

WHITENING SYSTEM USER'S MANUAL



- This unit is restricted to be installed by dentists, and operated by licensed trained medical or lab professionals only.
- All instructions in this USER'S MANUAL must be thoroughly read before installation or operation.

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# **1. PRESENTATION**

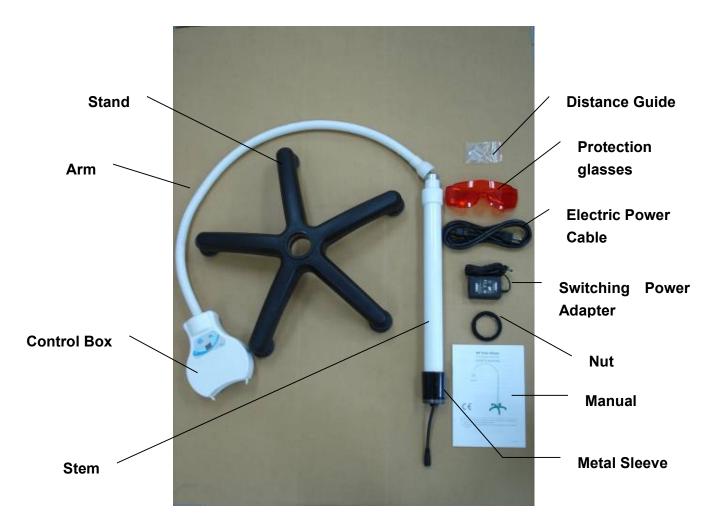
This unit is designed for in-office tooth bleaching. This unit must be operated by licensed dental professionals only.

# 2. ADVANTAGES

- 1 **LED light source**: emits blue light, powerful but not building much heat. Quiet operation without noisy fan.
- 2 Arc Shape: provides almost full mouth whitening scope.
- 3 Multiple Timing Selection: 5, 10, 15, 20, and 25 minutes.
- 4 Swivel Arm with Finger-tip Control: for smooth operation and position setting.
- 5 Memory Retainable: it auto-memorizes setting of last operation for next use.
- 6 Simple Design: small and light.
- 7 Easy for installation, easy for operation, and easy for storage.

# 3. CONTENTS and INSTALLATION

#### **CONTENTS:**



#### **INSTALLATION:**

FIGURE	ASSEMBLING PROCEDURE
	1. Place the arm into the stem vertically.
	2. Hold the arm steady and turn the stem anti-clockwise to screw tight as figure.
	3. Place the rubber protector as figure.

FIGURE		ASSEMBLING PROCEDURE
	4.	Insert metal sleeve into the hole of stand, as figure
	5.	Tighten the nut on the thread of metal sleeve.
	6.	Complete installing the stem on the stand as figure.

FIGURE		ASSEMBLING PROCEDURE
	7.	Turn the screw to adjust length of the stem: Clockwise: turn tight. Anti-Clockwise: turn loose.
	8.	Place properly the Distance Guide as figure.
	9.	Complete installation.

## 4. OPERATION

- 1 Connect the power cable with the power adapter, and plug the power adapter with correct electric power (AC 100V~240V). Then it indicates "05" on the display.
- 2» Press "TIME" to select timing: 5, 10, 15, 20, and 25 minutes.
- 3» Press "START" to begin operation (the dot will be flashing while operating).
- 4» Press "PAUSE" to pause the operation (the dot will light on steadily while pausing), and press again to continue.
- 5» Press "RESET" to interrupt the operation, or wait until the time is up.
- 6 Disconnect power cable and store the unit safely after use.
- 7 Adjust stem to move to the desired height. Gooseneck is designed for adjusting light head (control box) direction, right or left.
- 8 Support the unit well and move it with care very slowly to prevent damage of the unit or injury of personnel if the platform of move or transportation is slanted by 10° inclination (or over). The equipment must be kept at specified positions shown as complete installation.

# 5. MAINTENANCE

- 1» Keep the L.E.D. (lighting area) and the stand far away from any liquid, including water.
- 2» Keep the unit clean. Wipe the L.E.D. (lighting area) and the stand only with soft and dry cloth if it gets dirty.
- 3 Do not over tighten the control box with force to prevent damage of inner structure.
- 4 Fix the electric cable while moving or transporting the unit.
- 5 Follow the national requirement to dispose the unit.

# 6. TROUBLE SHOOTING

Users could simply handle the following status. For any other unlisted fault, please contact the dealer immediately for further check. Any self-repairing might raise worse condition and severe damage or injury.

FAULT	POSSIBLE CAUSE	SOLUTION
"H5" shown on the	Power adapter is not	Use correct power adapter with
display.	correct.	output DC 5V.
LCD has no display.	<ol> <li>Power adapter is not properly connected.</li> <li>Fuse overloaded.</li> </ol>	<ol> <li>Make sure the electric power socket, power adapter, and the power cable are properly connected.</li> <li>Remove the electric power. Re-connect with the electric power after 2 minutes.</li> </ol>

# 7. SPECIFICATION and ACCESSORIES

#### 1) SPECIFICATION

LIGHT SOURCE	:	Blue LED
SPECTRUM	:	430 ~ 490nm
SWITCHING POW	ER A	DAPTER
	INP	UT : AC 100 - 240V, 50/60Hz
	OU	TPUT:DC 5V, 3A
ARM LENGTH	:	90cm
HEIGHT	:	120cm
WEIGHT	:	4.2 kgs (net)

#### NOTE:

1. Best operation transportation and storage, environment at:

Temperature	:	0°C ~ 40°C
Humidity	:	30% ~ 90%.

2. Disconnect power cord plug to fully turn off the equipment.

#### 2 ACCESSORIES

CONTROL BOX WITH ARM+STEM+STAND SWITCHING POWER ADAPTER PROTECTION GLASSES DISTANCE GUIDE

# 8. WARRANTY

1) This product has been fully inspected and conformed to current product specification. It is warranted for its designated usage, against original defects in materials and workmanship for period of 12 months from **shipment date** from APOZA's end. Charges applied to following conditions :

- a. Incorrect or improper operation caused by not following the User Manual instructions.
- b. Disassemble, repair or modify the accessories without approval.
- c. Damage caused by consumption parts, accessories or natural disasters.

We will charge partly cost or inspection fee after the warranty period. Please refer to warranty statement for more details.

2 Special Condition :

The following conditions are **not included** in Apoza warranty:

- a. The damage was caused by user's mistake. (e.g. unsuited power voltage, overheat location of the unit, fallen down by accident ,pressed by hard force or other unusual situations.)
- b. "Apoza specification" or parts had been replaced, disassembled, disposition of the goods or serious damage of shell.
- c. The damage was caused by accidents such as fire, explosion, flood, war riots, earthquake or other irresistible situations.
- d. Damage during transportation.

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## 9. Declaration for Electromagnetic Compatibility

## Note:

- 1. This product needs special precautions regarding electromagnetic compatibility and needs to be installed and put into service according to the note "electromagnetic compatibility.
- 2. Certain types of mobile telecommunication equipment could potentially interfere with this product. The separation distances recommended in the note "electromagnetic compatibility" must be taken into account.

# Warning:

- 1. This product should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, the equipment should be observed to verify normal operation in the configuration in which it will be used.
- 2. The use of accessories and cables other than those specified or sold by manufacturer as replacement parts may result in increased emissions or decreased immunity of this product.

Table 1

Guidance and r	manufacturer's declaration . e	lectromagnetic emissions	
•	0	environment specified below. The it is used in such an environment.	
Emissions test Compliance Electromagnetic enviro			
RF emissions CISPR 11	Group 2	The product must emit electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.	
RF emissions CISPR 11	Class A	The product must be used only in a shielded location with a minimum RF	
Harmonic emissions IEC 61000-3-2	Not applicable	shielding effectiveness and, for each cable that exits the shielded location, a minimum RF filter attenuation of 80 dB from 10 MHz to 20 MHz, 100 dB	
		from 20 MHz to 80 MHz and 80 dB from 80 MHz to 100 MHz. (The	

Voltage fluctuations/

flicker emissions

IEC 61000-3-3

minimum at 20 MHz is 100 dB and the

The product when installed in such a

shielded location, is suitable for use in

connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.

minimum at 80 MHz is 80 dB.)

all establishments other than

domestic and those directly

Not applicable

Gui	dance and manufacturer's d	eclaration - electromagnetic	immunity
	for use in the electromagne		
	er of the product should ass		
IMMUNITY test	IEC 60601	test level	Compliance level
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines	± 2 kV for power supply lines ± 1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 s	<5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Model 004 image intensifier requires continued operation during power mains interruptions, it is recommended that the product be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	If image distortion occurs, it may be necessary to position the image intensifier further from sources of power frequency magnetic fields or to install magnetic shielding. The power frequency magnetic field should be measured in the intended installation location to assure that it is sufficiently low.

NOTE UT is the a.c. mains voltage prior to application of the test level.

	product should assure the IEC 60601 TEST		
test	LEVEL	level	Electromagnetic environment . guidance
			Portable and mobile RF communications equipment should be used no closer to any part of the product, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. <b>Recommended separation distance</b>
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz $\sim$ 80 MHz	3 Vrms	$d = 1.2\sqrt{P}$
Radiated RF IEC 61000-4-3	3 V/m 80 MHz~2.5 GHz	3 V/m	$d = 1.2\sqrt{P} \qquad 80 \text{ MHz} \sim 800 \text{ MHz}$ $d = 2.3\sqrt{P} \qquad 800 \text{ MHz} \sim 2.5 \text{ GHz}$ where <i>P</i> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <i>d</i> is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, <sup>a</sup> should be less than the compliance level in each frequency range. <sup>b</sup> Interference may occur in the vicinity of equipment marked with the following symbol :

Table 3

NOTE 1 At 80 MHz and 800 MHz, 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.

<sup>a</sup> 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 product is used exceeds the applicable RF compliance level above, the Model 006 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the product.

<sup>b</sup> Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

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# WARRANTY STATEMENT

This instrument described below has been fully inspected and conforms to the current products specification.

This instrument is guarantied for its designated use, against original defects in materials and workmanship for a period of 12 months from **shipment date** from APOZA's end. Repairs necessitated by misuse or disassembling of the equipment, or by the parts not provided by the manufacturer, are not covered by this warranty.

) J-500/J-500 plus unit	<ul> <li>Light guide</li> <li>Filter</li> <li>Air tip, Air tip cover, Root canal tip</li> <li>arranty for 3 months: probes of ozone generator, battery *</li> </ul>
ITEM NAME	
SERIAL NO.	
POWER	VOLTAGE
	(TEAR OFF HERE)
RETURN INFOR	RMATION CARD
ITEM NAME	
SERIAL NO.	DATE PURCHASED
POWER	VOLTAGE
CUSTOMER NAME	
ADDRESS	
CUSTOMER NAME	

BT Cool Easy