

# SDI | RADII XPERT

PROFESSIONAL LED CURING LIGHT



SMARTER DESIGN.  
OPTIMAL CURE EVERY TIME.



TARGET ASSIST  
PRECISION CURING



COLLIMATED  
LIGHT



SMART TECHNOLOGY  
FOR EASE OF USE



ERGONOMICALLY  
WELL-BALANCED GRIP

LEADERS IN LED CURING

# SMARTER DESIGN. OPTIMAL CURE EVERY TIME.



## UNIQUE TARGET ASSIST FOR PRECISION CURING

Radii Xpert's unique target assist technology enables you to correctly position the light and be confident of the angulation before curing. A light source must be held close and perpendicular to a restoration to avoid incomplete polymerization<sup>1</sup>. By activating the positioning light and releasing once over the tooth, you can be sure that curing only begins when the light is in position and restorations will receive a complete cure. Ensure you are on target every time with Radii Xpert.



## OPTIMALLY COLLIMATED BEAM

Radii Xpert is the ideal choice for restorations of all sizes, including bulk fill restorations that require a deep cure. The collimated beam ensures light intensity is maintained on the restoration being cured. Achieve a predictable cure, every time with Radii Xpert.



## SMART TECHNOLOGY FOR EASE OF USE

Smart technology improves the efficiency of your dental appointment. An LCD display with countdown timer eliminates estimation and provides accuracy during a curing cycle. Radii Xpert gives you the ability to save your favourite setting and the multi-coloured status rings offer a visual representation when you need to charge or when curing is in progress.



## ERGONOMICALLY WELL-BALANCED GRIP

Radii Xpert's ergonomic design allows you to comfortably access all restoration sites. The 360-degree rotatable head enables restorations in all quadrants to be accessed easily. Radii Xpert has a well-balanced slimline design and can be held in a pencil or pistol grip, minimising hand and arm fatigue.

## BASE WITH INTENSITY INDICATOR

Radii Xpert's built-in intensity indicator allows light intensity to be monitored easily, without the need to purchase an additional hand held meter to assess relative change in output. Routine evaluation of a curing light is important for optimal operation<sup>2</sup>.



# PROFESSIONAL LED CURING LIGHT

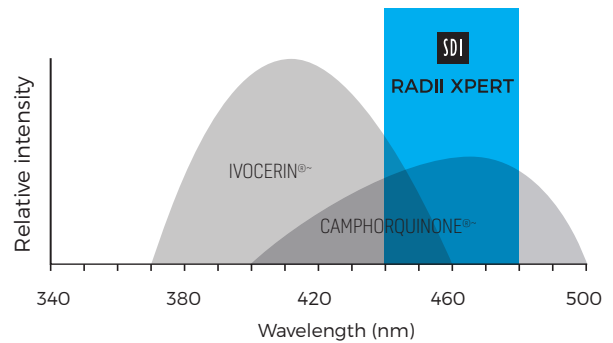
**1500** mW/cm<sup>2</sup>  
LIGHT INTENSITY



## CURES ALL COMPOSITES

Radii Xpert will cure all commercially available composites without the need for a polywave light. The light intensity of 1500 mW/cm<sup>2</sup>\* over a 4 mm aperture covers a wavelength range between 440 nm - 480 nm. Radii Xpert delivers the right spectral distribution without the need for extended wavelengths, giving you a reliable cure for all composites, including those with Camphorquinone and Ivocerin®.

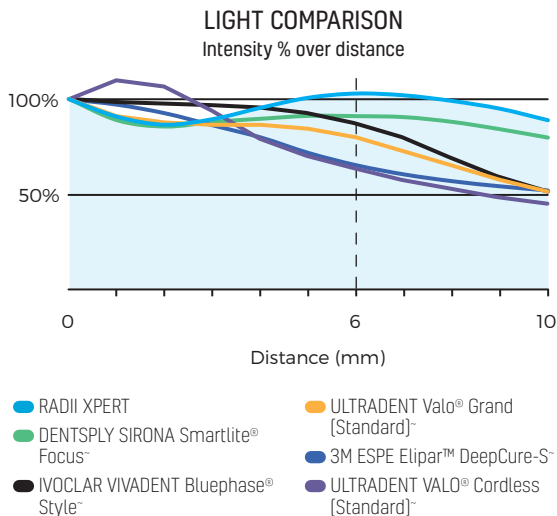
### SPECTRAL DISTRIBUTION\*



SDI Internal Data

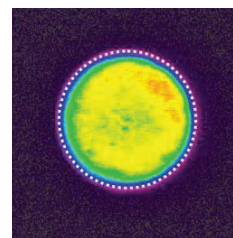
## CONSISTENT LIGHT INTENSITY

Radii Xpert has better performance due to the light intensity remaining consistent over clinically relevant distances. The consistent intensity ensures light will penetrate the underlying restorative with limited drop off, giving you the confidence of a full cure to the depth of a restoration.



## CONSISTENT BEAM PROFILE

Restorations can be cured with the confidence of a uniform beam profile using Radii Xpert. The beam delivers an even energy distribution, with reduced hot and cold spot variation. The entire beam profile of a curing light is important to ensure restorations are cured evenly.



BEAM PROFILE AT 0 MM DISTANCE WITHIN THE ACTIVE AREA.  
BLUELIGHT ANALYTICS INC., 2017



Independently tested by Tufts University School of Dental Medicine, Boston, USA, 2017  
Results normalised to 100% at 0 mm  
Tested on a BlueLight Analytics® Inc. MARC® light collector with 4-mm aperture  
~ These are not registered trademarks of SDI Ltd

# LED ATTACHMENTS AVAILABLE

## ENHANCED HEAT MANAGEMENT

Restorations can be cured safely with Radii Xpert. Heat sink technology is incorporated to reduce the amount of heat emission. Enhanced heat management prevents damage to pulp tissue that can be caused by excess heat<sup>3</sup>.

You can conveniently cure multiple restorations without the risk of overheating the unit. The absence of excess heat also helps to maintain the life of the LED.

## PULSE TECHNOLOGY

Radii Xpert uses a combination of pulse technology and steady current to further reduce heat emitted onto the tooth. With multiple pulses per second, light output is maintained on the restoration being cured, without the risk of overheating.

## INTERCHANGEABLE ATTACHMENTS






Radii Xpert offers versatility with the availability of full arch bleaching, diagnostic and orthodontic attachments that snap in with ease.

## TECHNICAL DATA STANDARD ATTACHMENT

Wavelength	440 nm - 480 nm
Peak wavelength	460 nm
Light intensity	1500 mW/cm <sup>2</sup> (+ 5 %, - 15 %) from 0 - 10 mm distance
Duration of continuous use	20 seconds
Time to charge flat battery	3 - 5 hours
Time to charge battery (general use)	60 - 180 minutes
Battery	1 x 3.7 V 2600 mAh
Multi-region plug pack	AC input: 100 - 240 V ~ 0.8A, 50 - 60 Hz DC output: 12V 1.66A, 20.0W MAX Dimensions: 34mm (H) x 41mm (W) x 62.5 (L) Weight: 104g
Operating temperature	10°C - 40°C / 50°F - 104°F
Weight	185 g / 6.5 ounces
Total height with handpiece	290 mm

Radii Xpert LED curing light has a 3 year warranty.  
Battery has a 2 year warranty.

<sup>3</sup>The irradiance as measured using a 4-mm diameter sensor that is centred.

LED ATTACHMENT TYPE	INDICATIONS	PROGRAM	COLOUR
 Standard LED attachment ø 7mm	Light curing at contra angle similar to a hand piece	• Run time: 2, 10, 20 seconds as selected • Beeps at completion	Blue light (440 nm - 480 nm)
 Diagnostic LED attachment ø 7mm	Detection of cracks, fractures, calculus, decay, caries, root canal openings, non-vital teeth, leaking restorations and root tips	• Run time: 5 minutes • Low, medium or high intensity selections available • Beeps at completion	White light
 Orthodontic LED attachment ø 7mm	Light curing specifically for orthodontic use	• Run time: 5 minutes or 10 seconds as selected • Beeps at completion	Blue light (440 nm - 480 nm)
 Radii Xpert Multiwave LED attachment ø 7mm	• Polymerizing a variety of composites containing camphorquinone in combination with phenyl-propanedione (PPD), acyl phosphine oxide (e.g. Lucirin TPO®) or Ivocerin®.	• Run time: 2, 10, 20 seconds as selected. • Beeps at completion.	Violet light (395 - 480 nm)
 Full arch bleaching LED attachment	• In-office whitening of upper and lower arch • Vital and non-vital whitening procedures	• Run time: 8, 10, 15 minutes as selected • Beeps at half-way point for each selection and at completion	Blue light (440 nm - 480 nm)

# KEY FEATURES

UNIQUE TARGET ASSIST FOR PRECISION CURING

OPTIMALLY COLLIMATED BEAM

CONSISTENT LIGHT INTENSITY

SMART TECHNOLOGY FOR EASE OF USE

ERGONOMICALLY WELL-BALANCED GRIP

CURES ALL COMPOSITES

CONSISTENT BEAM PROFILE

ENHANCED HEAT MANAGEMENT

BASE WITH INTENSITY INDICATOR

"Your curing light is vitally important to your dentistry and your practice. You need several things in a curing light. The Radii Xpert by SDI has all of those things. It gives you functionality and flexibility for everyday use."

Dr Joshua Austin, DDS, MAGD. Dental Economics - United States - November 2020



## 360° ROTATABLE HEAD

Radii Xpert's 360-degree rotatable head enables restorations in all quadrants to be accessed with ease.

## 185g LIGHT WEIGHT

Weighing 185g, Radii Xpert is lightweight and minimises hand and arm fatigue.

## 2.5 HOUR RUNTIME

Achieve 900 x 10 second cures with Radii Xpert before the need to recharge. This equates to a convenient 2-hour 30 minute runtime.

## INTERCHANGEABLE ATTACHMENTS

Radii Xpert offers versatility with the availability of full arch bleaching, diagnostic and orthodontic attachments that snap in with ease.

## SLIMLINE DESIGN

Radii Xpert's slimline design enables easy access to the posterior region of the mouth. This is particularly beneficial when treating children.

## HEAT SINK TECHNOLOGY

Multiple restorations can be cured safely due to the heat absorption properties of heat sink. Heat sink technology directs heat away from the LED, without the need for a cooling fan.

## PULSE TECHNOLOGY

Radii Xpert uses a combination of pulse technology and steady current to further reduce heat emitted onto the tooth. With multiple pulses per second, light output is maintained on the restoration being cured, without the risk of overheating.

## EASY TO CLEAN

Radii Xpert has smooth surfaces and comes with a perfectly fitted barrier sleeve to prevent cross-contamination.

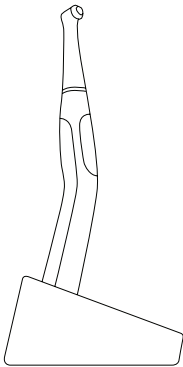
## DURABLE

Radii Xpert is constructed with high strength polymer for durability.

## CORDLESS

Radii Xpert is a cordless unit allowing complete freedom of movement.

# ORDER DETAILS



## RADII XPERT LED CURING LIGHT

<b>Radii Xpert LED curing light</b>	<b>5600300</b>
- 1 x Radii Xpert handpiece	
- 1 x charger	
- 1 x multi-region plug pack	
- 5 x small light shields	
- 1 x large light shield	
- 3 x spare lens caps	
- 100 x barrier sleeves	

## LED ATTACHMENTS

<b>Radii Xpert standard LED attachment</b>	<b>5600301</b>
<b>Radii Xpert full arch bleaching LED attachment</b>	<b>5600308</b>
- 1 x full arch bleaching LED attachment	
- 2 x light shields	
- 50 x barrier sleeves	
<b>Radii Xpert diagnostic LED attachment</b>	<b>5600306</b>
<b>Radii Xpert orthodontic LED attachment</b>	<b>5600307</b>
<b>Radii Xpert multiwave LED attachment</b>	<b>5600311</b>

## ACCESSORIES AND REPLACEMENT PARTS

<b>Radii Xpert replacement lens caps</b> (5 pack)	<b>5600310</b>
<b>Radii Xpert barrier sleeves</b> (1000 pack)	<b>5600309</b>
<b>Radii Xpert small light shield</b> (5 pack)	<b>5600056</b>
<b>Radii Xpert large light shield</b>	<b>5600089</b>
<b>Radii Xpert replacement battery pack</b>	<b>5600305</b>
<b>Radii Xpert charger + plug pack</b>	<b>5600304</b>
<b>Bleach stand</b>	<b>5600095</b>
<b>Full arch bleaching LED attachment barrier sleeves</b> (50 pack)	<b>5600093</b>
<b>Full arch bleaching LED attachment light shields</b> (5 pack)	<b>5600094</b>
<b>Diagnostic adapter tip</b>	<b>5600078</b>
<b>Tacking tip set (1 mm and 2 mm openings)</b>	<b>5600079</b>

~ Not registered trademarks of SDI Ltd.

^Timothy S. Menees et al, (2015), 'Depth of cure of bulk fill composites with monowave and polywave curing lights', American Journal of Dentistry, 28(6): 357-361

1 Marianne Federlin, D.D.S., Ph.D et al (2012), 'Improving Light-Curing Instruction in Dental School', Journal of Dental Education, Vol 77, No 6

2 Christensen GJ 'Are direct restorative resins being cured adequately?', Dental Economics [2013]. Available from: <http://www.dentaleconomics.com/articles/print/volume-103/issue-5/practice/are-direct-restorative-resins-being-cured-adequately.html>

3 E. Armellini et al (2016), 'LED Curing Lights and Temperature Changes in Different Tooth Sites', BioMed Research International, Vol 2016, Article ID 1894672



YOUR SMILE. OUR VISION.



M100315 D

07-2021



+D036M1003151Y

MADE IN AUSTRALIA  
by SDI Limited  
Bayswater, Victoria 3153  
Australia  
[www.sdi.com.au](http://www.sdi.com.au)

**AUSTRALIA** 1800 337 003  
**AUSTRIA** 00800 022 55 734  
**BRAZIL** 0800 770 1735  
**FRANCE** 00800 022 55 734  
**GERMANY** 0800 100 5759

**ITALY** 00800 0225 5734  
**NEW ZEALAND** +64 21 400 323  
**SPAIN** 00800 022 55 734  
**UNITED KINGDOM** 00800 022 55 734  
**USA & CANADA** 1 800 228 5166