

Dermatoscope

IDS-1100



INSTRUCTION
MANUAL



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Introduction

The ILLUCO Dermatoscope IDS-1100 is a hand-held LED dermatoscope with polarized light illumination. The IDS-1100 is designed exclusively for external examination of skin.

IDS-1100 is intended for use by professional healthcare personal only.



United States Federal Law restricts this device to sale by or on the order of a physician or practitioner only.

IDS-1100 is powered medical examination lights which can help users for more effective and comfortable work in skin examination.

Precise, clear, durable and easy to use.

The IDS-1100 Dermatoscope will enhance your diagnostic accuracy of various skin lesions.

Intended Applications

The IDS-1100 has numerous applications;

- 1 The typical application of IDS-1100 is early detection of melanoma
- 2 Diagnosis of skin tumors
- 3 Scabies and pubic louse
- 4 Warts
- 5 Fungal infections
- 6 Hair and scalp diseases

Safety Precautions



Before using the IDS-1100 for the first time, read the manual completely. The manufacturer and distributors are not liable for mechanical troubles, property damage or personal injury caused by user(s) unfamiliarity with instructions of the manual.

The IDS-1100 is designed for external examination only.

- ▲ Do not look directly at LED light.
- ▲ Patients must close their eyes during facial examinations.
- ▲ Handle softly and do not put too much pressure when adjusting focus dial.
- ▲ The IDS-1100 is a magnetic embedded device. Do not use the IDS-1100 near magnetic susceptible devices.
- ▲ Vapors can form on the lens if you suddenly heat in a cold room. In this case, do not use the device until vapors are naturally eliminated.
- ▲ It has a Lithium-ion battery embedded. Handle it carefully to prevent damage from an external shock. Also do not use and store it in abnormally hot or cold climates.
- ▲ The device may malfunction due to electromagnetic waves caused by portable personal telephones, transceivers, radio-controlled toys and etc. Be sure to avoid having objects such as, which affect the device, brought near the device.
- ▲ The device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to other devices, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 1. Reorient or relocate the device
 2. Increase the separation between devices

Environmental Safety Considerations



Wet and moisture environments:
(Do not operate the IDS-1100
With wet hands)



Harsh shock and vibration environments



High temperature variations:
(Operating temperature / Humidity:
10°C ~ 35°C / 30% ~ 75 %)



Dry and dusty environments:
(Dust particles can enter into the device.
Clean the device frequently)



Near heating devices:
(Do not place the IDS-1100
Near a heating device)



Do not open or dismantle the IDS-1100.
The manufacturer will not be responsible
for any errors or damages whatever caused
by opening or dismantling the device.

Symbol Key



Do not look directly at LED light



Charging Status



Non & Cross polarization mode button



Brightness control button



Power on/off button



Focus adjustment dial forwards



Focus adjustment dial backwards



Caution

Specifications

Dermatoscope IDS-1100	
Polarization	Cross & Parallel
Aperture	25mm
Coating	BBAR (Broad-Band Anti-Reflection)
Magnification	10 x
Brightness Control	3 levels
Smartphone adapter	Available
LED	32 EA
Functions	Polarization / Non-polarization Brightness control
Contact & Non-Contact examination	Yes (a detachable protect glass)
Battery	Rechargeable lithium ion 1150mAh/3.7v
Charging time	3 Hours
Continuous duty time	2 Hours (Sleep mode: after a non-operational state for 5mins)
Charging terminal	USB micro 5 pin
Net dimensions / Weight	138 x 65 x 33 (mm) / 190g
Package dimensions / Weight	190 x 190 x 85 (mm) / 520g

Parts Description



- | | |
|-----------------------------------|--|
| 1. PG: Protect Glass (detachable) | 10. MR: Magnetic Ring |
| 2. Scale: Measuring scale in mm | 11. CSI: Charging Status indicator |
| 3. PMB: Polarization Mode Button | 12. CP: Charging Port |
| 4. PB: Power On/Off Button | 13. BC: Battery Cover |
| 5. BCB: Brightness Control Button | 14. CC: USB Charging Cable |
| 6. FD: Focus Dial | 15. MUP: Micro 5 pin USB plug |
| 7. BW: FD back wards | 16. UP: USB plug |
| 8. FW: FD forwards | 17. Smartphone Connection Kit (Optional) |
| 9. ML: Magnifying lens (10x) | 18. Battery |

Direction for use

- 1 Hold the IDS-1100 with a magnifying lens (ML) side up
- 2 Push the power button (PB) to power on the LEDs
- 3 Place the protect glass (PG) on the lesion to be examined.
You can also open the protect glass (PG) for non-contact examination and avoid contacting the affected part.
- 4 Adjust your eye close to the magnifying lens (ML)
- 5 Turn the focus dial (FD) forwards or backwards to obtain the desired image focus.
- 6 In order to change the polarization mode, push the polarization mode button (PMB)
- 7 To brighten up or down the LED lamps, push the brightness control button (BCB)
- 8 Examine the skin lesions.
- 9 When necessary, measure the size of the lesion using the scale on the lens.
- 10 When the examination has been finished, push the power button to power off the LEDs.
- 11 Clean the magnifying lens (ML) and the protect glass (PG). The exterior of the IDS-1100 may be cleaned or sterilized with isopropyl alcohol (70% vol) and/or a lens cleaning cloth.
- 12 Store the device in a safe place.

This device may only be used together with accessories supplied by ILLUCO Co., Ltd.

-  If the customer makes use of other accessories, use them only if their safe usability under technical aspect has been proved and confirmed by ILLUCO Co., Ltd.

Smartphone Adapter

- 1 fit the suitable smartphone adapter on your smartphone and put your IDS-1100 on it.
- 2 Run a camera application on your smartphone
- 3 follow the instruction 5, 6, 7 (direction for use) and then check the lesion direct from your smartphone.
- 4 You can enlarge the lesion for most detailed view and capture its images.

Non-contact examination

You can remove the protect glass for non-contact examination.

The magnetically coupled protect glass (PG) is easy to take off with your finger nail.

- ⚠ Do not look directly at LED light, Patients must close their eyes during facial examinations.
- ⚠ Before and after examination, clean the protect glass with the lens cloth.

Battery and chargingNote

IDS-1100 uses a lithium ion battery designed solely for ILLUCO IDS-1100. It is to be purchased from ILLUCO or form an authorized ILLUCO dealer. Using a battery other than the one designed for the IDS-1100 can cause damage to the unit.

A. Charging indicator

There are three indicators that showing the IDS-1100's charging status.

Orange: The battery is almost empty and charging is required.

Red: The unit is now in charging status.

Blackout (No signal): Charging completed.

B. Charging method

-Prepare the USB charging cable supplied with the IDS-1100

-Insert the micro 5 pin USB plug into the charging port of the IDS-1100 and the USB plug into any USB port on such as a smartphone charger or a PC.

-The charging time is ca. 3 hours. When the unit is fully charged, the continuous duty time is ca. 2 hours.

-Do not use the IDS-1100 during charging.

Note

After ca. 6months use, the battery capacity will be decreased to the point where it may be more convenient to replace the battery.

Sleep Mode

In order to save on electrical consumption, the IDS-1100 is designed to be powered off automatically when it is in a non-operational state for 5 minutes.

Maintenance

Note

The lenses and polarization filters installed on the IDS-1100 must be treated as high quality optical parts. Use only a standard lens cleaning equipment for cleaning and protect them from harmful chemicals.

-Exterior cleaning

The exterior of the IDS-1100 may be cleaned or sterilized with isopropyl alcohol (70% vol.)

Do not use any kind of disinfectants, acetone or chemicals other than isopropyl alcohol.

-Lens cleaning

Cleaning your IDS-1100 lenses should be a regular (although not too regular) part of any IDS-1100 owner's maintenance. The lenses on the IDS-1100 are hard multicoated. Wipe the lenses with using alcohol or water. Use the lens cleaning cloth exclusively made for the IDS-1100 or other normal lens cleaning clothes.

Lens cleaning fluid:

You may find an alcohol based lens cleaning fluid which is well worth having. It will help you to lift off fingerprints and other smudges without leaving streaks on your lens.

Keep in mind that you don't need too much of them at a time. Usually just a drop or two wiped in a gentle circular motion with a cleaning tissue will remove marks on a lens or a filter.

Always apply the fluid to a cloth or tissue rather than the lens itself. Otherwise it can easily leave a mark on.

Good approach is to start with breath and then use fluids for difficult marks to remove.

-Protect glass cleaning (disinfection)

The scale on the protect glass is chrome plated. So you can clean it with alcohol with no concern about being wiped off. Dermatoscope is classified as non-critical instrument. Therefore, low level disinfection methods are requested. Use 70% ethanol or isopropanol for disinfection. Principally non-contact examination is requested when

scoping damaged or infected skin. Even so, regular exhaustive disinfection is necessary and E.O.(Ethylene oxide) Gas sterilization method is recommended for deep disinfection.

-Inside cleaning

Note

When cleaning internal part, never touch the LED & polarization filter.

Clean the magnifying lens in the middle if only it has been contaminated. Use a lens cleaning cloth or a blower to remove the contaminations. Polarization filters are coated to protect itself against foreign particles and dusts as the filter itself easily attracts them like a magnetic field. If you clean polarization filter with alcohol or any fluids or wipe it even only with cleaning cloth or tissue, it will peel off the coat. So do not wipe it. If necessary, blow off the foreign particles and dusts with a blower or air spray.

-Storage

During work, always close the protect glass and keep the device with a protect glass side up.

When storing, put IDS-1100 in the pouch and store it in a safe place.

If you store IDS-1100 for a long time and the climate should be very humid, use silica gel. In that case, do not use leather pouch as leather generally absorbs moisture in the air and causes mold. Do not store IDS-1100 in a room with a temperature higher than 45 °C

Troubleshooting guide

Note

The IDS-1100 is reliable and designed for trouble-free operation. Never attempt to open or dismantle the device for any reason other than battery replacement. The manufacturer and distributors are not liable for mechanical troubles, property damage or personal injury caused by the use(s) unfamiliarity with the instructions of the manual.

1 No power supply

-Recharging the battery and power on again.

If the problem persists, replace the battery with a new one.

When the both tries ended up with failure, contact the ILLUCO A/S center or your local distributor and report the

problem.

2 Charging not working

-Change the charging cable.

If the problem persists, replace the battery with a new one.

When the both tries ended up with failure, contact the ILLUCO A/S center or your local distributor and report the problem.

3 Single LED does not light up

-The LEDs embedded on IDS-1100 are designed to last over 100,000 hours. If any of the LEDs fails, there can be cracks on soldering. Such case, contact the ILLUCO A/S center or your local distributor and report the problem.

4 Mechanical malfunction

If there are issues with functional buttons are/or focusing wheel, please contact the ILLUCO A/S center or your local distributor. IDS-1100 is designed to prevent disassembling by an unskilled person. If you attempt to disassemble it, there is a high probability of breakage on connections and joints.

Warranty

ILLUCO Corporation Ltd. Hereby warrants that new IDS-Series purchased directly from ILLUCO Corporation Ltd., headquartered in Gunpo, South Korea, will be free from factory defects in material and workmanship for the period of time stated below, subject to certain limitations.

OUR WARRANTY POLICY

This warranty is not transferable and covers replacement parts only. This warranty does not cover any consequential damages or business loss.

THE PERIOD OF WARRANTY

The warranty on your IDS-Series is seven (7) years from the date of purchase by the original owner against defects in material and workmanship.

GENERAL EXCLUSIONS

General exclusions from this warranty shall include any failures caused by:

- a. Installation of parts, attachments or accessories that are not original to the unit or genuine IDS-Series parts. (i.e. aftermarket attachments such as battery, LEDs etc.)
- b. Abnormal strain, neglect, or abuse.
- c. Lack of proper maintenance.
- d. Accident or collision damage.
- e. Changing or altering factory settings without consulting with an authorized technician.
- f. Damage or malfunctions resulting from natural calamity, freezing, theft, accident, vandalism, abuse due to misapplication and/or improper site conditions.

SPECIFIC EXCLUSIONS

Items not covered under warranty include:

- a. Parts replaced due to normal wear or routine maintenance including, but not limited to battery, LEDs, protect glass, etc.
- b. Consumable or wearing items requiring replacement as part of normal operation including, but not limited to battery and protect glass.
- c. Any transportation or travel costs.
- d. Reimbursement for rental units while repairing warranty items.

CUSTOMER'S RESPONSIBILITY

Under this warranty, the customer's responsibility shall be to:

- a. Operate and maintain the device as specified in the instructions manual.
- b. Give notice to authorized IDS-Series dealer or ILLUCO Corporation Ltd. of apparent defects within seven (7) days after discovery.
- c. Provide proof of purchase, purchase date, and serial number of the warranty item(s).
- d. Make the unit available for inspection and repairs at dealer's place or service center. If shipped, transit costs should be prepaid.

For warranty service request, please e-mail info@illuco.co.kr or call +82 70 4922 7441.

ILLUCO Corporation Ltd. recommends that you read the User Manual, and in particular the troubleshooting section.

Appendix

Guidance and manufacturer’s declaration – electromagnetic emissions		
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such environment.		
Emission test	Compliance	Electromagnetic environment - Guidelines
RF emissions CISPR11	Group 1	The device uses RF energy only for its internal function. Therefore, RF-emission is very low and it is unlikely that any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The device is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic Emissions IEC 61000-3-2	not applicable	not applicable
Voltage Fluctuations/ Flicker Emissions IEC 61000-3-3	not applicable	not applicable

Guidance and manufacturer declaration – Electromagnetic immunity			
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - Guideline
Electrostatic discharge (ESD) Acc. To IEC 61000-4-2	±6kV contact discharge ±8kV air discharge	±6kV contact discharge ±8kV air discharge	Floors should be wood, concrete or covered with ceramic tiles. If floors are covered with synthetic material, the relative humidity should be at least 30%
Electrical fast transient/burst IEC 61000-4-4	not applicable	not applicable	not applicable
Surge IEC 61000-4-5	not applicable	not applicable	not applicable
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	not applicable	not applicable	not applicable
Power frequency (50/60 Hz) Magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Comments: UT is the a.c. supply voltage prior to application of the test level.			

Guidance and manufacturer's declaration – electromagnetic immunity			
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment Guidelines
Conducted RF	not applicable	not applicable	not applicable

IEC 61000-4-6			
Radiated HF IEC 61000-4-3	3 V/m 80MHz to 2,5GHz	3 V/m	Recommended separation distance: $d=3,5/3* \text{SQRT} (P/W)$ $d=3,5/3* \text{SQRT} (P/W)$ 80 MHz to 800 MHz $d=7/3* \text{SQRT} (P/W)$ 800 MHz to 2,5 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey^a, should be less than the compliance level in each frequency range.^b Interference may occur in the vicinity of equipment marked with the following symbol: 
Note 1: At 80Hz and 800MHz, the higher frequency range applies. Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people. ^a Field strengths from fixed transmitters, such as base stations for radio (cellular / cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the device is used exceeds the applicable RF compliance level above, the device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the device. ^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V / m.			

 **Manufacturer:**



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