The Smallest, Most Powerful and Durable LED Curing Light. Now with a WIDER LENS!
Spring Health Products’ The CURE TC-24A premium curing light is the latest in high-power LED technology providing 1400 mW/cm\(^2\) intensity. The LED has 4 diodes in the tip to provide a 6-second cure at a wavelength capable of polymerizing most light-cured dental materials even through porcelain. The digital timer readout can be set from 2 to 20 seconds, and the all metal housing is durable, easy to disinfect and virtually unbreakable. Small and extremely light weight (1.7 oz) to reduce fatigue the unique ergonomic shape provides a comfortable grip from any angle with a grip diameter of only 3/4 of an inch (19 mm) and is designed to fit in a standard dental unit handpiece holder.

- **ONE OF THE LIGHTEST CURING LIGHTS ONLY 1.7 OZ.**
- **SLIM AND ERGONOMICALLY DESIGNED**
- **EXTREMELY DURABLE, SCRATCH RESISTANT ALL METAL HOUSING**
- **HARD GLASS LENS RESISTS SCRATCHING**
- **LARGER SIZE 11MM LENS**
- **DUAL CONTROL SWITCHES**
- **EASY TO DISINFECT**
- **HIGH/LOW 700-1400 mW/cm\(^2\) intensities**
- **AC POWER**
- **MADE IN USA**

### Technical Specifications:

- **Weight:** 1.7 oz (46 g)
- **Overall Length:** 7.5" (19.05 cm)
- **Grip Diameter:** .75" (1.9 cm)
- **Power:** High/Low programmable setting 1400/700 mW/cm\(^2\) for optional step curing
- **Curing Time:** As little as 6 seconds on most modern composites
- **LED Wave Length:** 440nm - 460nm
- **Timer:** Programmable settings from 2 seconds to 20 seconds
- **Beeper:** Audible beeper at end of time cycle
- **Housing:** Durable, light-weight anodized aluminum housing
- **Replaceable Lens:** 11mm diameter lens is replaceable at chair side
- **On/Off Switch:** Dual on/off switches
- **Input Power:** 110v/220v (Includes AC-DC power supply and cord)
- **Warranty:** 1-year warranty on all parts and labor

### Package Contents:

- Spring THE Cure TC-24a LED curing light
- 2 flat-surface mount hangers
- The Cure orange light-shield
- 50 Barrier sleeves
- Lens wrench

### Accessories Available:

- #TC-CS Protective Barrier Sleeves (400/Bx)
- #662 Radiometer Light Meter
OPERATION MANUAL

the CURE 24

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1. DESCRIPTION

the CURE 24 is a LED dental curing light for the polymerization of dental composites, sealants and adhesives. The CURE 24 is designed for direct wired installation in a dental unit console providing 12 to 28 volts. Models can be available for AC or DC installations.

2. ERGONOMIC FEATURES

a) Light weight
b) Shape resembles a high speed handpiece and can be held like one.
c) Can be mounted with a flat mount surface hanger or Hard Handpiece Hanger (optional)
d) Either of two buttons will activate light allowing for choice of finger positions.

3. SPECIFICATIONS

a) Hard wire enabled. Proper installation by a technician recommended unless supplied with wall plug. For a 24 volt dental unit.
b) Power Input 10 watts
c) Voltage to Handpiece D/C regulated: 12 to 28 volts
d) Operation Continuous operation with intermittent loading. Duty cycle of 20 sec. on and 15 sec. off: 8 timer settings.
f) Lamp Ultra-high output LED. Service center replacement only. Lifetime is 5000 hrs minimum
g) Output Wavelength 450 to 490 nm
h) Output Intensity Greater than 1000 mw/cm²
i) Thermal Safety Handpiece thermostat protection. Unit will shut off for a brief time and four beeps will be heard.
j) Fuse Internal to handpiece. Automatic reset.
k) Shutoff Automatic shutoff at the end of timed cycle or by pressing either button

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4. CONTRAINDICATIONS

This LED has a narrow peak at 470 nm and should only be used on dental formulations containing camphorquinone as the photo initiator, it is contraindicated with other photo initiators. To date this is the only known resin that will not cure properly with this light: Pyramid Enamel (Bisco), Principle (DENTSPLY Caulk) and Den Mat (Core Build-up) The practitioner should perform a test outside of the mouth if in doubt.

5. SAFETY PRECAUTIONS

CAUTION: The light is provided in a non-sterile condition and must be disinfected prior to patient contact. CAUTION: This curing unit produces high output curing energy! A significant increase in curing energy is possible compared with equipment previously used. It is important to observe the following precautions and procedures. CAUTION: Do not place light directly on or towards unprotected gingival or skin. CAUTION: Adjust the curing techniques in accordance with the increase in curing energy. Some examples are: decrease curing time, increase composite thickness, increase distance between the tip of the curing light and light cured materials. CAUTION: DO NOT LOOK DIRECTLY INTO THE LIGHT emitted from this curing unit. Do not use this device without suitable protective eyewear for the operator, assistant and patient. Suitable protective eyewear blocks all energy below 550 nm ATTENTION: Safety protective barrier sleeves should be changed after each patient.

6. INSTALLATION/MOUNTING/OPERATION

The CURE 24 is designed to be installed on a dental unit console and connected to the power supply of the unit. Most dental units supply 24 volts at the central power box. The CURE 24 can be used from 12 to 28 volts and may be connected to an AC or DC power source. We recommend a qualified technician should determine that the supply voltage matches the requirements of the curing light.

Connect the RED and BLACK wires of the cable to the 24 volt supply power and the YELLOW wire to a suitable ground. The CURE 24 is shaped to fit in a rail-mounted handpiece hanger of a dental unit. Handpiece hanger for rail mounting (Optional). Adhesive mounting clips are provided and can be mounted on any flat surface.

OPERATION - To preset the timer press and hold both buttons; the digital timer will scroll down by 2 second intervals. When the desired curing time is reached, release the buttons.

To start the cycle, press either button once for high power or twice (double click) for low power. The timer display counts down by seconds and when it reaches zero (0) the light will turn off and the timer will return to the preset time. The cycle may be stopped manually by pressing either button once. If digital display is in sleep mode, click button once.

7. CURE TIMES

A3 shades and lighter typically take 8-10 seconds to cure. Darker shades and flowables take more time. It is recommended that dentists run their own tests to confirm the full depth of the cure.

8. LIGHT MEASUREMENT

To ensure proper curing, a radiometer should be used on a regular basis to measure the light intensity. There should be little variation with the time since the CURE 24 lifetime is extremely long. If the reading drops off, check to see if the lens is clear. If not, clean or replace lens.

9. CLEANING / DISINFECTING

DO NOT IMMERSION IN LIQUID OR AUTOCLAVE UNIT. Thoroughly wipe off handpiece with cleaning solution or soap and water. Disinfect by thoroughly wiping down with alcohol, phenolic or gluteraldehyde disinfectants per the disinfectant manufacturer’s instructions. Disposable curing sleeves are recommended for each use.

10. LIABILITY

Spring Health considers itself responsible for the safety and performance of the product only if the installation and modifications are done by persons authorized by Spring Health; the electrical installation meets local requirements; and the equipment is used in accordance with these instructions.

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