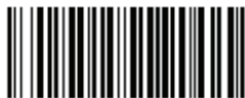


RE-TIMER™

Congratulations. You now own the world's most advanced light therapy device.

Please read this manual carefully before using the device.

Visit us at www.re-timer.com if you have any questions.



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CE₀₁₉₇

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List of Parts Supplied

- › 1x Re-Timer device
- › 1x USB recharging cable
- › 1x instructional manual (this document)
- › 1x travel sock
- › 1x travel case



Definition of Symbols



European Declaration of Conformity:
Class IIa Medical Device



Manufacturer:
SMR Automotive Australia Pty Ltd.
18 Sherriffs Road, Lonsdale, South
Australia 5160



Date of Manufacture



Serial Number



General Warning Sign



EU Representative



Recycling symbol. Symbol in compliance with EU Directive 2002/96/EC on waste electrical and electronic equipment (WEEE) indicating the use of separate collection and recycling methods when disposing of this product.



Refer to Instruction Manual



Type BF applied part



Temperature Limit



Humidity Limit

Indications

The Re-Timer is a portable light device designed to re-time or phase shift the circadian rhythm.

Re-Timer is indicated for individuals with Circadian Rhythm Sleep Disorders (CRSDs) and Seasonal Affective Disorder (SAD).

Re-Timer is designed to overcome the problems associated with traditional modes of light therapy

Contraindications

Research has shown light therapy to be safe. However, please check with your doctor first if any of the following apply:

- ▶ You have sensitivity to light (photosensitivity). Or you have a condition that makes your skin especially sensitive to light. This product operates at a rate of 115 – 314 hertz.
- ▶ You are taking medication which may cause photosensitivity
- ▶ You have or have had any eye disease such as, but not limited to, glaucoma or retinal disorders such as macular degeneration
- ▶ You have been diagnosed with Bipolar disorder
- ▶ Research shows that a small percentage of the population experience side effects when using

light therapy. These side effects may include headache, dry mouth, eye strain, nausea and hyperactivity. These side effects can usually be resolved by simply stopping use of the device.

- ▶ Do not use this product in situations where the light might compromise your ability or the ability of others to perform essential tasks such as driving

Important

These guidelines are not medical directions for treating any condition. Medical diagnosis can only be performed by a registered health care professional. If your doctor has suggested using light therapy, please follow their instructions and discuss any effects with them.

Safety

Please ensure you:

- ▶ Do not use on children younger than 13 years of age
- ▶ Do not use the device whilst battery is charging
- ▶ Keep the unit away from water and damp
- ▶ Use indoors only
- ▶ Do not attempt to remove the battery
- ▶ Recharge the battery using the USB cable provided
- ▶ Do not attempt to service any part of the unit. This could result in electric shock, burns, and/or fire
- ▶ Stop using this device immediately if the lenses above the light source (light emitting diodes) are cracked or missing
- ▶ Do not strain or bend the device's arms
- ▶ Avoid contact between the device and chemicals (such as hairspray)
- ▶ Do not operate this device in temperatures below +5°C / 41°F or above +40°C / 104°F with a relative humidity range of 15% to 93% non-condensing. Batteries can overheat, causing fire or bursting
- ▶ Mains to USB Power Adaptor must be compliant to relevant local standards for Electrical Safety Isolation. Use of a non-compliant power source could result in electric shock, burns and/or fire
- ▶ Never use damaged or worn cords. This could result in electric shock, burns, and/or fire

- ▶ Caution – Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure
- ▶ Keep out of reach of children

The Re-Timer conforms to the electromagnetic compatibility standard for medical devices. It is unlikely to cause interference and affect other electrical or electronic devices in its vicinity. The Re-Timer can, however, be affected by interference by radio transmitting equipment, mobile phones and other electrical or electronic equipment. Such equipment should be put into service according to the EMC information provided at the end of this manual. If interference does occur, simply move the Re-Timer away from the source of interference.

Setting up your Re-Timer

Follow these steps to charge your device:

- 1) Plug the charging cable into the charging port of your Re-Timer (A, *Diagram 1*)
- 2) Plug the opposite end of the charging cable into either your computer's USB port or a USB wall adapter (not supplied)

As the battery charges, the orange LED Battery Indication Light will light up on the display (B, *Diagram 2*). This orange light will remain illuminated until the battery is full. If the battery is fully charged the indication panel will remain blank.

When the battery is fully charged it contains enough power to provide up to 5 hours of battery life. When your Re-Timer is low on battery power the battery indication light will flash red (B, *Diagram 2*).

Warning

You must not use the device whilst it is charging

Note

Should you misplace the USB cable supplied with the Re-Timer please obtain a 1000mm long 'USB2 AM-BM Mini-USB' type cable.

Diagram 1: Port for charging cable

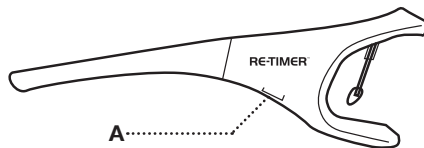
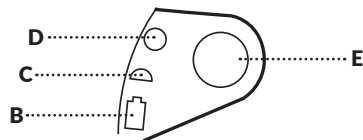


Diagram 2: Indication panel



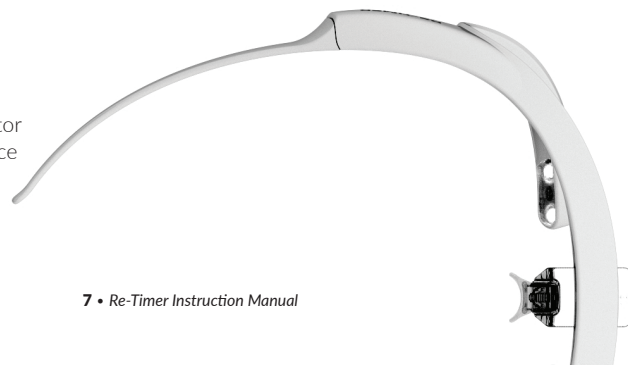
Turning the Re-Timer on and selecting the light intensity setting

Before you place the Re-Timer on your head, turn it on by pressing the control button (E, *diagram 2*) once. This will turn its lights on to the half-brightness setting. If you prefer the full brightness setting, press the control button a second time. You only need to press the button for a moment.

You can see which brightness setting you are using by looking at the control panel. The low brightness indicator (C, *Diagram 2*) will light up when the device is in low brightness mode. The high brightness indicator will light up when the device is in high brightness mode (D, *Diagram 2*).

Note

- The high brightness setting will achieve superior results compared to the low brightness setting
- The human eye cannot perceive the difference in brightness between the low and high settings. However, the output of each setting is very different (refer page 8)



Adjusting Re-Timer

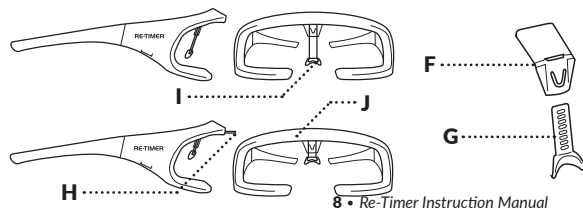
Once you have turned your Re-Timer on and selected your preferred brightness setting, place it on your head. To wear reading glasses while you use your device, put your reading glasses on first, then the Re-Timer. The adjustable nose-piece (*Diagram 3*) can sit either behind or in front of your reading glasses.

Once the Re-Timer is on your head you can make small adjustments. To move the device closer to or further away from your head slide the top section of the nosepiece (*F, Diagram 3*) in and out of the frame (*H, Diagram 3*).

The height of the Re-Timer can be adjusted by the lower portion of the nose-piece (*G, Diagram 3*). This slides up and down and can be used to accommodate your reading glasses. You can select a low position (*J, Diagram 3*) or a high position (*I, Diagram 3*). Adjust the device until it is comfortable.

Tip

Adjust the nose-piece until the light is centred on your eyes. You may use a mirror to assist in aligning the light with your eyes.



Turning Re-Timer off

Once you have finished using your Re-Timer, remove it from your head. Turn it off by pressing the control button (*E, Diagram 2*). Press the button once if you were using the full brightness setting; twice if you were using the half brightness setting.

Note

- Re-Timer will automatically switch off after 60 minutes of use
- Your eyes must be open when using Re-Timer. Otherwise, you will not realise a therapeutic benefit

Diagram 3:
Adjustable nose piece

Using Re-Timer to change your sleep

Re-Timer's green light suppresses the body's production of the hormone melatonin. If the melatonin is suppressed shortly after waking up your sleep cycle will be adjusted to an earlier time (you will fall asleep earlier and wake up earlier).

Using Re-Timer in the morning helps those:

- 1) Traveling eastward – such as those travelling from New York to London*
- 2) Adjusting to an earlier work time – such as transitioning from night shift to day shift
- 3) Diagnosed with Delayed Sleep Phase Disorder or Sleep Onset Insomnia – those wanting to fall asleep earlier

To delay your sleep times, see over page.

Time of day:

Begin use shortly after waking up

Wake up 30 minutes earlier each morning and use Re-Timer

For example, if you usually wake up at 9am, use Re-Timer at 9:30am

Advance use time by 30 minutes each morning by using Re-Timer at:

- 9:30am on morning one
- 9:00am on morning two
- 8:30am on morning three
- Continued...

Continue until you have reached your desired wake up time

Note: in addition to waking up earlier, your body will also want to fall asleep earlier. You will notice this after 3-4 days of Re-Timer use

Duration of use:

Wear Re-Timer for 60 continuous minutes on the High setting

Continue daily as needed. Typically, 6-7 continuous days of use is required.

Do not exceed 60 minutes of use per day (24-hour period)

More information:

*Use our online Sleep and Jet Lag Calculator for a customised program.

Visit www.re-timer.com

Our staff will support you to get the best results. Contact us with your questions any time (refer contact details page 12.)

Re-Timer's green light suppresses the body's production of the hormone melatonin. If the melatonin is suppressed shortly before bedtime your sleep cycle will be adjusted to a later time (you will fall asleep later and wake up later).

Using Re-Timer before bed time helps those:

- 1) Traveling westward – such as those travelling from London to New York*
- 2) Adjusting to a later work time – such as transitioning from day shift to night shift
- 3) Diagnosed with Advanced Sleep Phase Disorder – those wanting to fall asleep later

Time of day:

Begin use shortly before your typical bedtime

Delay your bedtime by 30 minutes each night and use Re-Timer

For example, if you usually go to bed at 11pm, use Re-Timer at 10pm

Delay use time by 30 minutes each night by using Re-Timer at:

- 10:00pm on night one
- 10:30pm on night two
- 11:00pm on night three
- Continued....

Continue until you have reached your desired bed time

Note: in addition to falling asleep later, your body will want to fall asleep later. You will notice this after 3-4 nights of Re-Timer use

Duration of use:

Wear Re-Timer for 60 continuous minutes on the High setting

Continue daily as needed. Typically, 6-7 continuous days of use is required

Do not exceed 60 minutes of use per evening (24-hour period)

More information:

*Use our online Sleep and Jet Lag Calculator for a customised program. Visit www.re-timer.com

Our staff will support you to get the best results. Contact us with your questions any time (refer contact details page 12)

Using Re-Timer to treat Seasonal Affective Disorder

Morning use of Re-Timer, shortly after waking, will assist in improving your mood when there is insufficient sunlight during the winter months.

Time of day:

Begin use anytime between 5am and 10am

Duration of use:

Wear Re-Timer for 45 continuous minutes on the Low setting

Continue daily as needed

Do not exceed 60 minutes of use per day (24-hour period)

Typically, 21 continuous days of use is required

More information:

Visit www.re-timer.com

Our staff will support you to get the best results. Contact us with your questions any time (refer contact details page 12)

Contact Us

For assistance, if needed, in setting up, using or maintaining the Re-Timer or to report unexpected operation or events please contact the representative in your area as listed in the table below.



Region

Europe

Phone +31 (0) 299 405 328

North America

Phone +1 888 961 8247

Asia & Oceania

Phone +61 8 8201 7568

Email

support@re-timer.com

Mail

Re-Time Pty Ltd
GPO Box 2100, Adelaide,
South Australia 5001
AUSTRALIA

Manufactured by



SMR Automotive Australia Pty
Limited

18 Sherriffs Road
Lonsdale, South Australia, 5160
AUSTRALIA

Authorised Representative in Europe



Advena Limited
Tower Business Centre,
2nd Flr,
Tower Street, Swatar,
BKR 4013 Malta

Specifications

Lighting technology

Blue-green 500 nm dominant wavelength, UV-free light

4 Light-emitting diodes (LEDs), 0.1 watts, diffuser cover technology

Light spectrum intensity

High setting is 506 Lux lm/m² and 230 μ W/cm²

Low setting is 315 Lux lm/m² and 143 μ W/cm²

Light pulse

115 – 314 hertz

Useful life

>2,000 hours

Battery

Integrated rechargeable Li-ion polymer battery, 3.7V, 200mAh

Charging Power Supply

5V 500mA compliant to USB global standards

Operating Environment

The operating atmospheric pressure range is 700hPa to 1060hPa.

Transport & Storage Environment

The device must be kept in its black carry case when stored or in transit. Permissible environmental conditions of transport and storage are -25°C (13°F) to +70°C (158°F) with a relative humidity range of 15% to 93% non-condensing.

International Protection Marking Rating

The Re-Timer has an IP (International Protection Marking) rating of IP22. This means that the Re-Timer provides a level of protection against access to hazardous parts by fingers or similar objects and provides a level of protection against the ingress of solid objects greater than 12.5mm in size. Also, vertically dripping water has no harmful effect when the Re-Timer is tilted at an angle up to 15° from its normal position.

Cleaning & Disposal Warranty

Clean your Re-Timer with a dry cloth if necessary but avoid the LEDs. The whole device can also be cleaned with a damp cloth, as long as no moisture gets into the electronics.



Dispose of this product in accordance with local regulations. Do not put the device or its battery in unsorted municipal waste. Dispose of the device by placing it in the appropriate electronic waste collection systems managed by your local authorities. Your local or national recycling organizations may also have disposal information. Contact us at if you require further information on recycling (refer contact details page 12).

The Re-Timer comes with a limited warranty against defects. The device is made according to the highest quality standards. The warranty does not cover improper use or negligence. If the silver label on the inside of the device is removed, the warranty is void. If the device is altered or it is serviced by anyone other than the manufacturer, the warranty will be void.

The warranty applies only to the individual who purchased the device. To make a warranty claim, please contact the retailer from whom you purchased. If you purchased from re-timer.com, please send an email to support@re-timer.com

A copy of this instruction manual can be downloaded from our website at www.re-timer.com.



Guidance & Manufacturer's Declaration

Guidance and manufacturer's declaration - electromagnetic emissions


The Re-Timer is intended for use in the electromagnetic environment specified below. The customer or the user of the Re-Timer should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The Re-Timer uses 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 Re-Timer is suitable for use in all establishments other than domestic 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	
Harmonic fluctuations / flicker emissions IEC 61000-3-3	Not applicable	

Guidance and manufacturer's declaration - electromagnetic immunity			
The Re-Timer is intended for use in the electromagnetic environment specified below. The customer or the user of the Re-Timer should assure that it is used in such an environment.			
IMMUNITY test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
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	Not applicable	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	Not applicable	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% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5s	Not applicable	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Re-Timer requires continued operation during power mains interruptions, it is recommended that the Re-Timer 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	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE: U_T is the a.c mains voltage prior to application of the test level.			

Guidance and manufacturer's declaration - electromagnetic immunity

The Re-Timer is intended for use in the electromagnetic environment specified below.
The customer or the user of the Re-Timer should assure that it is used in such an 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	Not applicable 3 V/m	Portable and mobile RF communications equipment should be used no closer to any part of the Re-Timer, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance Not applicable $d = 1.2 \sqrt{P}$ 80 MHz to 800 MHz $d = 2.3 \sqrt{P}$ 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. 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		
NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies			
NOTE 2 These guidelines may not apply in all situations. Electromagnet 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 Re-Timer is used exceeds the applicable RF compliance level above, the Re-Timer should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Re-Timer.			

Recommended separation distances between portable and mobile RF communication equipment and the Re-timer

The Re-Timer is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Re-Timer can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Re-Timer as 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	
	80 MHz to 800 MHz $d = 1.2 \sqrt{P}$	800 MHz to 2.5 GHz $d = 2.3 \sqrt{P}$
0.01	0.12	0.23
0.1	0.38	0.73
1	1.2	2.3
10	3.8	7.3
100	1.2	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P 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.

Notes

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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