

10.2. Printing Paper Replacement

1. Pull the cover on the side to open the printer cover.



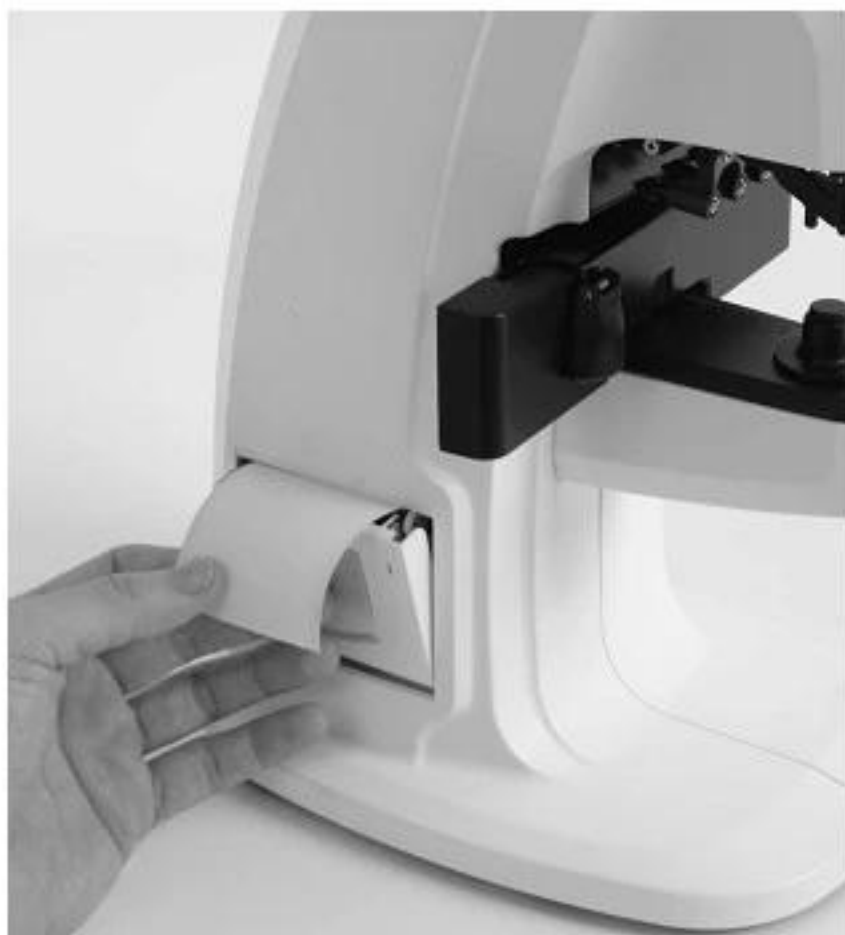
2. Cut off the paper clamped in the paper, and take out the paper roll.



3. Place a new paper roll in the printer case.



4. Fixate the paper in the printer. Adjust the length so the paper is mounted between the paper outlets.



5. Place the end of the paper through the hole on the cover and close the cover.



NOTE

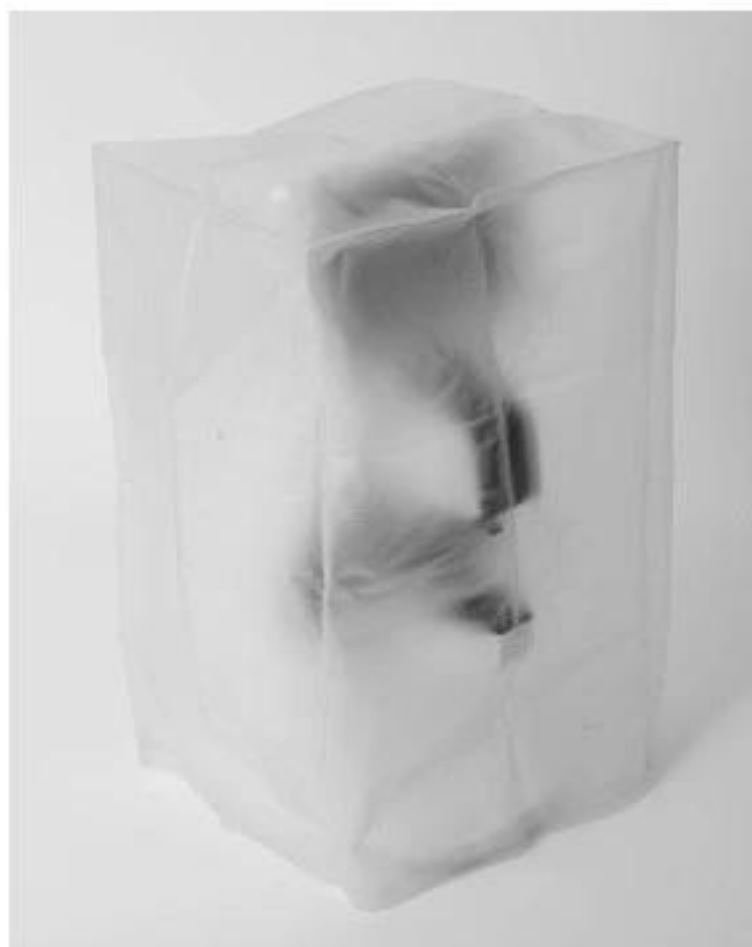
Recommend using the printing paper provided by US Ophthalmic LLC.
If you use the similar products, it may cause malfunction and broken.

※ Replacement Part Name, Code and Spec.

→ Printer Paper / 9020Z000001-A/ Width 57, Diameter 50, 33M

10.3. Storage

While not use, cover up the device with the dust cover as shown in [Picture: How to store while not use] for storage.



[How to store while not use]

If you do not plan to use the device for more than a week, place the dust cap on lens cap as shown in [Picture: For long-term storage].



[For long-term storage]

10.4. Disposal



NOTE

Please obey the law relating to the equipment and its part to discard the equipment or its part(s). For example, discarding a lithium battery is a threat to the environment.

When discarding packaged part(s), disassemble the part(s) and obey the law and recycling regulations.

10.5. Various Messages

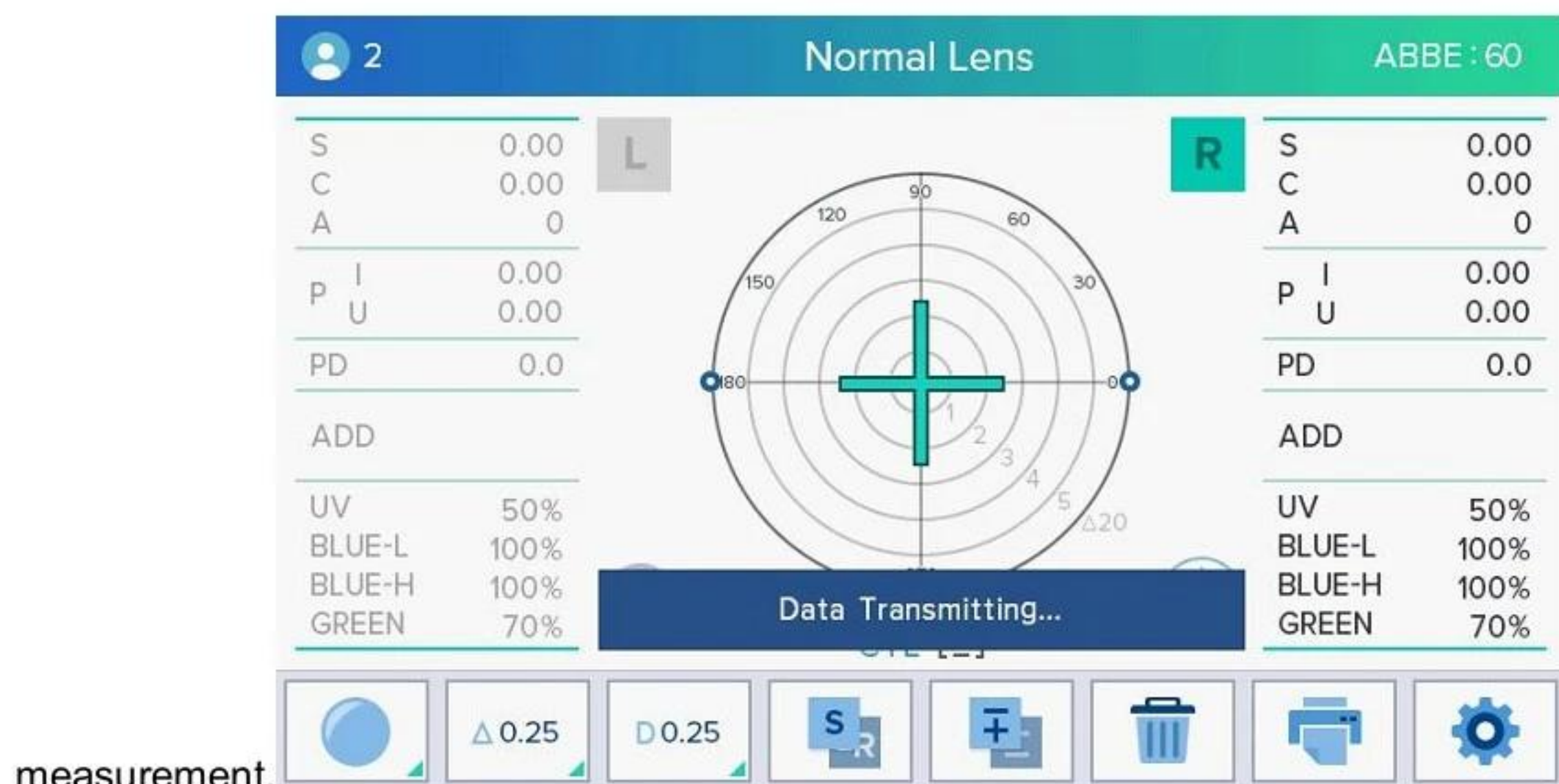
Message box shows information when you are measuring or this instrument is out of order.



[Measuring Error screen]

Measuring Error:

- Is displayed when there is no signal.
- Is displayed when there is out of range signal.
- Is appeared when signal is bad in contact lens



measurement.

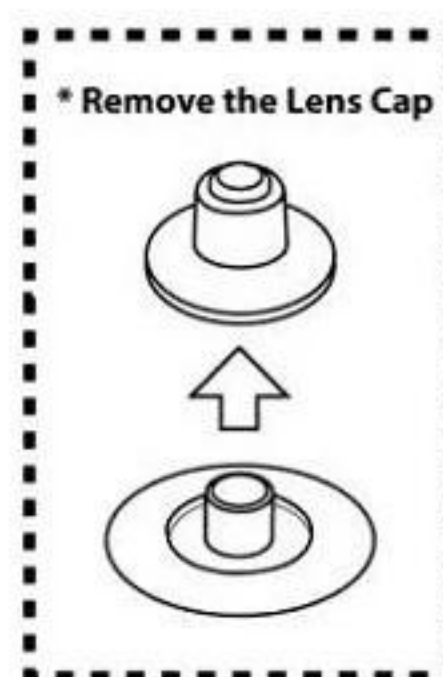
[Data Transmitting screen]

Data Transmitting...:

- Shows a state in which the data transmission.
(If you set the setup mode COMMUNICATION->RS 232C->LMTORK)

10.6. How to Clean Pinhole

If the S, C and A values are not 0 when the equipment starts up, clean the pinhole. Remove the lens cap and wipe using a clean lens towel as shown in [Picture: How to clean the pinhole]. Do not use liquid such as alcohol or acetone.



[How to clean the pinhole]

CAUTION

Do not use liquid such as alcohol or acetone as it can dissolve the adhesive on the pinhole.

If the S, C and A values are not 0 after cleaning the pinhole, please inquire with an authorized dealer or US Ophthalmic LLC Service Department.

Major Specification

- Measurement Range**

Spherical Power	0D ~ ±25D (0.25/0.12/0.06/0.01)
Cylinder Power	0D ~ ±10.00D (0.25/0.12/0.06/0.01)
Cylinder Axis	0° ~ 180° (1° step)
Progressive Power	0 ~ 10D (0.25/0.12/0.06/0.01)
Prism	0 ~ 20Δ (0.25/0.12/0.06/0.01)

- Measurement Mode**

Cylinder	±, +, -
Prism	Rectangular / Pole / Displacement
LED wave	545 nm (Green)
Contact Lens	Hard / Soft Contact Lens
Abbe value	Manual Revision
Wave	e-Line, d-Line
Screen	7" Color LCD Panel (800*480)
Interface	RS-232
Printer	Printer
Communication Speed (BPS)	9600, 57600, 115200 bps
Product Size	187(W) x 234(D) x 413(H) mm 7.36 in. x 9.21 in. x 16.26 in.
Product Weight	4.3Kg
Power Supply	Input: 100-240V~50-60Hz 1A MAX Output: DC 12V 3A MAX

EMC Information

Manufacturer announcement – electromagnetic waves trouble

- **Electromagnetic waves trouble**

LM-7800 should be used in the below mentioned electromagnetic wave environment. LM-7800 purchaser or user needs to confirm whether LM-7800 is used in this type of environment.

Trouble test	Question of appropriateness
RF emissions CISPR 11	Group 1
RF emissions CISPR 11	Class B
Harmonic emissions IEC 61000-3-2	Class A
Voltage fluctuations/flicker IEC 61000-3-3	Complies

Manufacturer announcement – electromagnetic waves tolerance

- **Electromagnetic waves tolerance**

LM-7800 is to be used in the below designated electromagnetic wave environment. LM-7800 customer and user need to guarantee that the LM-7800 will be used in this type of environment.

Tolerance test	IEC 60601 test level	Appropriateness level
Electrostatic discharge(ESD) IEC 61000 - 4 - 2	contact ± 8 kV in the air ± 15 kV	contact ± 8 kV in the air ± 15 kV
Electric rapid transients/burst IEC 61000 - 4 - 4	power supplying line ± 2 kV input/output line ± 1 kV	power supplying line ± 2 kV input/output line ± 1 kV
Surge IEC 61000 - 4 - 5	between lines ± 1 kV between line and grounding ± 2 kV	differential mode ± 1 kV common mode ± 2 kV

Voltage dip, instantaneous interruption, voltage fluctuation at the power input line IEC 61000 - 4 - 11	For 0.5 cycle < 5 %UT(UT's > 95 % decrease) For 5 cycle 40 %UT(UT's 60 % decrease) For 25 cycle 70 %UT(UT's 30 % decrease) For 5 seconds < 5 % UT(UT's > 95 % decrease)	For 0.5 cycle < 5 %UT(UT's > 95 % decrease) For 5 cycle, 40 % UT(UT's 60 % decrease) For 25 cycle, 70 %UT(UT's 30 % decrease) For 5 seconds, < 5 %UT(UT's > 95 % decrease)
Power frequency magnetic field (50/60 Hz) IEC 61000 - 4 - 8	30 A/m	30 A/m
Other UT is the a.c. power voltage for before approving the test level.		

- **Electromagnetic waves tolerance**

LM-7800 is to be used in the below mentioned electromagnetic wave environment. LM-7800 purchaser or user needs to confirm whether LM-7800 is sued at this environment.

Tolerance test	IEC 60601 test conditions	Appropriateness level
Conductivity RF electromagnetic field IEC 61000 - 4 - 6	3 Vrms 150 kHz~80 MHz	3 Vrms
Radioactivity RF electromagnetic field tolerance IEC 61000 - 4 - 3	10 V/m 80 MHz~2.7 GHz scope	10 V/m

Service Information

Service Instruction: If a problem occurs on the equipment, follow the below instruction.

- First, follow the instruction in Chapter 10 Self-diagnosis and maintenance/repair according to a type of the problem.
- If the problem continues, contact the place of purchase.
- Before contacting the place of purchase, it is advisable to prepare information of the equipment such as model number and serial number. Thus, write down the information on the table below immediately after making a purchase so you can always have access to the information. Serial number can be found on the back of the equipment. Each product comes with a serial number of its own. Please keep this instruction booklet as a record of purchase. Please keep the receipt as a proof of purchase as well. **Date**

of Purchase: _____

Name of Seller: _____

Seller Address: _____

Seller Phone: _____

Model Number: _____

Serial Number: _____

- If you have trouble contacting the place of purchase, contact the service department at US Ophthalmic LLC directly using the addresses and phone numbers below.

■ How to Contact US Ophthalmic LLC

9990 NW 14th ST STE 105, DORAL FL 33172

Tel: +1-888-881-1122

e-mail: info@usophthalmic.com

usophthalmic.com

Model distinction

Function	Description	LM-7800
SPH	-25D ~ +25D (0.25/0.12/0.06/0.01)	○
PRISM	0 ~ 20Δ (0.25/0.12/0.06/0.01)	○
CYL	0D~±10.00D (0.25/0.12/0.06/0.01)	○
AXIS	0° ~ 180° (1° 步长)	○
ADD	0 ~ 10D (0.25/0.12/0.06/0.01)	○
Progressive lenses	Progressive lens measurement	○
Contact lens	Contact lens measurement	○
PD	PD measurement	○
UV	UV measurement	○
Blue	Blue measurement	○
Printer	Print measurement results	○
QR Code	Scan QR code to display measurement results	○
RS-232C	Communication with other company or HUVITZ equipment	○