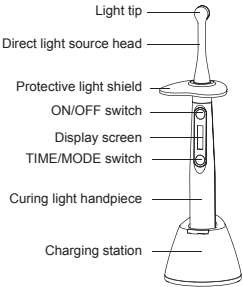


C03-B

BASIC CURING LIGHT INSTRUCTIONS

Intended use: This curing light is intended for use by trained dental professionals for the purpose of light curing dental resins and composites

C03-B BASIC CURE SPECIFICATIONS	
DIRECT LIGHT SOURCE HEAD	10 mm (dia.)
LIGHT WAVELENGTH	385 ~ 515 nm
APPLICATION	General/ Ortho



- Contents:**
- C03-B Curing Light Handpiece with Charging Station
 - C03-B-1 10mm Direct Light Source Head
 - C03-B-2 Protective Light Shield
 - 125SS Disposable Curing Light Sleeves Short Small (100pcs)
 - C03-B-3 Power Adaptor 100 - 240V

ENVIRONMENTAL FACTORS:

Operation: 5°C~55°C / 10%~93% relative humidity / 700hPa~1060hPa atmospheric pressure
Transportation and Storage: -20°C~55°C / 10%~93% relative humidity / 700hPa~1060hPa atmospheric pressure

PRIOR TO INSTALLATION AND START-UP OF THE UNIT READ THESE INSTRUCTIONS CAREFULLY.

This device must be used in strict conformity with these instructions. The manufacturer rejects all liabilities if instructions are not followed or if the device is used for any other applications.

⚠ WARNINGS AND CAUTION:

- High intensity curing lights produce more heat. This is a direct indication of the power of the light being emitted.
- The light radiation produced by this type of device can be dangerous and MUST NOT be pointed at the eyes.
- The light produced by this device must be directed only at the zone to be treated in the oral cavity.
- When using the device for more than 10 seconds, do not keep the light tip in one position. It is always recommended to use a dental syringe to blow a cold air flow on the area during long periods of curing. This will maintain a lower temperature for the composite and surrounding area, particularly when using rubber dam so as to avoid any rubber dam breakage due to heat built-up.
- Uninterrupted exposure times of the same tooth surface in excessive time and direct contact with oral mucosa or skin must be strictly avoided. Polymerization at intermittent intervals is recommended.
- Avoid the light tip coming into contact with any soft tissue in the mouth and do not expose soft tissue to the light being emitted for more than 2 seconds or burns may occur.
- There are many variables (distance and angle between the light tip and composite, area, shade thickness and type etc.) affecting composite curing times. It is recommended to place and cure a maximum of 2 mm for each composite placement. The light tip should be placed approximately 1-2 mm above the composite or resin and pointed perpendicular to the tooth surface.
- Using a barrier sleeve on the curing light will reduce light intensity by 5-10% affecting curing times.
- Always use protective shields and eyewear during curing light operation.
- Do not use the device near a heat source. Do not use solvents, detergents or flammable products to clean or immerse the device in, this may damage the device or cause a short-circuit.
- Prevent any liquid from entering the curing light, charging station or power adaptor.
- Never modify the device or any of its components. Any modification may compromise its safety and effectiveness.

- The curing light is not field-repairable. Do not disassemble this product. Unqualified repairing or tampering with internal parts may lead to serious injury and will VOID the manufacturer's warranty.
- Use only with the adaptor provided by the manufacturer.
- Check the device before every use. Do not use the device if it is damaged in any way. The continuous use of a damaged device may cause injury or improper results.
- Do not place the device in a position where it is difficult to disconnect from the power supply.
- Charge the device for no less than 4 hours before first use.
- When the device is not in use, turn off the power switch and unplug the power plug.
- Charge the device for no less than 2 hours before use if it has not been used for longer than one month.
- The light intensity should be checked regularly with the light intensity meter.
- If the device is used continuously for 60 seconds with the light intensity greater than 1,200 mW/cm², it is recommended to allow the device to cool down before resuming use.

INSTALLATION:

A. CHARGING STATION:

- Plug in the power adaptor connection to the back of the charging station.
- The display screen of the curing light handpiece will display the charging status if the power and the power supply is turned on.

B. CURING LIGHT HANDPIECE:

- Insert the direct light source head into the curing light handpiece with a TWISTING motion. Ensure the direct light source head fits securely in the curing light handpiece.
- Put the curing light handpiece onto the charging station as shown in the above diagram.
- The battery is not fully charged prior to shipment. Please charge the battery for a minimum of 4 hours prior to the first use.
- The curing light circuitry will automatically compensate for power fluctuation during use for a constant light intensity output.
- The display screen of the curing light handpiece will display the battery charging status.
- When the curing light is fully charged, the battery symbol will display FULL
- When the battery is low, the battery symbol on the curing light handpiece display screen starts to flash and the curing light will cease working.
- Please recharge the curing light in the charging station.
- Do not connect the charging station to the power adaptor while not charging the device. Do not use the device while charging.

CHANGING OF SETTINGS AND USE:

- Activate the curing light by pressing the **[ON/OFF]** switch.
- To change the mode, press the **[TIME/MODE]** switch and hold for **[1]** seconds. Select HIGH, NORMAL, RAMP or ORTHO modes by continually pressing and hold for **[1]** seconds to locate the mode. Refer to the Table "CURING LIGHT MODE APPLICATIONS" for the applicable mode settings.
- To change the time, press the **[TIME/MODE]** switch for **[0.5]** seconds. Time can be selected in different increments for HIGH, NORMAL, RAMP and ORTHO modes. Refer to the Table "CURING LIGHT MODE APPLICATIONS" for the applicable time settings.
- Left or right-handed operation: In the standby mode select the NORMAL mode for 15 seconds. After pressing the **[ON/OFF]** switch, the output will start. Immediately press and hold the **[ON/OFF]** switch for 2 seconds, the light output will turn off and the display will switch between the left and right-handed operation.
- Every start and end of the program or every change of time or mode will be signaled with a "beep".
- The curing light will automatically turn off if it is not in operation for 2 minutes. It will keep the last selected program in memory once restarted.
- The operation can be stopped at any time before the countdown ends by pressing the **[ON/OFF]** switch.
- Put on the disposable curing light sleeve to cover the entire curing light for cross infection control. The curing light is now ready for use. Press the **[ON/OFF]** switch to activate the curing light if the display screen is off. When the preparation for light curing is ready, press the **[ON/OFF]** switch to start using the curing light.
- After the light curing process is finished, remove and dispose the curing light sleeve for every patient.

CURING LIGHT MODE APPLICATIONS:

MODE	APPLICATION	SPECIFICATION
HIGH	Super fast curing for resin and composite that is no more than 2mm thick. Also recommended for ceramic brackets, bonding veneers etc.	2,500 mW/cm² for 1, 3, 5 seconds ±10%
NORMAL	For general applications.	1,200 mW/cm² for 5, 10, 15, 20 seconds ±10%
ORTHO	For orthodontic applications. 3 second mesial + 3 second distal for metal brackets resin bonding (with 1 sec blink in-between).	Ort x 05 2,500 mW/cm² for 5 x 3 seconds with 1s interval ±10% OR Ort x 10 2,500 mW/cm² for 10 x 3 seconds with 1s interval ±10%
RAMP	First 0-5 seconds are ramped for general applications.	1st five seconds from 0-1,200 mW/cm² ±10% next 5, 10, 15, 20 seconds 1,000-1,200 mW/cm² ±10%

TROUBLE SHOOTING:

FAULT	POSSIBLE CAUSE	SOLUTION
Device not turning on.	Out of battery.	Charge curing light for no less than 2 hours.
Insufficient light intensity.	Resin remaining on the surface of the light tip.	Clean light tip and remove any resin.
The device is not charging when connected to the charging station.	1. The power adaptor is not connected correctly. 2. Faulty/incompatible power adaptor. 3. Faulty charging station.	1. Check the connection. 2. Change the adaptor. 3. Connect power adaptor directly into the bottom of the curing light handpiece to confirm if charging station is at fault. If yes, replace charging station.
Mode indicator flashes when charging.	Low voltage.	Charge for longer than 15 minutes.

If fault persists contact authorised Premium Plus dealer.




CLEANING AND DISINFECTING:

- Switch off the curing light and disconnect the charging station from the power supply.
- The device is not suitable for steam and high pressure sterilization. It will result in damage to the device.
- The curing light handpiece, direct light source head and charging station can only be cleaned with a non-alcohol based disinfectant wipe for cold sterilization only.

WARRANTY: Curing light is warranted to the original purchaser against any defective workmanship and materials under accepted installation, use, and service for a period of 12 months from date of purchase.

SYMBOLS:


	CE Mark		Medical Device
	Date of manufacture		Refer to instruction manual/booklet
	LOT Number		Caution
	Serial Number		Keep dry
	Catalogue number		Fragile, handle with care
	Manufacturer		Class II Equipment
	EU Authorised Representative		Type B Applied Part
	Importer		Protection from ingress of liquids into handpiece rating
	Distributor		Electronic Waste: properly dispose of when use is discontinued

	Temperature limit: -20°C ~ +55°C		Humidity limitation: 10% ~ 93%
	Atmospheric pressure limitation: 70kPa ~ 106kPa		

EMC-DECLARATION OF CONFORMITY:

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC EMISSIONS		
The curing light is intended for use in the electromagnetic environment specified below. The customer or the user of the curing light should assure that it is used in such environment.		
Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The curing light use RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The curing light is suitable for use in domestic establishment and in establishment directly connected to a low voltage power supply network which supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC IMMUNITY			
The curing light is intended for use in the electromagnetic environment specified below. The customer or the user of the curing light should assure that it is used in such environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 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 interconnecting cable	Main power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line to line ± 2kV line to earth	±1 kV line to line	Main 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 sec	<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 sec	Main power quality should be that of a typical commercial or hospital environment. If the user of curing light requires continued operation during main interruptions, it is recommended that the curing light be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30A/m	30A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE UT is the a.c. means voltage prior to application of the test level.			

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC IMMUNITY			
The curing light is intended for use in the electromagnetic environment specified below. The customer or the user of the curing light should assure that it is used in such environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the curing light, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance: $d=[3,5/V1] \times P1/2$ $d=1.2 \times P1/2$ 80 MHz to 800 MHz $d=2.3 \times P1/2$ 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 <i>d</i> is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol: 
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	
NOTE 1: At 80 MHz end 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.			
a) Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones, land mobile radios, amateur radio, AM and FM radio broadcasts and TV broadcasts cannot be accurately predicted theoretically. 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 curing light is used exceeds the applicable RF compliance level, the curing light should be observed to verify normal operation. If abnormal performance is observed, additional measures such as reorienting or relocating the curing light may be necessary. b) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.			

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC IMMUNITY			
The curing light is intended for use in electromagnetic interference in which radiated RF disturbances are controlled. The customer or the user of the curing light can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the curing light are recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter (W)	Separation distance according to frequency of transmitter (m)		
	150 kHz to 80 MHz d=1.2xP1/2	80 MHz to 800 MHz d=1.2xP1/2	800 MHz to 2.5 GHz d=2.3xP1/2
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance <i>d</i> in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where <i>P</i> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. NOTE 1: At 80 MHz and 800 MHz, the separation distance for 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.			

WARNINGS:

- Portable and mobile RF communication equipment may affect the performance of the curing light. Avoid strong electromagnetic interference when using it, such as close to mobile phones, microwave ovens, etc.
- Unauthorized changes or modifications to the equipment without the express consent of manufacturer may cause damage to the equipment or other equipment.
- This curing light should not be used close to or stacked with other equipment. If it must be used close or stacked, it should be observed and verified that it can be used in the configuration used.
- Except for the cables sold by the manufacturer of the curing light as spare parts of internal components, the use of accessories and cables other than those specified may cause the curing light to increase in emission or decrease in immunity.

LIST OF CABLES:

Name	Type	Length
Power adaptor (output end)	Unshielded Parallel Lines	1.2m



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