any of the following occur, immediately turn OFF the power switch, unplug the power cable from the AC outlet, and contact the dealer or the agent who/where you purchase this instrument. • When there is smoke, strange odour or abnormal sound. • When liquid has been spilled into the instrument or a metal object has entered through an opening. • When the product has been dropped or its housing damaged.
Warning	To avoid the risk of electric shock, this equipment must only be connected to power supply with protective earth.
Caution	This instrument is shipped with a grounding type power cable. To reduce the risk of electric shock, always plug the cable into a grounded power outlet.
Caution	Ensure that the examinee has not placed his/her hand or fingers under the chinrest. Otherwise, hand or fingers may be hurt.
Caution	Wipe the forehead rest with ethanol or glutaraldehyde solution to disinfect it each time a different examinee uses it, in order to prevent infection.

⚠ Caution	Change the chinrest paper each time the examinee changes in order to keep the chinrest clean.
⚠ Caution	Do not place your hand or fingers between the stage and base. Also ensure that the examinee does not place his/her hand or fingers there either. Otherwise, hand or fingers may be hurt.
⚠ Caution	Do not use the device simultaneously with other electronic equipment to avoid electromagnetic interference with the operation of the device.
⚠ Caution	Do not use the device near, on, or under other electronic equipment to avoid electromagnetic interference with the operation of the device.
⚠ Caution	Do not use the device in the same room with other equipment such as life-support equipment, other equipment that has major affects on the life of patient an results of treatment, or other measurement or treatment equipment that involve small electric current.
⚠ Caution	Do not use the device simultaneously with portable and mobile radio frequency communication systems because it may have an adverse effect on operation of the device.
⚠ Caution	Do not use cables and accessories that are not specified for the device because that may increase the emission of electromagnetic waves from the device or the system and decrease the immunity of the device to electromagnetic disturbance.
⚠ Caution	Do not position the equipment to make it difficult to operate the disconnection device. (Appliance coupler or separable plug).
⚠ Caution	Do not place the multiple socket-outlets for AKR300 system on the floor in order to prevent liquid penetration and damage to the product.
⚠ Caution	AKR300 system shall not be connected with additional multiple socket-outlets or extension cords in addition to a designated single multiple socket-outlet.
⚠ Caution	Maximum permissible load of each socket-outlet used for the AKR300 system, shall not be less than 100VA.
⚠ Caution	If non-medical electrical equipments (e.g. video monitor, IT equipment, etc.) that are connected with the AKR300 are, directly connected to the wall socket-outlets, high touch current may flow since the earth continuity is not ensured.
⚠ Caution	Multiple socket-outlets should be a grounding-type and complied with IEC 60884-1.

View from A-A (male plug connected)



Connection of the plug shall be possible only by using the tool.
1 : Male plug ME equipment
2 : Cover
3 : Spacers
4 : Plate fixed on MSO
5 : MSO

II. Features

1. Various measurements supported

   Not only the usual refractometry and keratometry, but also corneal diameter and base curve of contact lens can be measured with this one instrument. Thus, measurements of eye and prescriptions for glasses and contact lenses can be made more efficiently.

2. Wide dioptric measurement range

   Because the AKR300 covers a wide measurement range, from –25D to +22D, even an examinee with strong myopia can be measured.

3. More accurate measurement

   You can measure more accurately because foggy method of the eye fixation target makes the examinee's eye comfortable.

4. Pupil Distance (PD) can be measured.

5. Customized specifications

   You can change the measurement modes, delete unnecessary modes, and/or change order for printing results.

6. User-friendly operation features

   Depending on your convenience, you can use the touch and the button.

7. Easy connection with other equipments

   This instrument is designed to connect other equipments using RS232 or USB communication.

8. External VGA monitor display supported

   You can connect VGA monitor for the external display.

9. Economic printing mode

   Letter size and arrangement, depending on the mode of printing adjusted to the paper, can be saved.

10. Eye image save function

    Eye images (Identified in the [ILLUM] mode) are stored on your PC through USB communication.

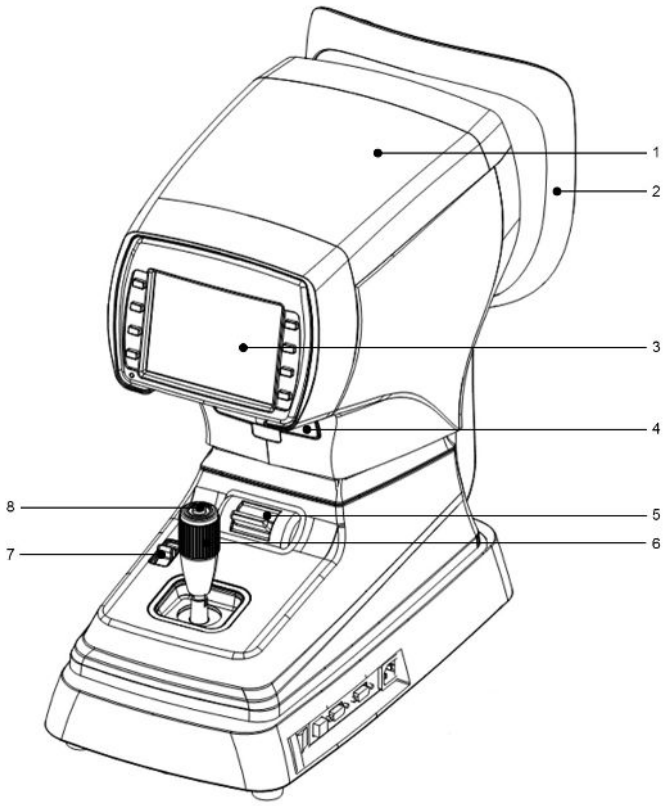
Special PC application and USB drivers are provided.

III. Notes for using the instrument

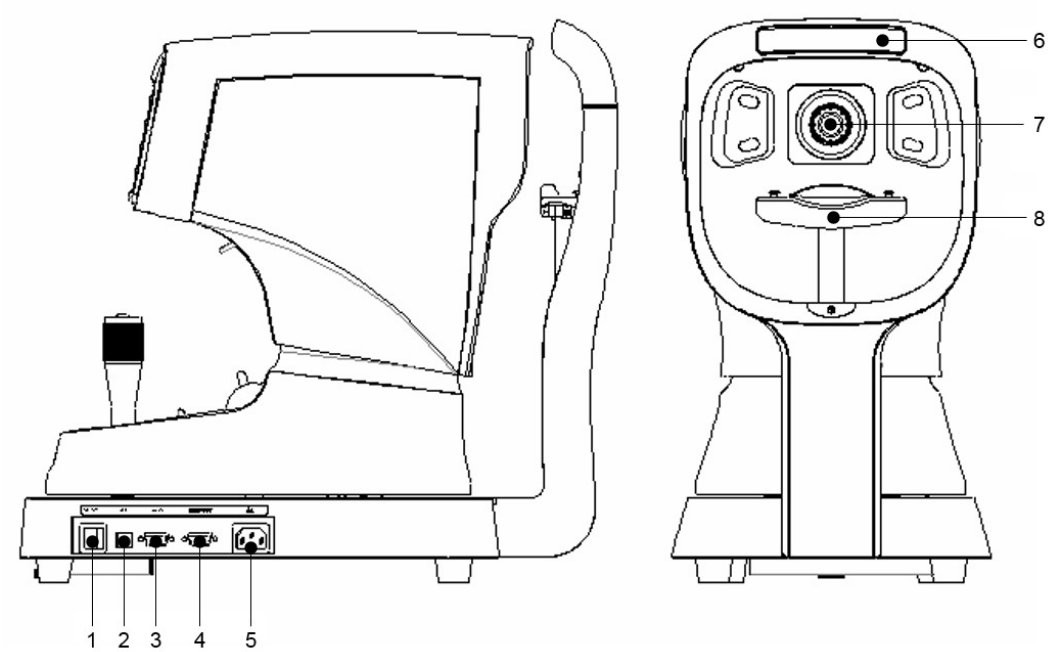
1. Do not hit or drop the instrument. The instrument may be damaged if it receives a strong impact. The impact can damage the function of this instrument. Handle with care.
2. Exposure to the direct sunlight or too bright indoor lights can influence on the result of accurate measurement.
3. If you want to connect this with other equipments, consult the dealer.
4. Sudden heating of the room in cold areas will cause condensation on the protective glass in the measurement window and on optical parts inside the instrument. In this case, wait until condensation disappears before performing measurement.
5. Keep clean the objective glass of the examinee side. If it is stained with other substance, it may effect on error or inaccurate measurements.
6. Don't press the [Touch] button on LCD monitor by nail or sharp object. It may make scratch on the surface of LCD.
7. Disconnect the power supply and consult the dealer in case there is smoke, strange odor or noise on working.
8. Don't use organic solution such as alcohol, thinner, benzene, etc. to clean the surface of this instrument. It may damage the instrument.
9. When moving this AKR300, fix the stage by using stage holding knob, always check if the power supply is off, and then lift the bottom of the unit with both hands.
10. If you leave AKR300 without using for certain period, disconnect the power supply and protect the unit with dust cover.

IV. Description

1. Main unit



No.	Name	Function
1	Measurement head	Unit that performs measurement.
2	Height adjustment mark	Align the height of the examinee's eye with this mark by adjusting the height of chinrest.
3	Monitor	Monitor that displays measurement and [SET] modes displays.
4	Printer	Print the measured result.
5	Stage holding lever	Holds the movement of stage (sliding table).
6	Operation lever	Use this lever for alignment and focusing.
7	Chinrest lever	Align the height of chinrest up and down.
8	Measuring button	Press this button for measurement.



No.	Name	Function
1	Power switch	Switch for turning power ON and OFF.
2	USB	USB connector for other instruments.
3	RS232	RS-232 connector for other instruments.
4	Video output	Connector for the VGA monitor cable.
5	Power supply connector	Connector for the power supply cable.
6	Forehead rest rubber	Place the examinee's forehead against this rest.
7	Measurement window	Window for the examinee to look into for measurement.
8	Chinrest	Place the examinee's chin on this rest.

If you want to connect the input / output signal ports and other devices that must meet IEC standards (IEC62368-1 IT equipment, IEC60601 medical equipment).

If in doubt should contact ESSILOR INSTRUMENTS or your authorized distributor.

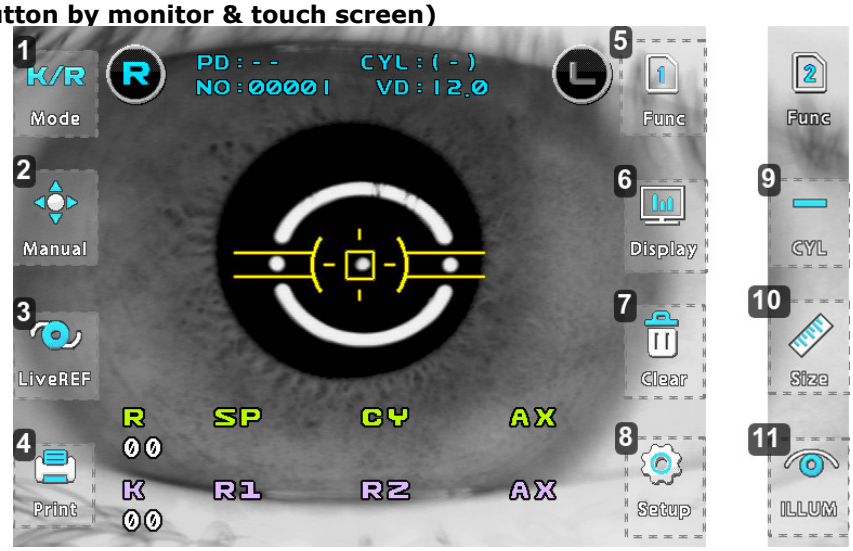
The materials composed of the parts that contact the patient during measurement are as follows. Do as much as possible to avoid contact.

- Forehead rest: silicon rubber

2. Operation panel

Chinrest lever		This lever is for rasing/lowering the chinrest. Press “up” lever in order to raise and “down” lever to lower the chinrest.

[Touch] button (button by monitor & touch screen)



1. *[K/R] mode*

   Press this button in order to change measurement mode.

2. *[Manual]*

   Press this button in order to start manual or automatic measurement.

3. *[LiveREF]*

   Press this button when the examinee's eye is difficult to measure due to cataract or examinee with intraocular lens.

4. *[Print]*

   Press this button in order to print or transfer the measurement.

5. *[Func]*

   Press this button in order to change function mode.

6. *[Display]*

   Press this button in order to enter [Display] mode, where you can see measurement data stored in memory.

7. *Press this button to clear all stored data in memory.*

8. *[Setup]*

   Press this button in order to enter [Setup] mode, where you change all the settings about measurements, printouts, etc.

9. *[CYL]*

   Press this button in order to change [CYL] form.

10. *[Size]*

    Press this button in order to enter [Size] mode, where you can measure the diameter of cornea, etc.

11. *[Illum]*

    Press this button in order to enter [RET] (Retroillumination) mode, where you can observe the image obtained by retroillumination.

V. PRACTICING THROUGH MODEL EYE

Practice measurement by using the accessory test model eye before doing the actual measurement.

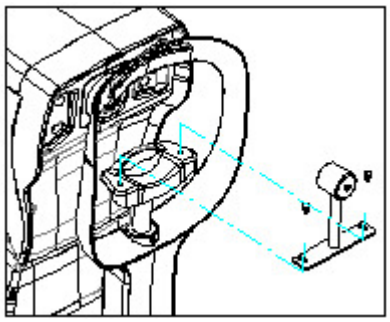
1 - Turn ON the power

Turn ON the power switch of the instrument.

2 - Attach the model eye

Remove the chinrest paper and align the holes on the base of the model eye with the holes on the chinrest.

And insert pins.



3 - Release stage lock

Turn the stage holding knob in counter clockwise direction to release the stage lock.

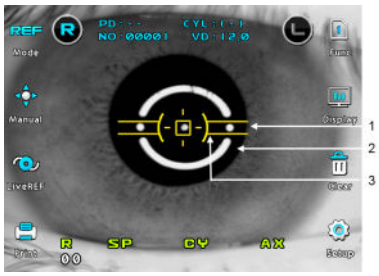
4 - Adjust height of test model eye

Adjust the height of the chinrest by pressing [Chinrest lever] so that the test model eye is aligned with the "height adjustment mark" on the face rest.

5 - Enter [K/R] or [REF] mode

If neither [K/R] or [REF] is displayed on the monitor, press [Mode] button until either one is displayed.

6 - Adjust the position and focus on the model eye



1. Outer alignment mark
2. Mire image
3. Inner alignment mark

Looking at the monitor, incline the operation lever toward the model eye until a bright dot appears near the inner alignment mark. Place the bright dot in the center of inner alignment mark. If position cannot be adjusted just by inclining the operation lever, slide the lever in the direction required.

Focus on the model eye by inclining the operation lever forward and backward so that the mire ring image is displayed clearly on the monitor.

7 - Manual measurement

(a) Adjust the position and focus on the model eye like the procedure 6.

(b) Press the measuring button. At this point, if measurement is failed with messages like [Error], repeat the procedure (a) and press the measuring button again.

(c) Check whether diopter value is measured or not. Diopter value is recorded in the bottom area of the model eye. If you are not satisfied with the measured value, measure in the same way and check again.

8 - Automatic measurement

Press the [Auto] button on the operation panel.

Adjust the position and focus on the model eye like the procedure 6 at previous page.

When the bright dot enters the inner alignment mark and model eye is in focus properly, measurement starts automatically.

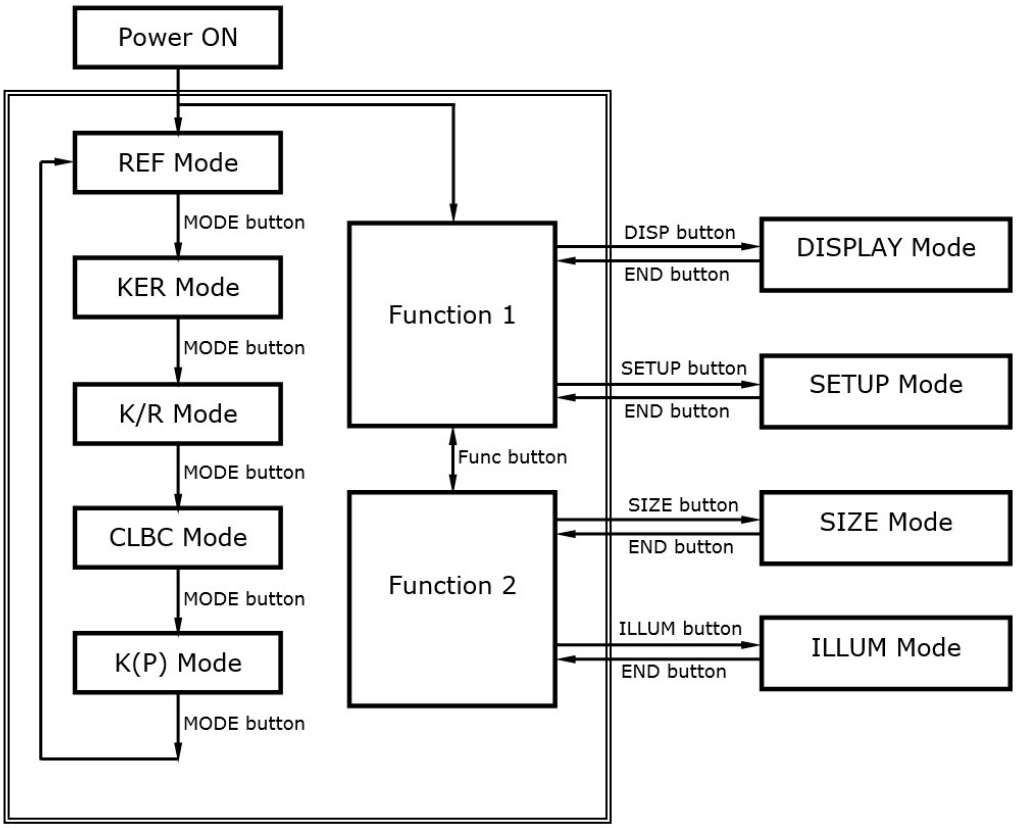
Execute the procedures (c) of manual measurement.

Continuous measurement starts automatically and will be performed 3 times or 5 times. (See chapter VII - Other modes > Setup mode).

VI. Measurement

Warning	Should any of the following occur, immediately turn OFF the power switch, unplug the power cable from the AC outlet, and contact the dealer or the agent who/where you purchase this instrument. 1. When there is smoke, strange odor or abnormal sound. 2. When liquid has been spilled into the instrument or a metal object has entered through an opening. 3. When the product has been dropped or its housing damaged.

Relation between buttons and modes.



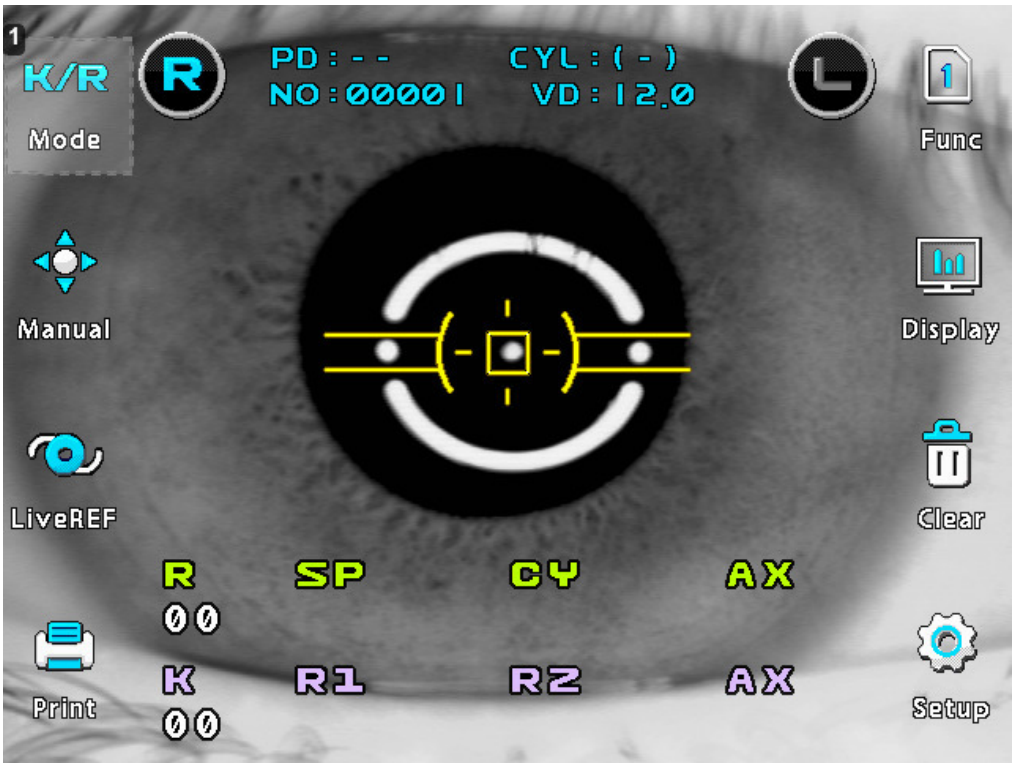
[LiveREF] button will be enabled at [K/R] mode and [REF] mode only. If [LiveREF] button is pressed, [LiveREF] measurement will be performed and pressed again to render the basic measurement.

1. Continuous keratometry and refractometry - [K/R] mode

In the [K/R] mode, refractometry is automatically performed after keratometry.

1 Enter [K/R] mode.

Press [Mode] button until [K/R] is displayed on the right side of the display.



1. *[K/R] mode*

2 Adjust height of examinee's eye.

⚠ Caution	Ensure that the examinee has not placed his/her hand or fingers under the chinrest. Otherwise, hand or fingers may be hurt.
⚠ Caution	Wipe the forehead rest with ethanol or glutaraldehyde solution to disinfect it each time a different examinee uses it, in order to prevent infection.
⚠ Caution	Change the chinrest paper each time the examinee changes in order to keep the chinrest clean.

Have the examinee sit and place his/her chin and forehead against the chinrest and forehead rest.

Adjust the height of the chin by pressing [Chinrest lever] so that the eye of the examinee is aligned with the height adjustment mark on the face rest.

3 Perform alignment and focusing.

⚠ Caution	Do not place your hand or fingers between the stage and base. Also ensure that the examinee does not place his/her hand or fingers there either. Otherwise, hand or fingers may be hurt.

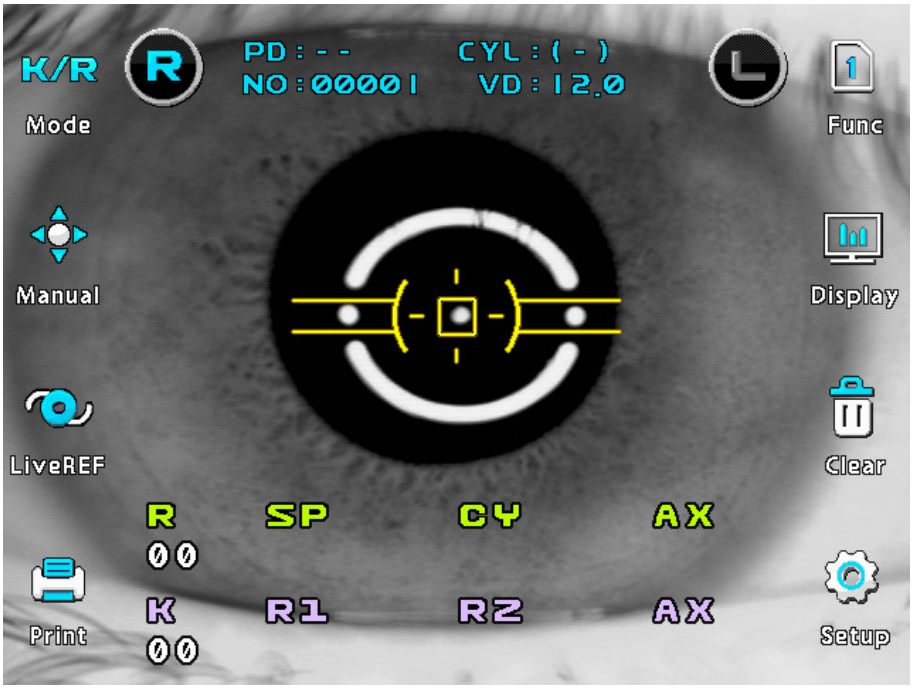
Slide the operation lever to the left so that the right eye of the examinee is displayed on the monitor.

Ask the examinee to look at the red roof in the center of the scene (eye fixation target).

Looking at the monitor, check that image of the mire ring is not obscured by the upper eyelid. If it is covering the ring, instruct the examinee to keep his/her eye opened wide until measurement ends. Or help them open the eye wider by lifting up his/her upper eyelid lightly with your fingers.

Looking at the monitor, incline the operation lever to right or left, and turn the operation lever so the pupil is concentric with the inner alignment mark. If the pupil is large, align it with the outer alignment mark.

Focus on the mire image by inclining the operation lever forward and backward.

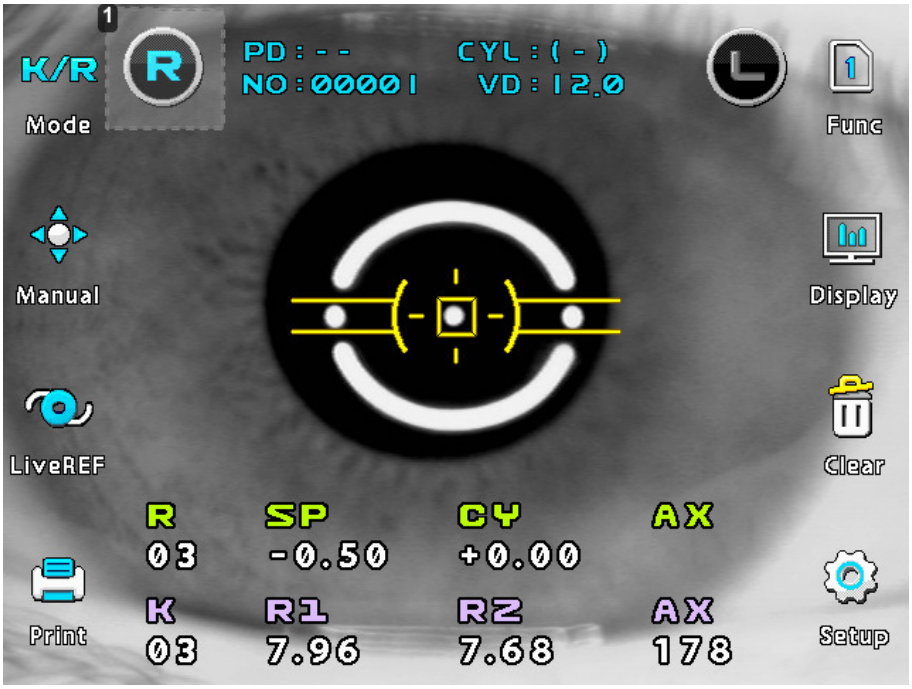


1. Slide stage to the forward/backward and right/left if you are unsatisfied with the operation lever control.
2. If the alignment marks and the pupil are not concentric, instruct the examinee to look at the red roof at the center of the picture. Otherwise, measurement error may occur due to aberration.

4 Measurement.

Press the measuring button. Measurement will be continuously performed when the measuring button is kept pressed.

1. The newest measured results will be displayed on the monitor.
2. In case of the continuous measurement, the result of previous measurement will be displayed.
3. If you change setting at PAGE 1 of [Setup] mode, you can select the vertex distance.
4. If you change setting at PAGE 1 of [Setup] mode, you can change display format of [CYL] value.
5. When measured results are displayed, changing at PAGE 1 of [Setup] mode renders each cornea measured result of R1/R2/AX > K1/K2/AX > AR/CY/AX displayed in turn.



1. *Right eye selected*

1. There can be error if the outer alignment mark and the pupil are eccentric.
2. There may be some aberration to the measurement value due to the eccentricity or inclination of lens, or deformation of cornea after surgery.
3. Reliability of the measurement with [LiveREF] switch turned ON may be low.

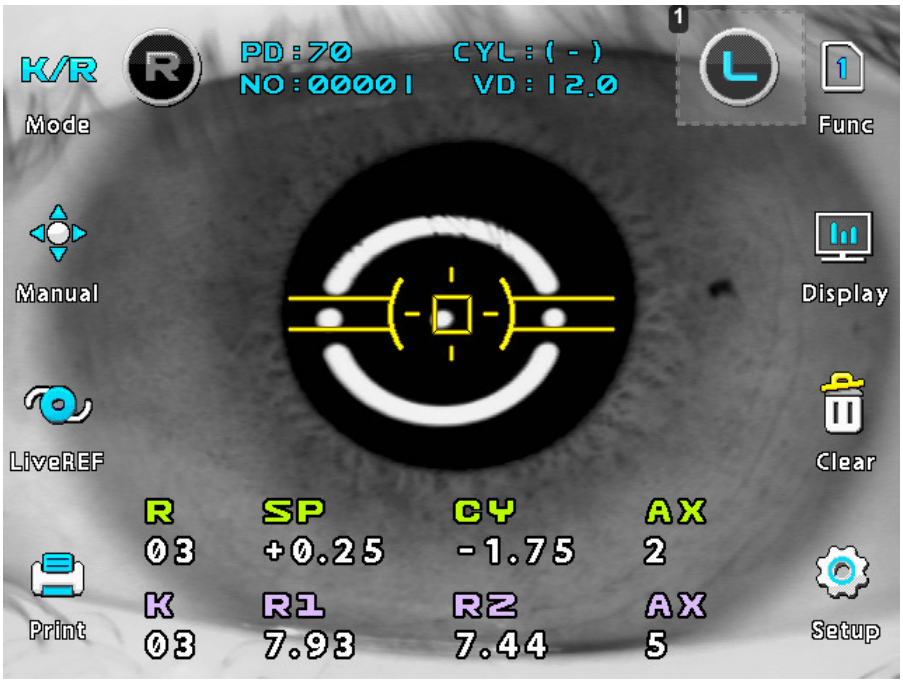
5 Repeated measurement.

Measurement could be repeatedly performed if necessary.

- The newest result will be displayed on the monitor whenever measured.
- Maximum of 10 newest data items for both right and left eyes will be stored in memory except error data. And those data can be showed in the [Display] mode window.

6 Measure the other eye.

Slide the stage to the right side and measure the left eye.



1. *Left eye selected*

- After both eyes are measured, pupil distance (PD) will be displayed on the monitor.
- If stage is slid to the right eye again without pressing the [Print] button, the last measurement will be displayed. And when measuring button is pressed, the new value will be added to them.

Safety information about infrared light radiation for measurement:

As light sources for measurement, this instrument adapted two type of infrared LED. It was chosen to satisfy the amount of energy exiting from the instrument never exceed the limit value recommended by the international standard ISO 15004. This condition is satisfied even when the instrument is operating at maximum light intensity and maximum aperture. (Maximum intensity is the highest brightness the instrument is capable of delivering, including the highest brightness achievable if over voltage is provided).

Detailed radiation information at normal usage of this instrument is like bellows.

1. Keratometry @ 770nm (LED type IWL-BR30F):

   - Output < 0.03 mW/cm²

   (Group 1 limit≤20mW/cm² for unweighted corneal and lenticular infrared radiation irradiance, EIR-CL @ wavelength of 770 to 2500nm, acc. To ISO15004-2:2007, 5.4.1.4)

2. Refractometry @ 880nm (LED type HE8807SG):

   - Output < 0.15 mW/cm²

   (Group 1 limit≤0.7mW/cm² for weighted retinal visible and infrared radiation thermal hazard, EVIR-R @ wavelength of 380 to 1400nm, acc. To ISO15004-2:2007, 5.4.1.6 a)

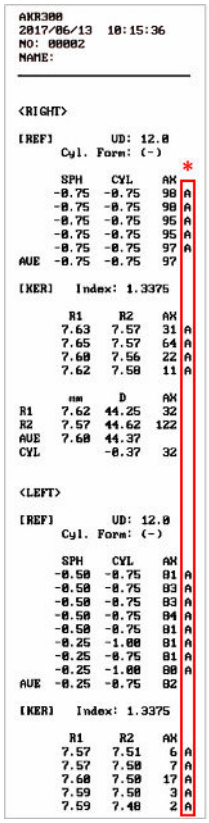
7 Print.

Press the [Print] button. The selected data in the [Setup] mode will be printed. (See chapter VII - Other modes > Setup mode > Keratometry).

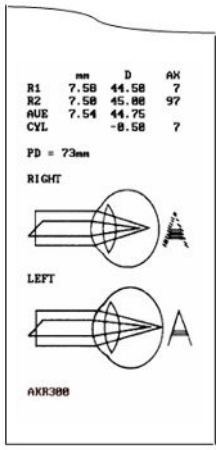
Lift the printing paper from one side and give it a sharp tug to tear it off after printing is completed. Fill the name of the examinee in the [Name] box if necessary.

- Results will be erased after printing/transfer is performed.
- It is recommended that a hard copy of the printouts be made if you wish to store it for a long time, because printouts on the thermal paper are apt to deteriorate.

Example of printout:



```
AKR300
2017/06/13  10:15:36
NO: 00002
NAME:
--------------------

<RIGHT>

[REF]        UD: 12.0
     Cyl. Form: (-)
                      *
     SPH    CYL    AX
   -0.75  -0.75   90 A
   -0.75  -0.75   90 A
   -0.75  -0.75   95 A
   -0.75  -0.75   95 A
   -0.75  -0.75   97 A
AVE -0.75  -0.75   97

[KER]   Index: 1.3375

      R1     R2    AX
    7.63   7.57   31 A
    7.65   7.57   64 A
    7.60   7.56   22 A
    7.62   7.58   11 A

      mm      D    AX
R1  7.62  44.25    32
R2  7.57  44.62   122
AVE 7.60  44.37
CYL       -0.37    32

<LEFT>

[REF]        UD: 12.0
     Cyl. Form: (-)

     SPH    CYL    AX
   -0.50  -0.75   81 A
   -0.50  -0.75   83 A
   -0.50  -0.75   83 A
   -0.50  -0.75   84 A
   -0.50  -0.75   81 A
   -0.25  -1.00   81 A
   -0.25  -0.75   81 A
   -0.25  -1.00   80 A
AVE -0.25  -0.75   82

[KER]   Index: 1.3375

      R1     R2    AX
    7.57   7.51    6 A
    7.57   7.58    7 A
    7.60   7.58   17 A
    7.59   7.58    3 A
    7.59   7.48    2 A
```



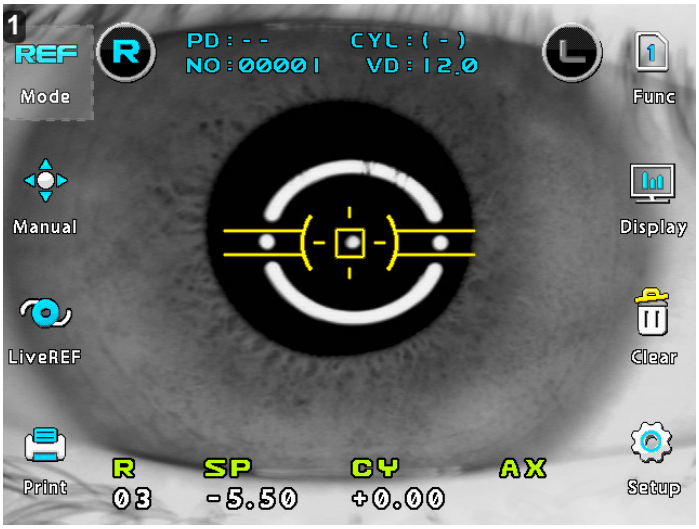
*: Confidence of result

Level	Quality
A B C D E	(Hight) ↕ (Low)

2. Refractometry - [REF] mode

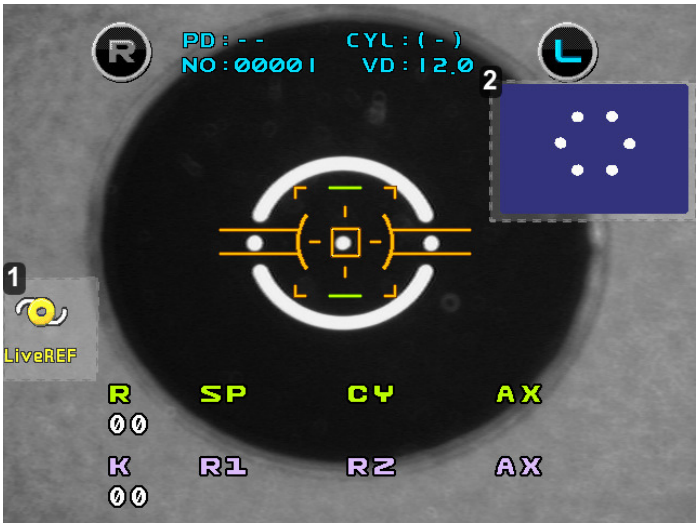
Only refractometry can be performed in the [REF] mode.

1. Enter [REF] mode.
   Press [Mode] button until [REF] is displayed on the right side of the display.
2. Follow the same procedure no.2 of the continuous keratometry and refractometry [K/R] mode.
3. Perform alignment and focusing.
   Align the pupil and alignment marks, and focus on the mire image by using the operation lever.
4. Measurement.
   Press the measuring button. Measurement will be continuously performed when the measuring button is kept pressed.
   - If you change setting at PAGE 1 of [Setup] mode, you can select the vertex distance.
   - If you change setting at PAGE 1 of [Setup] mode, you can change display format of [CYL] value.



1. *[REF] mode*

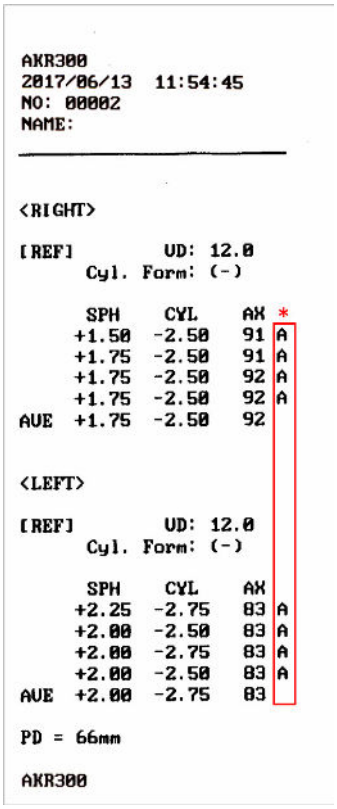
- There can be error if the outer alignment mark and the pupil are eccentric.
- There may be some aberration to the measurement value due to the eccentricity or inclination of lens, or deformation of cornea after surgery.
- If error occurs or the measurement value is instable during the REF measurement, follow as the below instructions:
  - Click the [LiveREF] button then [REF] image is shown on the monitor.
  - Make the six circles seen clearly by moving the operation lever.
  - Measure the [REF] by clicking the measurement button.



1. *[LiveREF] button*
2. *REF image*

5 Follow the same procedure (5)~(7) of the continuous keratometry and refractometry [K/R] mode.

Example of printout:



```
AKR300
2017/06/13  11:54:45
NO: 00002
NAME:
_____________________

<RIGHT>

[REF]        UD: 12.0
      Cyl. Form: (-)

      SPH     CYL     AX *
    +1.50   -2.50    91 A
    +1.75   -2.50    91 A
    +1.75   -2.50    92 A
    +1.75   -2.50    92 A
AVE +1.75   -2.50    92

<LEFT>

[REF]        UD: 12.0
      Cyl. Form: (-)

      SPH     CYL     AX
    +2.25   -2.75    83 A
    +2.00   -2.50    83 A
    +2.00   -2.75    83 A
    +2.00   -2.50    83 A
AVE +2.00   -2.75    83

PD = 66mm

AKR300
```

*: Confidence of result

Level	Quality
A B C D E	(Hight) ↕ (Low)

3. Keratometry - [KER] mode

Only the radius of curvature of the cornea can be measured in [KER] mode.

Don't measure the base curve of contact lens in this mode. Measurement error will occur when it is measured in [KER] mode.

1 Enter [KER] mode.

Press [Mode] button until [KER] is displayed on the right side of the display.

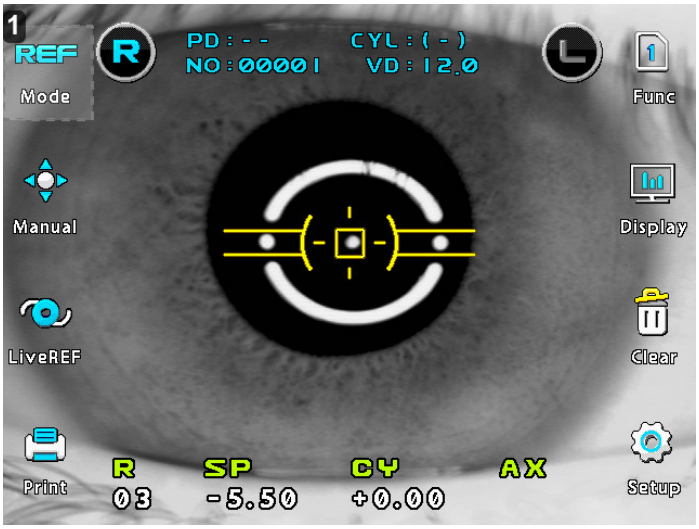
2 Follow the same procedure (2) and (3) of the continuous keratometry and refractometry [K/R] mode.

3 Measurement.

Press the measuring button.

Measurement will be continuously performed when the measuring button is kept pressed.

- The measured results will be displayed on the monitor.
- In case of the continuous measurement, previous measured result will be displayed.
- When measured results are displayed, changing at PAGE 1 of [Setup] mode renders each cornea measured result of R1/R2/AX > K1/K2/AX > AR/CY/AX displayed in turn.



1. *[REF] mode*

4 Follow the same procedure (5)~(7) of the continuous keratometry and refractometry [K/R] mode.
Example of printout:

```
AKR300
2017/06/13  12:45:23
NO: 00003
NAME:
_____________________

<RIGHT>

[KER]   Index: 1.3375

       R1     R2    AX  *
     7.56   7.41   154  A
     7.55   7.40   154  A
     7.55   7.41   159  A
     7.56   7.41   158  A

       mm      D     AX
R1   7.55   44.75   156
R2   7.41   45.50    66
AVE  7.48   45.25
CYL          -0.75   156

<LEFT>

[KER]   Index: 1.3375

       R1     R2    AX
     7.53   7.40     1  A
     7.55   7.40     4  A
     7.53   7.39   179  A
     7.54   7.39     1  A

       mm      D     AX
R1   7.54   44.75     1
R2   7.40   45.50    91
AVE  7.47   45.25
CYL          -0.75     1

PD = 58mm

AKR300
```

*: Confidence of result

Level	Quality
A B C D E	(Hight) ↕ (Low)

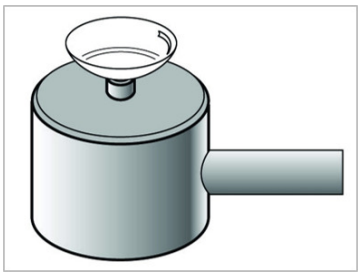
4. Contact lens base curve measuremement - [CLBC] mode

Base curve (posterior curve) of hard contact lens can be measured in the [CLBC] mode.

1. Enter [CLBC] mode.

   Press [Mode] button until "[CLBC] is displayed on the right side of the display.

2. Attach contact lens.



   Put water in the concave section of contact lens holder at backside of the test model eye and place the contact lens on the holder with the concave surface facing upward. Contact lens is attached by surface tension. Take care that the contact lens is not attached inclined. Also, take care that there are no bubbles behind the contact lens.

3. Attach the test model eye.

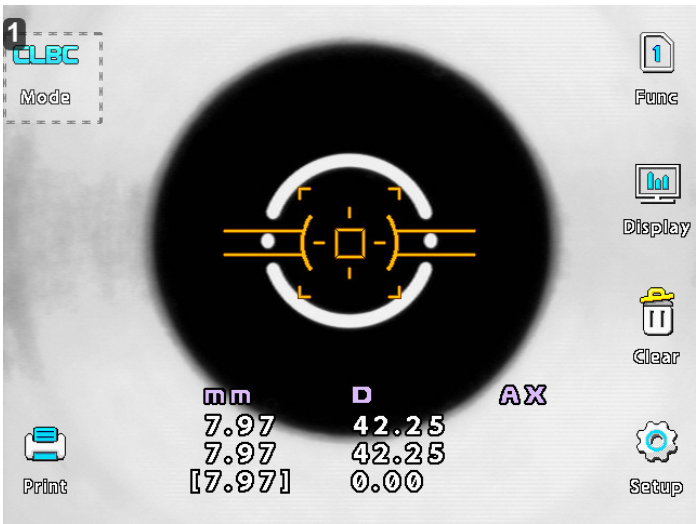
   Remove the chinrest paper. Fix the model eye attached with contact lens using pin. Place the contact lens to face the measurement window.

4. Perform alignment and focusing.

   Align alignment marks and mire image. Then, focus on the mire image.

5. Measurement.

   Press the measuring button. Measured results will be displayed on the monitor.



   1. *[CLCB] mode*

6. Print.

   Press the [Print] button.

5. Peripheral keratometry - [K(P)] mode

In [K(P)] mode, peripheral corneal curvatures can be measured by having the examinee look at the peripheral eye fixation lamps. Measuring the corneal periphery will help you examine irregular astigmatism, and also determine a better fitting for a contact lens.

There are two modes for lighting the peripheral eye fixation lamps:

1. [AUTO] mode: After measuring the center of cornea, four peripheral eye fixation lamps light automatically in turn according to the corneal astigmatism axis.
2. [MANU] mode: Peripheral eye fixation lamp to be lit can be selected from eight positions by pressing the touch screen.

When you enter this mode after measuring the center of cornea in [K/R] or [KER] mode, or if you measure the center first after entering this mode, you will automatically enter [AUTO] mode first.

1. Enter [K(P)] mode.

   Press [Mode] button until [K(P)] is displayed on the right side of the display.

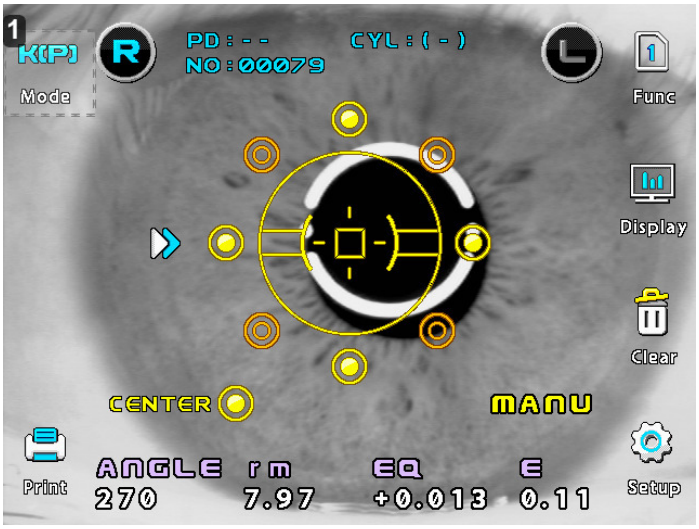
2. Follow the same procedure (2) and (3) of the continuous keratometry and refractometry [K/R] mode.

   Have the examinee look at the lit peripheral eye fixation lamp. Blinking circle on the monitor show the lamp at the examinee's side is lit in order to make measurement.

   Looking at the monitor, align the mire image and alignment mark, and focus on the mire image by using the operation lever.

3. Measurement.

   After ensuring that the positioning and focusing are proper, press measuring button.



1. *[K(P) mode*

[AUTO] mode

After each measurement, the target at the position to be measured next blinks automatically on the monitor. Each time, have the examinee look at the lamp, perform alignment and focusing, and then measure.

If the center area has not been measured yet, the target on the left side of the word [CEN] on the monitor will be blink. Have the examinee look at the red roof in the center of the scenery, and measure.

If [ERR] is displayed as a result of measuring the center, peripheral eye fixation lamp will not light until the center is measured properly.

Change to MANU mode as required.

[MANUAL] mode

You can enter [Manu] (Manual) mode by pressing the touch screen. As you select one from eight target positions, the position of blinking target changes. Select the target, perform alignment and focusing, and measure.

- Only the value of the last measurement will be displayed on the monitor. You cannot see any one of the previous measurements even if you select the target which has already been measured by pressing the touch screen. Enter [Display] mode if you wish to see the result of measuring other parts. (See chapter VII - Other modes).

- Once you have entered [Manu] mode, you must end the measurement, press [Print] button, and start a new measurement in order to return to [Auto] mode.
- Eccentricity ([E] and [EQ]) will not be calculated unless the center of cornea is measured.

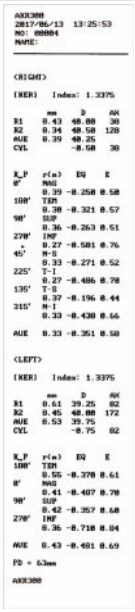
4 Repeat the measurement as required.

Measure the same eye for a second time as required.

5 Measure the other eye.

Measure the other eye in the same manner.

Example of printout:



Right Eye	Left Eye	Symbol
0'	180'	NAS
45'	135'	N-S
90'	90'	SUP
135'	45'	T-S
180'	0'	TEM
225'	315'	T-I
270'	270'	INF
225'	225'	N-I

- r(m): Radius of curvature on measured meridian
- EQ: Quadrate of eccentricity on measured meridian. (If the peripheral radius of curvature is larger than the center, +sign will be displayed. If it is smaller, -sign will be displayed).
- E: Eccentricity on measured meridian

VII. Other modes

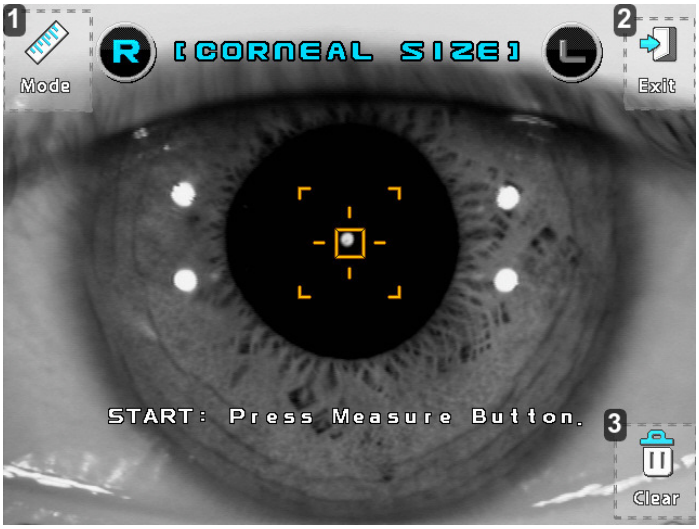
1. Measuring cornea diameter - [SIZE] mode

Diameter of cornea can be measured in [Size] mode for prescribing contact lens.

The size of pupil can also be measured to see how much it is dilated, and the size of contact lens can be measured without having the examinee remove it.

1 Enter [Size] mode.

Press [Size] button in the measurement mode. Press [Exit] button in order to go out [Size] mode.



1. *[Mode]*

   Change the mode ([CORNEAL SIZE] > [PUPIL SIZE] > [PD])

2. *[Exit]*

   Exit of the [Size] mode

3. *[Clear]*

   Unfreeze the image and delete the results.

2 Positioning and focusing.

Ask the examinee to look at the red roof of the eye fixation target.

Control operation lever to align the pupil between the two vertical bars.

- If the diameter of contact lens is going to be measured, focus on the edge of lens.
- If the diameter of pupil is going to be measured, focus on the iris.

3 [CORNEAL SIZE] measurement.

Press the measuring button to pause the window.

If the frozen image is not clear, you can unfreeze the image by pressing the [CAM] button.

To move the vertical bar by pressing the [>] button or [<] button.

1. *[CAM]*

   Unfreeze the image.

The measured value will be displayed on the monitor.

When you press the measuring button, it will save the measured value.

1. *Corneal size (mm)*

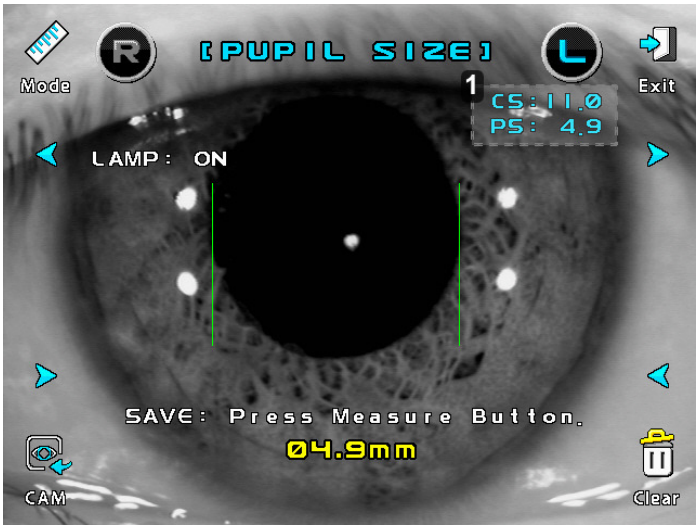
4 [PUPIL SIZE] measurement.

Press the [Mode] button to select [Pupil size] mode.

Press the measuring button to pause the window.

If the frozen image is not clear, you can unfreeze the image by pressing the [CAM] button.

To move the vertical bar by pressing the [>] button or [<] button.



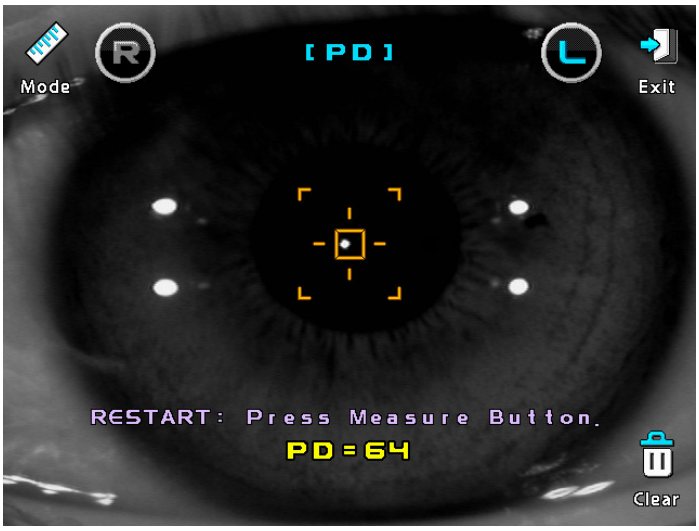
1. *Pupil size*

5 [PD] Measurement.

Press the [Mode] button to select [PD] mode.

After proper alignment of the right eye and left eye, press the measuring button each time.

When the measurement is complete, the PD is displayed on the screen.



6 Print and exit.

- Exit: returns to the measurement screen.
- Print: result of corneal diameter, pupil diameter, PD will be printed as each item.

2. Observe image obtained by retroillumination - [ILLUM] mode

By directing a light into the pupil, you can observe the condition of cataract or scratches on contact lens on the monitor in [ILLUM] mode.

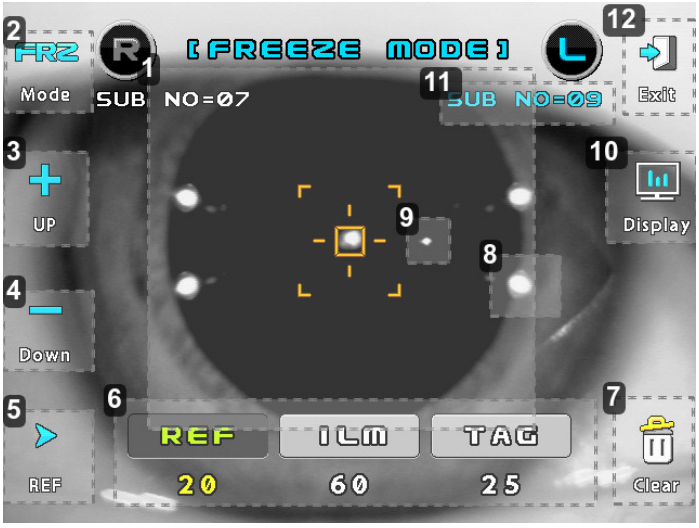
Maximum of ten images for each eye can be displayed and stored in one display.

You can select an image and display it in a magnified size.

You can upload an image and display it in a magnified size to a computer.

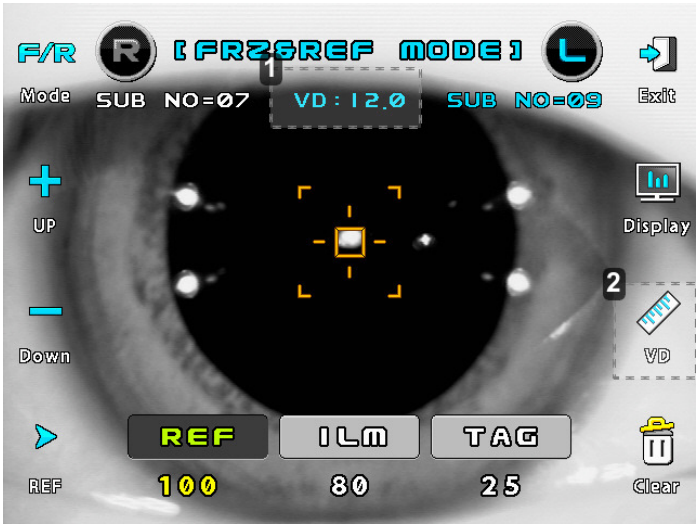
1 Enter [ILLUM] mode.

Press [ILLUM] button in the [Measurement] mode. Press [Exit] button in order to go out [ILLUM] mode.



1. *Pupil*
2. *[FRZ] mode*
   Change the mode ([Freeze ⇔ Frz/Ref])
3. *[Up]*
   Change the amount of light
4. *[Down]*
   Monitor amount of light
5. *[Ref]*
   Light source select
6. *[REF, ILM, TAG]*
   Light source
7. *[Clear]*
   Press [Clear] button to clear the image
8. *Light for eye front illumination reflected from cornea*
9. *Light for retro illumination reflected from cornea*
10. *[Display]*
    Press [Display] button to enter menu display
11. *Sub number*
12. *[Exit]*
    End of the [Illum] mode

[Freeze/Ref Mode] display:



1. *Vertex distance*
2. *[VD]*

   Press [VD] button to change the vertex distance

2 Ready for observation.

Ask the examinee to look at the red roof of the eye fixation target.

See procedure 3. of the continuous keratometry and refractometry [K/R] mode.

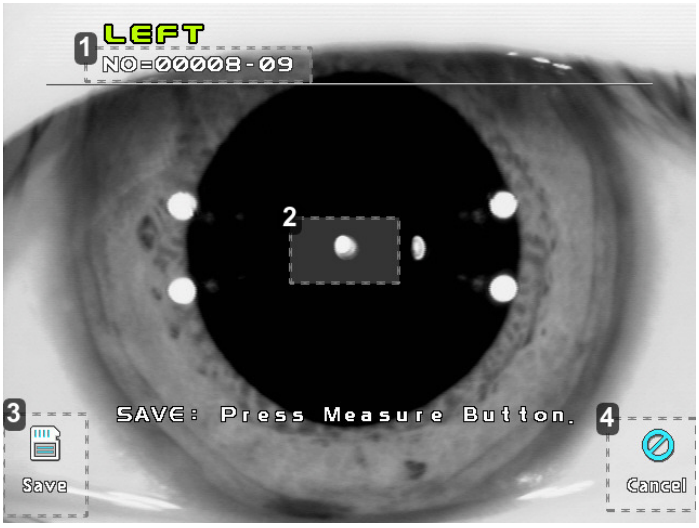
3 Observation.

- Adjust the amount of light of each light source so the image can be seen clearly. Press one of buttons for each light source on the upper side of display.

  The selected light source will be displayed in pressed button.

  - [RED]: Light source for retroillumination
  - [ILM]: Light source for illumination eye front
  - [TAG]: Light source for illuminating internal eye fixation target
  - Variable range: 0-100 (if it is set to 0, the light turns off)
- Position the light for retroillumination reflected from cornea to a part that is not opaque by using the operation lever. If the light is directed from the edge of the pupil, it will be easier to observe the image. Focus on the image.
- After confirming that the image is focused, press measuring button. The image will freeze.

[Freeze Mode display]:



1. *Serial number - Sub number*

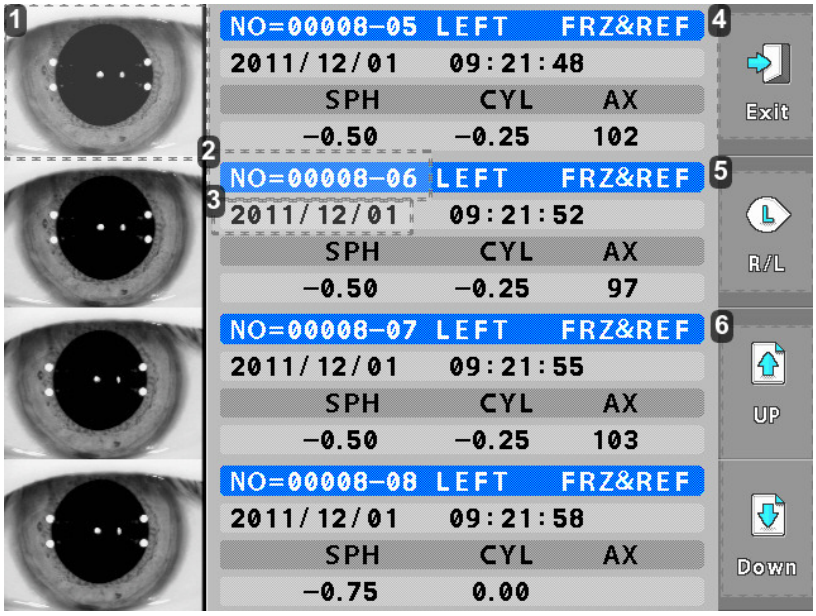
2. *Pupil*
3. *[Save]*
   Press [Save] button to store the image into memory
4. *[Cancel]*
   Press [Cancel] button not to store the image

1. *Result of refractometry*
   - Maximum of ten images can be stored for each eye. Each image will have a sub number (01~10).

4 Displaying of stored image.

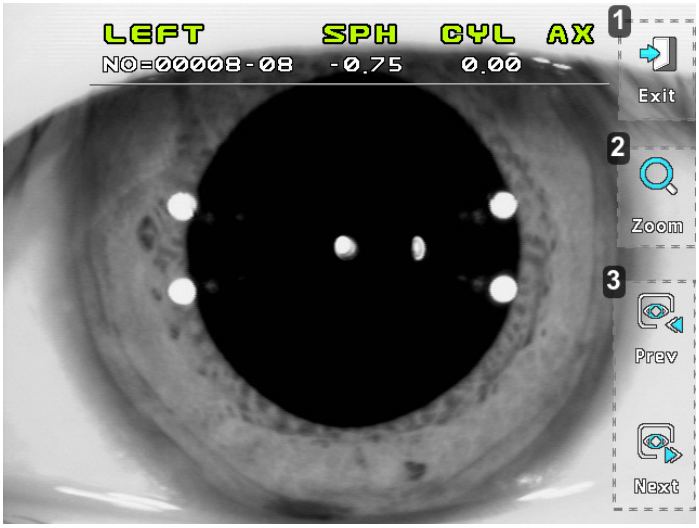
Press [Disp] button in observation display. Images stored in memory will be displayed.

[Menu Display]



1. Images of eye.
2. Serial number – Sub number.
3. Time of the selected image.
4. End of the DISPLAY mode.
5. RIGHT/LEFT SIDE eye mode.
6. Change images of eye.
   - When you press the image button, selecting image will be displayed.

[Standard Size Display / Double Size Display]:



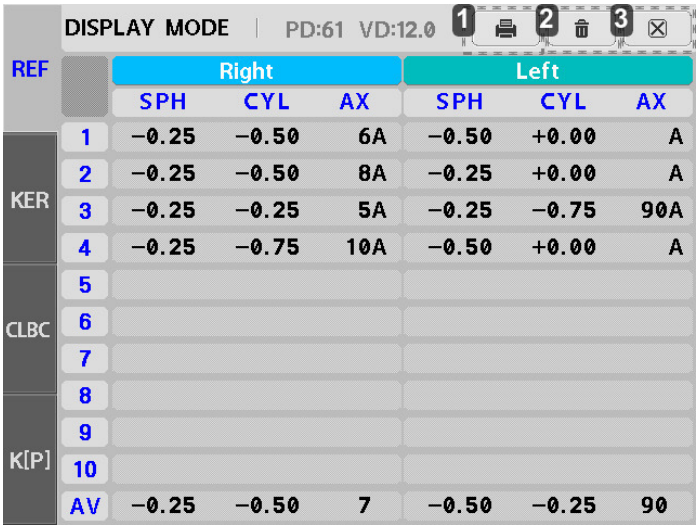
1. *[Exit]*
   End of the select image mode
2. *[Zoom]*
   Display in standard size or double size
3. *[Prev], [Next]*
   Change images of eye

- Image of double size can be moved by touching four directions (“↑”, “↓”, “→”,“←”).

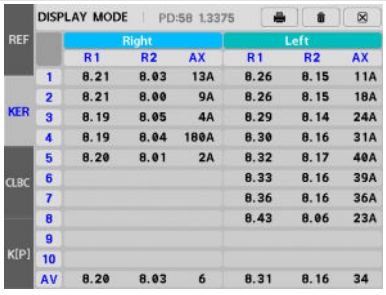
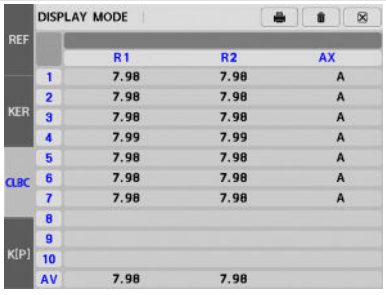
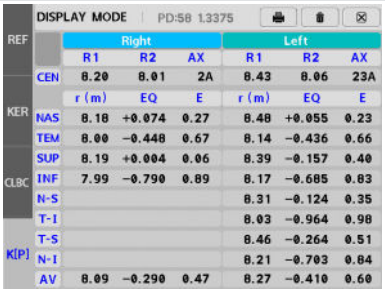
3. [Display] mode

The stored data (maximum 10 data for each eye) in memory can be displayed in this mode. To enter [Display] mode, press [Disp] button in the measurement mode. Press [Exit] button in order to go out [Display] mode.

- Press tab buttons on upper side of display. Result of selected page will be displayed.
- Press [Print] button to print the stored data.
- Press [Clear] button to clear all stored data in memory.



1. *Print button*
2. *Clear button*
3. *Exit button*

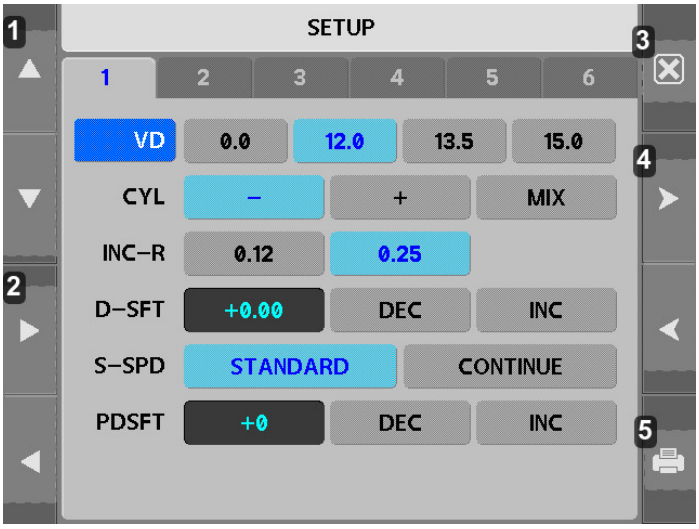
<Display for KER>:	<Display for CLBC>:	<Display for K(P)>:
		

4. [Setup] mode

Change all the settings about measurements, printouts etc.

Press [Setup] button in measurement mode. PAGE 1 of [Setup] mode will be displayed. Press [End] button in order to return to measurement mode.

a. Refractometry



1. *Change the item*
2. *Change the contents*
3. *[End] button*
4. *Change the page*
5. *[Print] button*

[How to change the page]

- Press one of nine tab buttons on the upper side of display.
- When you press measuring button, change the page 1,2,3,4,5,6 ⟷ 7,8,9.

[How to change the item]

- Pressing any button on display yields the selection of related item.

[How to change the contents]

- Press any unpressed button on display. The selected button will be displayed in pressed button and the content will be changed.

There are some contents to be changed in the other way. And such procedures will be instructed under the description of each item.

[How to enter the measurement mode]

- Press [End] button to quit the [Setup] mode and enter the measurement mode.

[Items]

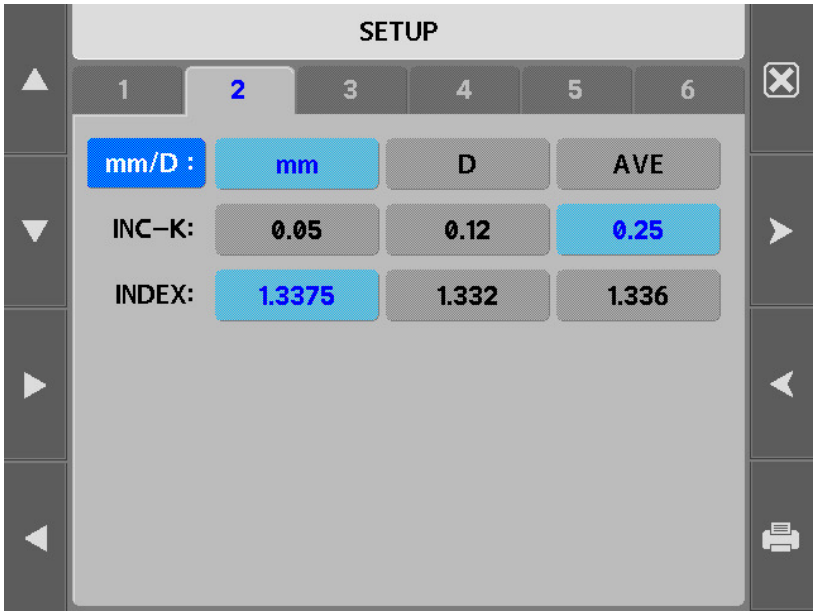
- [VD]: Vertex distance
- [CYL]: Cylinder form
- [INC-R]: Increment of sphere and cylinder
- [D-SFT]: Diopter shift of sphere

Press [INC] or [DEC] button to change the value of sphere by 0.12.

- [S-SPD]: Adjustment for fogging speed
- [PDSFT]: Value shift of pupil distance

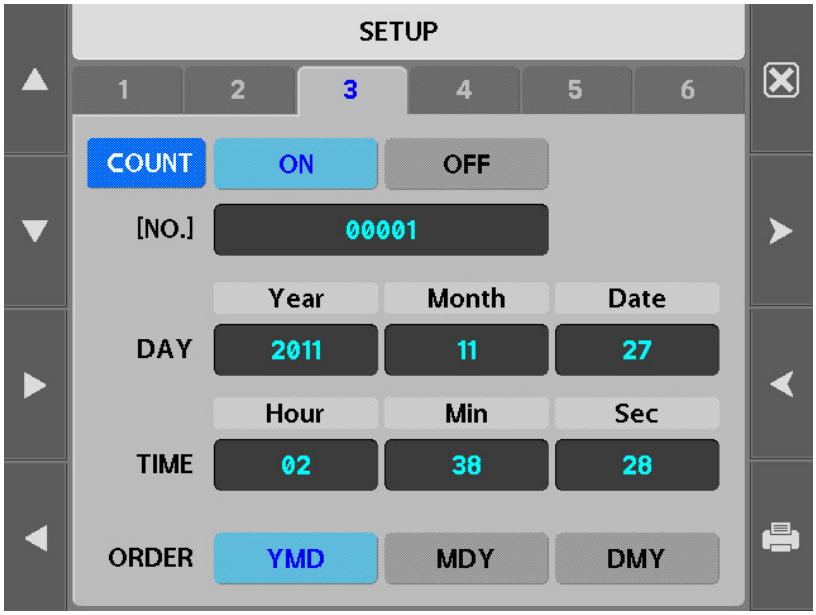
Press [INC] or [DEC] button to change the value of pupil distance.

b. Keratometry



- [mm/D]: Form of displaying result of keratometry
  - [mm R1]: Radius of curvature on minimum meridian
  - [R2]: Radius of curvature on maximum meridian
  - [AX]: Axis on maximum meridian
  - [D K1]: Refractive power on minimum meridian
  - [K2]: Refractive power on maximum meridian
  - [AX]: Axis on minimum meridian
  - [AVE AR]: Average radius of curvature
  - [CY]: Corneal astigmatism
  - [AX]: Axis of corneal astigmatism
- [INC-K]: Increment of corneal power and astigmatism
- [INDEX]: Corneal equivalent refractive index

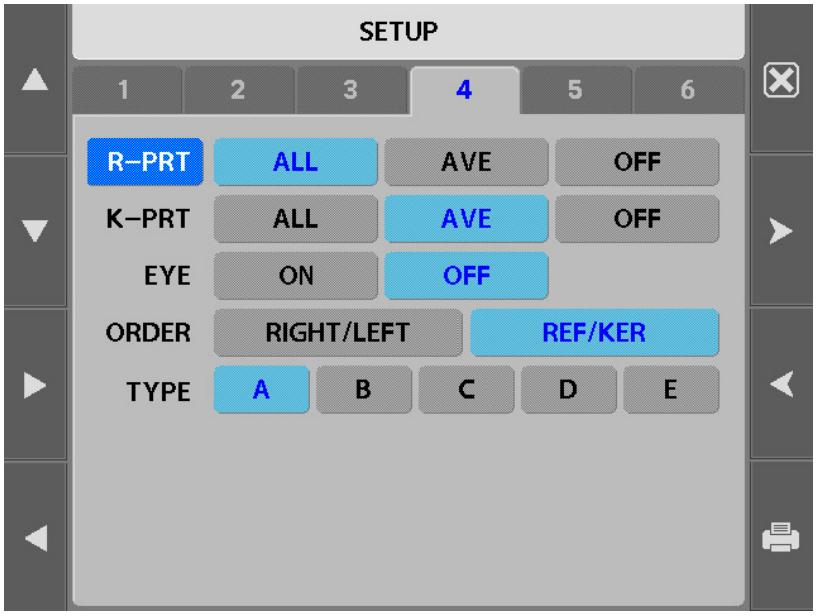
c. Patient number, time and date



[Items]

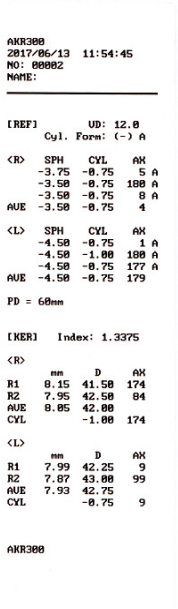
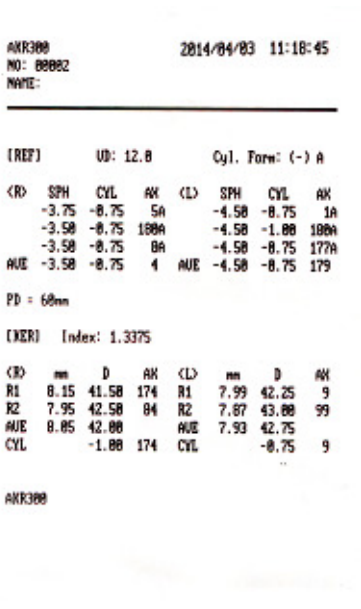
- [COUNT]: To select whether using the patient number or not
- [NO.]: Setting off the serial number
  - Pressing [DEC] or [INC] button renders the serial number to be decreased or increased by "1"
  - Pressing [Input] button enables you input number from dialog box.
- [DATE]: Time and date
  - Pressing [DEC] or [INC] button renders the related item to be decreased or increased by "1"
  - Year: 2001 ~ 2099
  - Month: 01 ~ 12
  - Day: 01 ~ 31
  - Hour: 00 ~ 23
  - Minutes: 00 ~ 59
- [ORDER]: Order of displaying the date

d. Print format

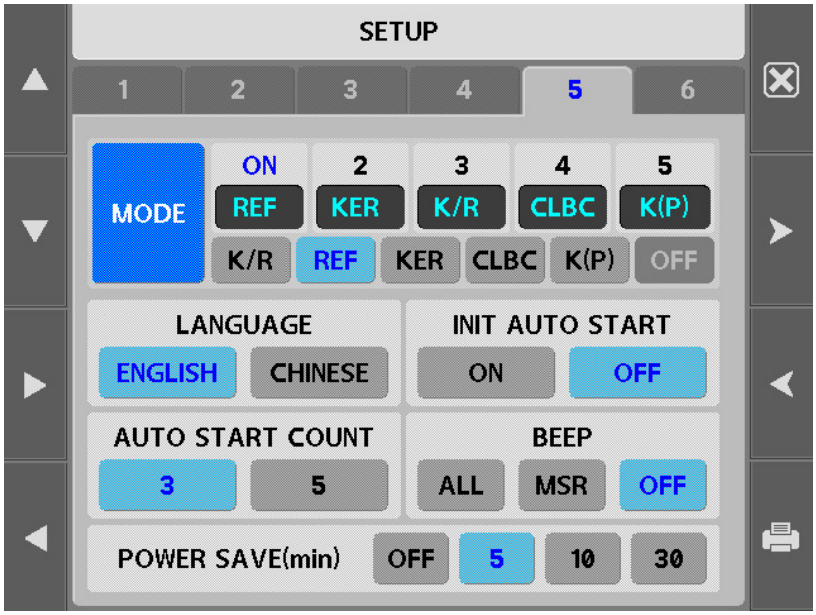


[Items]

- [R-PRT]: Result of refractometry to be printed out
  - [ALL]: Maximum of the 10 newest measurements and an average value for each eye
  - [AVE]: Average values only
  - [OFF]: Not printed
- [K-PRT]: Result of Keratometry to be printed out
  - [ALL]: Maximum of the 10 newest measurements and an average value for each eye
  - [AVE]: Average values only
  - [OFF]: Not printed
- [EYE]: A sketch of eyeball and refraction diagram to the results of refractometry are printed
- [ORDER]: Order of displaying the date
- [TYPE]: Print economy mode

[TYPE: A]	[TYPE: E]
	

e. Customize measuring modes, AutoStart, etc.

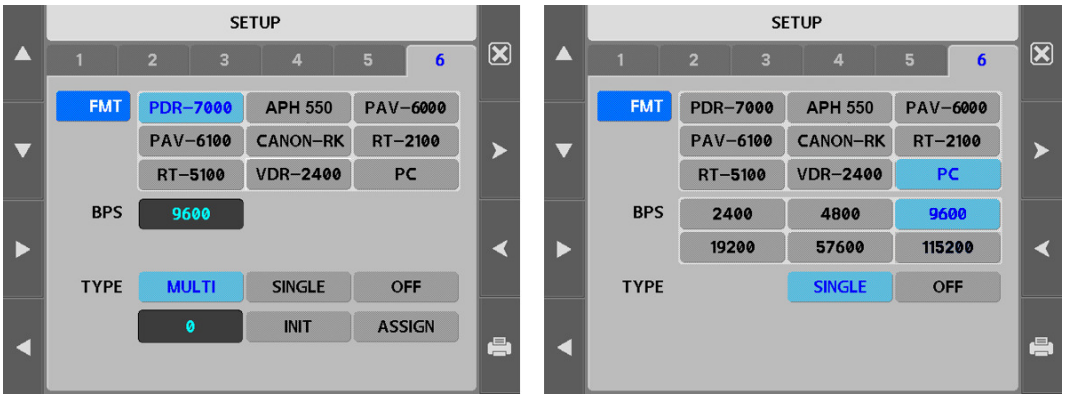


[Items]

- [MODE]: Assigns order of measurement modes [REF, KER, K/R, CLBC, K(P)] and delete unnecessary modes
  - 1: First mode that is displayed when power is turned ON. It cannot be set to OFF
  - 2~5: Second modes and after
  - Assign first measurement mode and after
  - If you want to delete unnecessary modes, delete from last (5^{th}) one

- [LANGUAGE]: English / Chinese
- [INIT AUTO START]
  - [ON]: Automatic start after power ON
  - [OFF]: Manual start after power ON
- [AUTO START COUNT]
  - 3: Continuous measurement starts automatically and will be performed 3 times
  - 5: Continuous measurement starts automatically and will be performed 5 times
- [BEEP]
  - [ALL]: Enable beep sound when touch screen, press keypad or measurement button, error occurs, [REF] motor moves
  - [MSR]: Enable beep sound when touch screen, press keypad or measurement button, error occurs
  - [OFF]: Disable beep sound
- [POWER SAVE TIME]
  - [OFF]: Disable power save function
  - 5: Enter power save function if there is on operation by operator about 5 minutes
  - 10: Enter power save function if there is on operation by operator about 10 minutes
  - 30: Enter power save function if there is on operation by operator about 30 minutes

f. Communication



[Items]

- [FMT]
  - RS232 data format
  - PDR-7000, APH550, PAV-6000, PAV-6100, CANON-RK, RT-2100, RT-5100, VDR-2400, PC
- [BPS]
  - RS-232 data transfer speed.(Only FMT: PC mode)
  - 2400, 4800, 9600, 19200, 57600, 115200
- [TYPE] Communication settings
  - [MULTI]: one PDR-7000 communicates with multiple AKR300. Separate device required. (Only PDR-7000)
  - [SINGLE]: General communication
  - [OFF]: Disable communication

g. Messages for internal printer

Enter a message to be printed out with the results of measurement using the internal printer in this window. You can enter a messages in 24 characters x 2 lines.

[Cursor position]

- The cursor blinking in the upper area represents the input position
- Press [Line] button to change the row of the blinking cursor
- Pressing [<-] or [->] button yields the right and left change of the position of the cursor

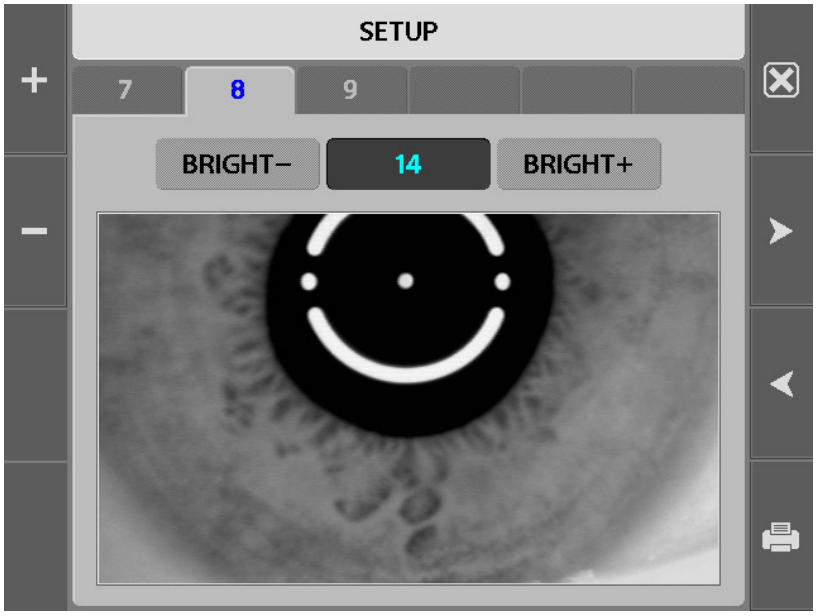
[Input of messages]

- Press any one of alphanumeric buttons to add character in the position of the blinking cursor

[Deletion of messages]

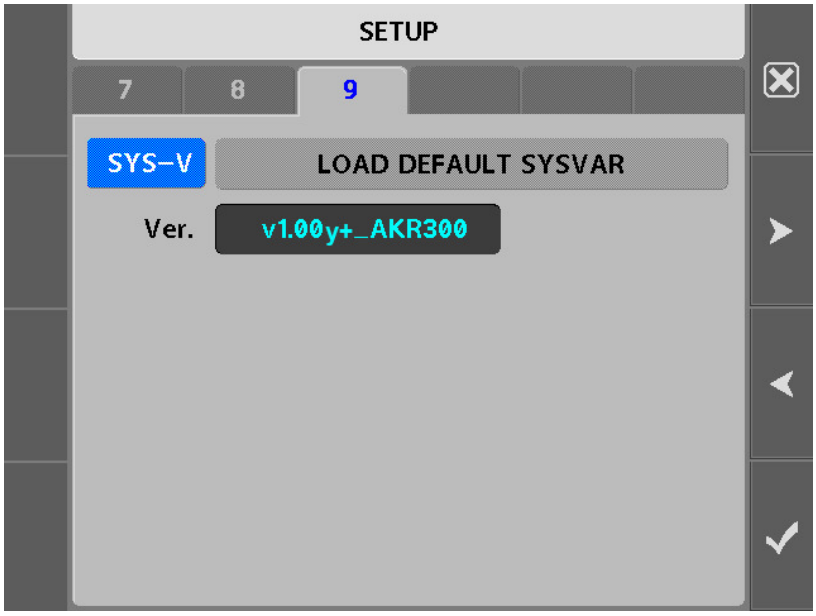
- If you press the [Del] button, the character of blinking cursor will be deleted
- If you press the ⌫ button, the character in front of the blinking cursor will be deleted

h. Adjust brightness



- Adjust the brightness of monitor
- Press [BRIGHT-] or [BRIGHT+] button to adjust the brightness of monitor (0~17)

i. Load default system variable



If you press the [LOAD DEFAULT SYSVAR] button, the system variable will be initialized.

VIII. Self inspection and maintenance

1. Before calling a service person

Warning messages will be displayed on the monitor if some problems occur. It might be operation errors or problems of the machine.

In this case, refer the following instructions.

If the function is still not salvaged or recovered, disconnect the power supply and consult the dealer.

a. Message when power ON

Message	Cause	Remedy
REF/KER CCD CHECK...	Internal error	Turn OFF the power switch and turn ON again after 10 seconds If the message appears again, consult the dealer
REF MOTOR ORIGIN... FAILED		
INVALID SETUP DATA - REF	Internal setup data for refractometry is invalid	Consult the dealer
INVALID SETUP DATA - KER	Internal setup data for keratometry is invalid	Consult the dealer

b. Message on measuring

Message	Cause	Remedy
ERROR	Alignment is improper	Measure after aligning the pupil and the alignment mark properly
	Eyelid or eyelashes are covering the pupil	Instruct the examinee to open his or her eyes wide, or lift up the eyelid lightly with your fingers and measure again
	When the pupil is smaller than the outer alignment mark	The minimum pupil diameter that can be measured is 2.0 mm. Although it is possible to measure in the bright place, don't expose examinee's eyes to the direct sunlight or too bright indoor lights to prevent the contraction of the pupil
	When the examinee has some illness like cataract	Observe the eye in REF mode. If cataract is not severe, measurement can be performed in the LiveREF mode
	Examinee has intraocular lens implanted.	Measure in the LiveREF mode
	When the mire image is odd shaped because of tears	Instruct the examinee to open and close his or her eyes several times and measure again
	When the mire image is not clear because the cornea is dry	Instruct the examinee to open and close his or her eyes several times and measure again
	Examinee has strong irregular astigmatism or corneal disease	Impossible to measure
+ OUT	Sum of SPH and CYL of examinee's eye is over +22D	Impossible to measure
	Radius of curvature is over 10.2 mm	
	Objective glass in the measurement window is dirty	Clean the glass

- OUT	Sum of SPH and CYL of examinee's eye is over –25D	Impossible to measure
	Radius of curvature is under 5.0 mm	
	Objective glass in the measurement window is dirty	Clean the glass
C OUT	Astigmatism is over 10D	Impossible to measure
	Corneal stigmatism is over 15D	
	Objective glass in the measurement window is dirty	Clean the glass

c. Message on printing

Message	Cause	Method to deal with
NO PRINT DATA	There is no measurement data	Print after measurement
PRINTER PAPER EMPTY	No printing paper	Load a roll of printing paper

2. Printing paper replacement

Replace the roll of printing paper as soon as possible if the red line appears in the paper.

1. Press the printer button to open the printer cover.
2. Remove the used paper.
3. Install a roll of new paper into the printer housing and close the printer cover.
4. At this time, the printer detects the change of paper, and cuts the paper approximately "2 cm" for initializing paper settings. (It takes about 3 seconds to complete.)

3. Chinrest paper replacement

1. Pull out the two pins on the chinrest.
2. Insert the pins into the holes on the chinrest paper. More than 50 sheets of paper can be attached.
3. Insert the pins straight into the holes on the chinrest.

4. Fuses replacement

1. Turn off the power.
2. Remove the power cord from the electrical inlet.
3. Insert flatblade screwdriver into notches in the fuseholder cover. Then turn the screwdriver countclockwise.
4. Replace the fuses and reset the fuseholder cover in its original positions.
5. Fuse rating: T3.15A 250V.

5. Cleaning

1. Basically, keep this instrument clean. Don't use volatile object, thinner or benzene, etc.
2. Polish each part with a dry cloth containing detergent solution.

6. When moving the instrument

1. Turn OFF the power switch.
2. Disconnect the power cable.
3. Close the stage holding dial in the clockwise direction.
4. Move this machine holding the lower part of the mains to keep horizontally.

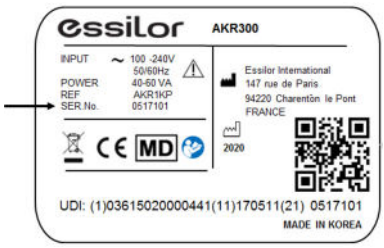
7. Service information

a. Repair

If problem cannot be solved even after taking the measures indicated in section 8.1, contact ESSILOR INSTRUMENTS representative or distributor for repair.

Please refer to the name plate and let us have the following information:

- Name of the instrument: AKR300
- Serial Number: 7-digit characters indicated on the name plate
- Phenomenon: In detail

	Serial number

b. Disposal of the instrument

Caution	This instrument incorporates a lithium battery, which may pollute the environment if the instrument is abandoned. Please ask a professional waste disposal company to handle disposal, or contact ESSILOR INSTRUMENTS representative or distributor before disposing of the instrument.

IX. Classifications and specifications

1. Classifications

- Classification of equipment: Class I
- Applied part of equipment: TYPE B Applied Part (Chinrest & Headrest)
- Protection against electric shock: Class I
- Protection against harmful ingress of water: Ordinary (IPX0)
- Method of sterilization: Not applicable
- Stability of use in an oxygen rich environment: Not suitable
- Mode of operation: Continuous operation

2. Specifications

a. Refractometry

Vertex Distance (VD)	0.0, 12.0, 13.5, 15.0 mm
Sphere Power (SPH)	-25.00 ~ +22.00 D (at the vertex distance of 12 mm) (Increments selectable between 0.12 and 0.25 D)
Cylinder Power (CYL)	0.00 ~ ±10.00 D (Increments selectable between 0.12 and 0.25 D)
Axis (AX)	1 ~ 180° (Increments: 1°)
Cylinder Form	-, +, MIX
Pupil Distance (PD)	10 ~ 88 mm
Minimum Pupil Diameter	Ø 2.0 mm

b. Keratometry

Radius of curvature	5.0 ~ 10.2 mm (Increments: 0.01 mm)
Corneal Power	33.00 ~ 67.50 D (when cornea equivalent refractive index is 1.3375) (Increments selectable from 0.05, 0.12, 0.25 D)
Corneal astigmatism	0.00 ~ -15.00 D (Increments selectable from 0.05, 0.12, 0.25 D)
Axis	1 ~ 180° (Increments: 1°)
Corneal Diameter	2.0 ~ 14.0 mm (Increments: 0.1 mm)
Memory of data	10 measured value for each right and left eye
Internal printer	Thermal line printer with auto-cutter function
Monitor	5.7-inch TFT LCD monitor

c. Environmental requirements

Operation	• Temperature: +10 to +40C • Humidity: 30 to 85% RH • Atmospheric pressure: 70 to 106 kPa
Storage and transportation	• Storage temperature: -10 to +55C • Transportation temperature: -40 to +70C • Humidity: 10 to 95% RH • Atmospheric pressure: 50 to 106 kPa

Power supply	AC100-240V, 50/60Hz
Power consumption	40 ~ 60 VA
Size	Approximately 260 (W) x 500 (D) x 450 (H) mm
Weight	Approximately 20kg

X. Components

1. Components

- AKR300 main unit: 1
- Operation manual: 1
- Power supply cable: 1
- Test model eye: 1
- Chinrest paper: about 100 sheets
- Printing paper: 2 rolls
- Dust cover: 1

2. Optional accessories

- Chinrest paper : 500 sheets
- Printing paper : 10 rolls

XI. QR Code

The complete user manual is available on a web space. To access it, please scan the QR code below using a dedicated application.

Le manuel utilisateur complet est disponible sur un espace web. Pour y accéder veuillez scanner le QR code ci-dessous à l'aide d'une application dédiée.

Die vollständige Bedienungsanleitung ist auf einem Speicherplatz verfügbar: Für den Zugriff darauf scannen Sie bitte untenstehenden QR-Code mittels einer dafür vorgesehenen Anwendung.

العربية الأدبية

إن الدليل الكامل للمستخدم متاح على استضافة ويب. لتتمكن من الوصول إليه، يُرجى مسح رمز الاستجابة السريعة أدناه باستخدام تطبيق مخصص لذلك.

O manual do usuário completo está disponível na área web do cliente. Para acessar, escaneie o código QR abaixo usando o aplicativo respectivo.

Пълното ръководство за потребителя е достъпно на уеб пространство. За достъп, моля, сканирайте QR кода по-долу с помощта на специално предназначено приложение.

可通过网络空间访问操作手册全文。如需访问该空间，请使用专用应用程序扫描 QR 码。

완전한 사용자 매뉴얼이 웹사이트에 있습니다. 전용 앱을 사용해 아래의 QR 코드를 스캔하면 접근할 수 있습니다.

Potpuni korisnički priručnik dostupan je na webu. Da biste mu pristupili, skenirajte QR-kod u nastavku namjenskom aplikacijom.

Den komplette brugermanual findes på et websted. Du får adgang til den ved at scanne QR-koden nedenfor ved hjælp af en dertil beregnet applikation.

El manual de uso completo está disponible en la web. Para acceder, escanee el código QR que se encuentra a continuación con la ayuda de una aplicación.

Täielik kasutusjuhend on saadaval veebis. Juurdepääsuks palun skannige allolevat QR-koodi, kasutades selleks spetsiaalset rakendust.

Täydellinen käyttöohje on käytettävissä verkossa. Avaa käyttöohje skannaamalla QR-koodi asianmukaisella sovelluksella.

Το πλήρες εγχειρίδιο χρήσης διατίθεται σε έναν ιστοχώρο. Για να μεταβείτε σε αυτόν, σαρώστε τον παρακάτω κωδικό QR μέσω μιας ειδικής εφαρμογής.

A teljes használati útmutató megtalálható a webes felületen. A hozzáféréshez, kérjük, olvassa le a lenti QR-kódot a megfelelő alkalmazás használatával.

Panduan pengguna yang lengkap tersedia di halaman web. Untuk mengaksesnya, silakan pindai kode QR berikut menggunakan aplikasi khusus.

Il manuale utente completo è disponibile su uno spazio Web. Per accedervi, scansionare il codice QR seguente mediante un'applicazione dedicata.

ユーザーマニュアル完全版はウェブサイト内で閲覧いただけます。そちらにアクセスするには、専用アプリケーションを使用して以下のQRコードをスキャンしてください。

Pilnā lietotāja instrukcija ir pieejama tīmeklī. Lai tai piekļūtu, lūdzu, noskenējiet tālāk redzamo QR kodu, izmantojot tam paredzētu lietojumprogrammu.

Išsamaus naudotojo vadovo ieškokite interneto svetainėje. Kad jį atvertumėte, specialia programėle nuskaitykite toliau pateiktą QR kodą.

Manual pengguna yang lengkap boleh didapati di ruangan web. Untuk akses, sila imbas kod QR di bawah menggunakan aplikasi yang berkenaan.

Den komplette brukerhåndboken er tilgjengelig på et webområde. For å få tilgang, må du skanne QR-koden nedenfor ved hjelp av en dedikert applikasjon.

De volledige gebruikershandleiding is beschikbaar op een website. U kunt de handleiding bereiken door de QR-code hiernaast te scannen met een geschikte applicatie.

Kompletna instrukcja użytkownika jest dostępna na stronie internetowej. Aby uzyskać do niej dostęp, zeskanuj poniższy kod QR przy użyciu dedykowanej aplikacji.

O manual do utilizador completo está disponível num espaço web. Para aceder, queira digitalizar o QR code seguinte com a ajuda de uma aplicação dedicada.

Celá uživatelská příručka je k dispozici na webu. Pro přístup k ní oskenujte níže uvedený QR kód pomocí specializované aplikace.

Versiunea integrală a manualului de utilizare este disponibilă pe un site web. Pentru a-l accesa, scanați codul QR de mai jos cu ajutorul unei aplicații dedicate.

Полное руководство пользователя доступно в Интернете. Для доступа просканируйте приведенный ниже QR-код с помощью специального приложения.

Potpuno korisničko uputstvo je dostupno na vebu. Da biste mu pristupili, skenirajte QR kôd u nastavku pomoću namenske aplikacije.

Celý používateľský manuál je dostupný na internete. Aby ste sa k nemu dostali, naskenujte QR kód nižšie pomocou na to určenej aplikácie.

Celoten uporabniški priročnik je na voljo na spletnem mestu. Za dostop do njega skenirajte spodnjo kodo QR z uporabo namenske aplikacije.

Den fullständiga handboken finns på en plats på Internet. Skanna QR-koden nedan med en lämplig app för att få åtkomst till den.

มีคู่มือผู้ใช้ฉบับสมบูรณ์อยู่ในพื้นที่เว็บ เพื่อเข้าถึงข้อมูล กรุณาสแกนรหัส QR ด้านล่างนี้โดยใช้แอปพลิเคชั่นเฉพาะงาน

Kullanma kılavuzunun tamamı internette bulunmaktadır. Kılavuza erişmek için, QR kodunu uygun bir uygulama kullanarak taratınız.

Повне керівництво користувача доступно в Інтернеті. Для доступу проскануйте наведений нижче QR-код за допомогою спеціального додатку.

Câm nang hương dân s dung hoan chinh hiên có trên không gian web. Đ truy câp, vui long quet m, QR bên dươi bằng ưng dung chuyên dung.

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