elinchrom

elinca sa switzerland www.elinchrom.com

Operating Manual

Ranger RX Speed / Speed AS
Battery Power Pack (Asymmetric version)

English CE

Table of contents

P.S: Technical data subject to change.
The listed values are guide values which may vary due to tolerances in components used.

Introduction

The Elinchrom Ranger RX Speed S/AS is manufactured by Elinca S.A. CH -1020 Renens/Switzerland

Dear Photographer,
Thank you for buying your Ranger RX Speed S/AS autonomous flash unit.
All Elinchrom products are manufactured using the most advanced technology. Carefully selected component are used to ensure the highest quality and the equipment is submitted to many controls both during and after manufacture.
We trust that it will give you many years of reliable service.
All flash units are manufactured for the studio and location use of professional photographers. Only by observance of the information given, can you secure your warranty, prevent possible damage and increase the life of this equipment.

Ranger RX Speed / AS

The quality of light and exceptional performance is the result of long research, application of demanding principles, the long experience of ELINCHROM in lighting products for the studio and the utilization of the latest technology in this area.
Totally integrated to the range of the ELINCHROM flashes, the Ranger RX Speed S/AS units maintain the traditional look and function that is ELINCHROM.

FCC Class B Compliance Statement

Note:

This equipement has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules and meets all requirements of the Canadian Interference-Causing Equipement Regulations. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipement generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipement does not cause harmful interferences to radio or television reception, which can be determined by turning the equipement off and on, the user is encouraged to correct the interferences by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipement and receiver.

- Connect the equipement into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

ELINCA S.A. is not responsible for any radio or television interference caused by unauthorised modifications of this equipement or the substitution or attachment of connecting cables and equipement other than those specified by ELINCA S.A. The correction of interference caused by such unauthorised modification, substitution or attachment will be the responsibility of the user.

Declaration of conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Product name:	Professional Studio Flash unit
Trade name:	ELINCHROM
Model number(s):	Ranger RX Speed S/AS
Name of responsible party:	Elinca S.A Av. De Longemalle 11 1020 Renens / Switzerland
Phone :	+41 21 637 26 77
Fax:	+41 21 637 26 81

We, ELINCA S.A., hereby declare that the equipement bearing the trade name and model number specified above was tested conforming to the applicable FCC rules, and that all the necessary steps have been taken and are in force to assure that the production units of the same equipement will continue to comply with the Comissions requirements.

Disposal and recycling

This device has been manufactured to the highest possible degree from materials which can be recycled or disposed of in a manner that is not enviromentally damaging. The device may be taken back after use to be recycled, provided that is turnedinaconditionthatistheresultofnormaluse.Anycomponentsnotreclaimed will be disposed of in a environmentally acceptable manner.

If you have any question on disposal, please contact your local office or your local ELINCHROM agent (check our website for a list of all ELINCHROM agents world wide).

CE marking

The shipped version of this device complies with the requirements of ECC directives 89/336/ECC «Electromagnetic compatibility» and 73/23/ECC «Low voltage directive».

Notational Conventions

The meaning of the symbols and fonts used in this manual are as follows:

Pay particular attention to text marked with this symbol.
Failure to observe this warning endangers your life, destroys the device, or may damage other equipement

Supplementary information, remarks, and tips follow this symbol.
Text which follows this symbol describes activities that must be performed in the order shown.

«Quotation marks» indicate names of chapters or terms

User Safety Information

• Do not use in restricted area (like hospitals)
• Do not use in explosive envirronements

Travelling by Air (as well as any other transport option)

Due to strict security regulations, please note :
• Remove the 40 A fuse from the top side of the Battery Box, this desactivates
  the internal «Lead-Gel-Battery»
• Remove the Battery Box from the Ranger RX unit and store separately in your luggage.
• The sealed lead acid battery confirms to the special provisions of **UN No. 2800/238**.
  Also this battery is satisfied with the special provisions **A67** prescribed in
  Non-Dangerous Goods Regulations by **IATA**

Outdoors

• A thermal cut out protects internal electronic components. At high ambient temperatures or
  after rapid or frequent use, the thermal cut out may interrupt the capacitor charge. The display
  will show "ER" .
  After cooling down, the Generator restarts automatically. A Beep signal announces that
  the unit is ready for operation, but note that it will only sound if the acoustic signal is switched on.
• The Ranger RX Speed S/AS power pack is designed to keep out humidity and dust.
  When it is possible, sockets should be sealed with the supplied caps and please ensure the Battery
  Box is secure inside the Ranger RX Speed S/AS housing.
• Never exchange the Battery under damp/humid conditions - look for a dry and clean area!!
• Avoid condensation related problems.
• Take care that the battery is well locked.

Flash Tubes and Modelling lamps

• Flashtubes and modelling lamps in use are very hot!
• Never touch a flash tube or lamp before the unit cooled down and is disconnected from the mains.
• Do not fire flashes from short distance (less than 1m) directed to a person and avoid looking
  directly into the flashlight!
• Keep distance to flammable materials.
• Keep generally distance to operating units.

• Flash systems store electrical energy in capacitors by applying high voltage.
• For your safety, never open or disassemble your flashes.
• Only an authorised service engineer should open or attempt to repair the units.
• For repairs, take them to your elinchrom agent.
• Internal defect charge capacitors may explode whilst the unit is in use, never
  switch on a not proper working flash unit.

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Before you start !

Because a portable unit is frequently used "on location" please be aware of the danger, or inconvenience, which it may represent to others for example children.

• Before you travel or transport the unit: Select the function "Auto Off" (indicated by the green Led illuminated) and switch Off the unit.
  This will give a maximum of security and no loss of battery supply until transport.
• If you travel by airplane remove the battery box and the fuse. (page 9)
• Keep flash units out of reach whenever possible.
• Switch off when not in use and disconnect flashheads.
• Cover or otherwise protect in humid conditions.
• If the unit has been exposed to very cold conditions, sudden exposure to warm or humid air may cause condensation.
• There is high voltage and can be high currents, so please apply all the usual safety precautions when handling the unit, changing fuses, modelling lamps etc, as you would with mains powered electronic flash.
• Do not use near flammable/explosive material.
• Do not open the unit. In the event of damage or apparent failure, contact a repair service or any Elinca agent or email: elinca@elinca.ch
• Always switch off unit before connecting flashheads
• Check always if battery is plugged in correctly
• Check always if flashheads connections are plugged in correctly and locked with the bayonet!
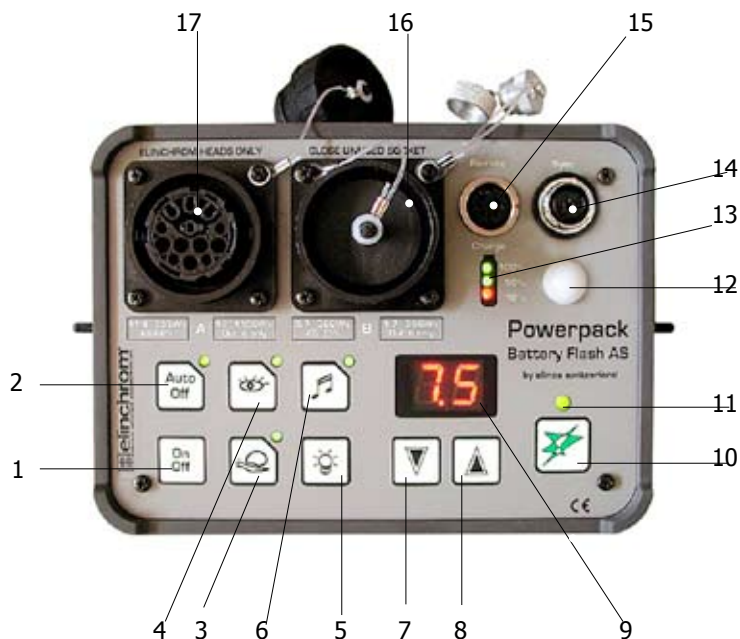
Battery

With a flattened battery in place, the Ranger RX Speed S/AS may be used as an emergency with the charger connected. Efficient battery charging will only re-commence when the Ranger RX Speed S/AS is switched off.

• The charging time is approximately 3 h to full charge.
• The Battery may be re-charged at any time. "Topping up" will not damage it.
• We suggest a spare Battery Box. Whilst one is in use, the other can recharge.
• To recharge the Battery externally, release the Battery Box, and connect the charger to the battery.
• Before changing the Battery Box, please ensure the Elinchrom Charger is disconnected and switch off the unit.

Always switch off the unit before connecting or disconnecting flashheads!
The head connector must always be locked with the bayonet before any use

Overview of Controls

Setup
1. On/Off switch.
2. Automatic Off switch with LED indicator, if no Control is operated, the unit will switch off after 5 min.. Maximises number of flashes.
3. Slow charge with LED indicator. Saves the battery and increases the lifetime of the battery.
4. Photocell on/off switch with Led indicator.
5. Modelling lamp switch, three functions.
6. Charge Ready Beep on/off, with LED indicator.

Power
7. - Power adjustment with ADF (Auto Dump Function) in 1/10 f-stops.
8. + Power adjustment in 1/10 f-stops.
9. Digital power display (7 f-stops in 1/10 positions).

Test
10. Open flash.
11. Flash ready light.

Charge/Sync
12. Photocell on/off.
13. Battery charge indicator (100%, 50% and 10%).
14. Synchro-socket, traditional Elinchrom socket, weatherproofed.
15. Battery charge socket and Remote control, weatherproofed.

Flashhead sockets
16. Flash head socket, with weather proof cover.
17. Flash head socket, with weather proof cover.

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On/Off Switch (1)

By pressing this touch button the Ranger RX power pack is switched on or off.
Note: In the unlikely case of malfunction, please check the charge and modelling lamp fuses.

Auto OFF – Function (2)

If this function is switched on (indicated by the green LED) the Ranger RX power pack will switch off after 5 min when not in use.
Any re-use of the unit restarts the 5 minutes waiting time, before shutting down.
This Auto Off function is to save battery power! 4 Beep signals (if the function is on) indicate that the unit is switching off.

Slow Charge (3)

The green LED indicates that the slow function is selected. In slow mode approx 40 % more flashes are available. (About 195 full power flashes in normal charge mode and approx. 250 flashes with slow charge).
The slow charge mode also increases the battery life, but the recharging time is doubled!

Photocell On/Off (4)

The Photocell (12) is activated when the green LED (4) is illuminated. When switched on, the pack can be remotely triggered by another flash unit! The Ranger RX Photocell is specially designed to work under ambient light situations, but direct sunlight (or other strong lights) may reduce the sensitivity of the cell.

Modelling Lamp (5)

By pressing this touch button once, the modelling lamp functions for 15 seconds.
By pressing the touch twice in 2 seconds, the modelling lamp will switch off after 30 seconds. To switch off the modelling lamp earlier, just press the button again (after two seconds).
The modelling lamp is only available, when using the Ranger S and A heads. The maximum modelling lamp for the power pack is 100 W / 12 V for only one connected flashhead or 50 W / 12 V each for two connected flashheads.
The modelling lamp fuse 10 AF (quick acting) is inside the housing of the Ranger RX pack.
The Battery Box must be released before the fuse can be exchanged.

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Charge Ready Beep (6)

This touche button activates the BEEP acoustic signal. When the LED is illuminated,
1 x Beep signal indicates that the unit is ready for operation.
3 x Beep signals indicate overheating (or defect in the charge circuit), the display (6) willshow "ER"
4 x Beep signals indicate that the unit is shutting down.

Digital Power Regulation (7 and 8)

To select the desired power (in 1/10 f-stops), use the touche buttons. Minimum power is 1.5 (approx 17 Ws) and maximum power is 7.5 (approx 1100 Ws). Pressing continuously, the quick mode is activated for fast power changing.
One second later, the electronics will start to charge or discharge the unit.
The Auto Dump Function (ADF) discharges the unit to precisely the displayed power.
Frequent auto dumping may cause overheating and activate the charge "cut-off".
This risk may be limited or avoided by "open flash" reduction but please note that the consequent re-charging will reduce the total number of "available" flashes
N.B. Power indicator (6) "flashes" during charging and discharging.

Digital Power Display (9)

The actual flash power is shown in an f-stop compatible format, from 1.5 (17 Ws) to 7.5 (1100 Ws). The power range is 7 f stops.
During charging or discharging the display "flashes". In the case of overheating or malfunction the display shows "ER".

Open flash (10)

When the green LED is illuminated the flash may be released manually.
The release blocks during charging, but not during discharging.

Battery Status Indicator (13)

Approx 10 % power is still available when the last green LED goes off (at red) about 10 flashes at max. power.
In emergency, switching off the unit and waiting for some minutes will permit a few extra flashes (at slow charge).
The "intelligent" electronics saves the battery from over discharging. An "Auto Battery Save" system switches off the Ranger RX pack immediately after 4 Beep signals.

Wireless Remote Control and Flash Triggering

The charge socket is as well the interface for the EL-Skyport Trigger and Remote System.
With the **EL-Skyport RX Trigger Set** 19362, the Ranger RX Speed S/AS can be triggered wireless, up to approximatly 100 m distance. Apart from triggering, the Transmitter offers modelling lamp on/off settings and flash power control in 1/10th steps.

By using the **EL-Skyport Computer Remote** / Trigger Set 19361, all Ranger RX functions can be controlled and operated with a Mac° or Windows° computer.

Note :

To connect the Transceiver RX 19353, the Remote Adapter 19374 is required.

For details of the most advanced wireless system please visit :
www.elinchrom.com/products/RX Multi Remote/EL-Skyport

Synchronisation Socket (14)

Connect the Sync lead with the traditional EL-synchro socket 14.
To protect the synchronisation circuits of your camera, Elinchrom uses only 5 Vdc.
Use only Elinchrom synchro leads, code: 11075.

Charge Socket and Remote control (15)

To charge the Battery, use only the Elinchrom charger Code 19293.
The Ranger RX Speed S/AS offers two charging possibilities: Connect the EL charger to the charge socket 15, or to recharge the battery externally, release the Battery Box, and connect the charger to the charge socket on the Battery Box.

How to change the Battery Box:

1. Place the Ranger RX pack on a flat and clean surface.
2. Press simultaneously the two push buttons (on each side of the Ranger RX pack).
3. Lift up the Ranger RX pack approx 5 cm and keep pressing the push buttons.
4. The Battery Box slides out by its own weight.
5. Place the new, charged Battery Box on a clean surface.
6. Place the Ranger RX housing over the Battery Box.
7. The Battery Box locates inside the Ranger RX housing.
8. Press down on top of the Ranger RX pack to activate the locking mechanism.
9. Check, that the Battery Box is secure inside the unit!

Push button

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Battery Charging / Fuses

Use only the Elinchrom Rapid Charger (code 19283). Any alternative charger may damage the unit!!
The EL Rapid Charger is universal voltage. To charge the battery while it is inside the unit, connect the charger to socket 15.
The charger has a coloured LED indicating:

Red: the unit is charging (approx. 3 hrs min. to full).

Code: 19283

Yellow: indicates that the battery is charged to about 80-90% and charges now to 100%.

Green: charging is completed (but if not disconnected no damage will occur, the charge rate stabilizes almost at zero).

The Ranger RX battery can be recharged whilst the unit is in use !

Note:

The 12 V/ 12Ah Gel Electrolyte Battery can be recharged from any charge level, there is no Memory-Effect. The number of flashes may vary from Battery to Battery (due to aging, recycling speed etc.) Even new Batteries may vary, the full capacity of the Battery is available only after some charge cycles. Used batteries may need to be recycled Check your local regulations!

Auto fuse 40 A
Code: 106.056

Charge fuse 6.3AF
Code: 19020

Replacement of fuses for Ranger RX Speed S/AS

1. 40 A Auto fuse (on the top side of the Battery Box).
2. 4 AF (Quick acting / 5 x 20 mm) charge fuse (on the top side of the Battery Box)
3. 10 AF (Quick acting / 5 x 20 mm) modelling lamp fuse inside Ranger
   RX Speed AS housing.
   The Battery Box must be removed before the fuse can be exchanged.

Battery Box:
Code: 19280

Fuse 10AF
Code: 19038

Standard type 5 x 20 mm, 10 AF (quick-action).
For exchanging a blown fuse: Depress and turn the fuse holder anti-clockwise 1/8th and remove it. If the new fuse blows immediately upon reconnection return the pack to an ELINCHROM service centre for a check-up.
(N.B. Check correct value of the fuse: 10AF).

16   17

Ranger RX Speed S/AS Sockets (16, 17)

To connect flashheads, switch off the unit.
Remove the security cover.
Insert the flashhead plug into the flash socket 16, or 17, (the plug fits only in one position) and turn the bayonet locking ring clockwise!
The unused socket must be closed with the security cover.
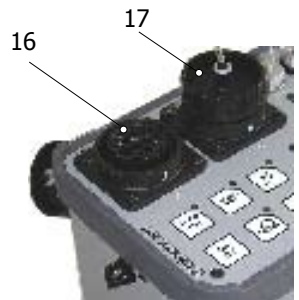
!

• Always switch off the unit before connecting or disconnecting flashheads!
• The head connector must always be locked with the bayonet before any use.

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Ranger/Free Lite S and A Flashheads

Ranger/Free Lite S and A heads are designed specifically for the Ranger RX Speed S/AS battery pack. The special flashhead bayonet plug with locking ring protects against dust and humidity. The modelling lamp can be activated for 15 or 30 seconds.

By pressing the switch (-on the rear of the head-) once, the modelling lamp switches off after 15 seconds, when pressing the switch twice within 2 seconds, the modelling lamp will switch off after 30 seconds.
To switch off the modelling lamp earlier, (after two seconds) just press the touch button again.

- The maximum modelling lamp power for the pack is 100W / 12V for one connected flashhead or two   50 W / 12 V for two connected flashheads.
- The standard Elinchrom reflector fitting with bayonet and breech lock accepts all Elinchrom/Prolinca accessories manufactured since 1974.
- The Ranger/Free Lite S is a universal flashhead for all general studio and location work.
- The Ranger/Free Lite A head comes with a special, short flash duration flashtube, for action freezing photography (One A head 1/2300 s two A heads 1/4310 s, t 0.5 at full power).
- Flashheads are fitted with 3.5 m heavy duty cable.

Modelling lamp switch

Lamp fuse 5AF

Modelling lamp
Art. Nr: 23044

Safety Precautions

- The Ranger flashheads cannot be insulated against humidity and dust.
- Only use them with suitable protection if wet or similary dangerous circumstances.
- Do not use near flammable/explosive material (min 1m distance of any object)
- Do not open the unit. In the event of damage or apparent failure, contact a repair service or any Elinca agent or email: elinca@elinca.ch
- For your safety, use only Elinchrom flashheads.
- Do not fire flashes from short distance (less than 1m) directed to a person and avoid looking directly into the flashlight!

Ranger RX Speed AS with asymmetrical power distribution :

The power split, when one head is connected to plug A or B :
- Plug A provides 100% flash power from 17 – 1100 ws
- Plug B provides 33% flash power from 5.7 – 366 ws

Note: Use plug B for action freezing photography with ultra short recycling time and a flash duration up to a 1/5120 s. See specifications for details.

The power ratio is 2 to 1 by connecting two heads :
- Plug A provides 66% up to 733 ws
- Plug B provides 33% up to 366 ws

Technical Data		Ranger RX		Flashhead	
		Speed	Speed AS	Ranger/ Free Lite	Ranger/ Free Lite A
Maximum power	J/Ws	1100		2400	
Power range	J/Ws	17 - 1100	5,6 - 1100	-	-
Control range	f-stop	1,5 - 7,5		-	-
F-stop, 1m, 100 ISO, with reflector 48°	-	64			
Recycling time fast @ Min/Max power	s	0,3 - 3	A 0,3 - 3 B 0,19 - 1,2	-	-
Recycling time slow @ Min/Max power	s	0,45 - 5,5	A 0,45 - 5,5 B 0,22 - 1,9	-	-
Flash duration @ t 0,5; 1 A and 2 A heads	s	A output 1/2300 - 1/1450 B output 1/5120		-	-
Flash duration @ t 0,5; 1 S and 2 S heads	s	A output 1/1160 - 1/2250 B output 1/2310		-	-
Flashes, out of one charged Battery @ Min/Max Power, slow/fast, recycling		5100-3700 250-195		-	-
Modelling light output 12V	W	2x 50		50/100*	50/100*
*optional 100W halogen lamp, but only one head can be used. (code 23046)					
Voltage across sync cable	VDC	5		-	-
Stabilisation	V	+/- 1%		-	-
Battery lead acid	V/Ah	12V / 12Ah			
Battery recharge time, approx.	h	3			
Dimension	cm	19 x 14 x 27		22 x 13,5	22 x 13,5
Weight	kg	8		2,4	2,4

Tolerances and specifications conforming to IEC and CE standards. Technical data subject to change without notice.

Troubleshooting

E.R.	=> overheating	• Switch off the unit and let it cool down for at least 10mn
	=> Battery related problems	• Needs recharging • Battery charging fuse is brocken, replace fuses (page 10) • Charger is brocken • Battery is out of lifetime
- • -	=> Internal defect	• Do NOT open the unit yourself! • Bring your Ranger RX (with charger, heads, battery & cables) to an Elinchrom service.

Elinchrom Accessories

		code
Reflectors	Wide angle ø 16 cm /90°	26143
	Compact ø 18 cm /60°	26144
	Standard ø 21 cm /50°	26141
	Mini soft ø 44 cm silver	26166
	Mini soft ø 44 cm white	26168
	Snoot & Grid	26061
	Grid for snoot	26427
Grids	Grid set for reflector 18 cm	26135
	Grid set for 21 cm	26051
Filters	Set of 10 color/mixed filters for 21 cm x 21 cm	26243
	Polarizing filter 21 cm	26244
Lightbanks ROTALUX	Square 70 x70 cm	26178
	Square 100 x100 cm	26179
	Strip 95 x 35 cm	26180
	Rectangular 130 x 50 cm	26181
	Octagonal 100 cm	26183
	Octagonal 135 cm	26184
Umbrellas	White diam. 85 cm	26372
	Silver diam. 83 cm	26350
	Translucent diam. 85 cm	26371
Spots	Zoom Spot 18° - 36°	26481
	Mini spot	26420
Stands	Stand 85-235cm	30101
	Stand Master 109-385 cm	30149B
Trigger accessories	Universal Set (1x Transmitter, 1x Universal Receiver and cables)	19360
	EL-Skyport Computer remote set	19361
	EL-Skyport RX Set (need adaptator)	19362
	EL-Skyport RX Adaptator for Ranger RX	19374

Accessories for Ranger RX S/AS (only)

Ranger RX	Battery Box, including battery	19280
	Adapter cable Ranger RX pack to EL standard flashheads	11095
	Shoulder strap for Ranger RX	19289
Heads	Ranger S Standard Flashhead	20100
	Ranger A Action Flashhead	20101
	Ringflash 1500	20493
	Ranger/Free Lite extension cable 4m	11096
Modelling lamps (12V)	Quartz Halogen, GX 6,35 - 12V / 50 W	23044
	Quartz Halogen, GX 6.35 - 12V / 100W	23046

GUARANTEE

This ELINCHROM product will be repaired free of charge by the vending agent if during a period of 24 months from date of purchase its working order is impaired through a manufacturing or material defect. The faulty product should be immediately sent to the authorized dealer or ELINCA agent. This guarantee is not valid for equipment which has been misused, dismantled, modified or repaired by persons not belonging to the ELINCA distribution network. It does not cover flash tubes, lamps and the normal ageing of capacitors. No responsibilities can be accepted for damage resulting from unsatisfactory operation of the equipment, such as wasted film or other expenses.

i **Please „register" your Elinchrom product online, under**
www.elinchrom.com > Downloads > Product Registration

In case you cannot register your Elinchrom unit via internet, please fill in the Guarantee card and post it to Elinca.

Please return this registratioin card directly to	: **elinca sa**
Diese Registrierkarte bitte direkt zurücksenden an	: P.O. Box 458
Veuillez retourner cette carte d'enregistrement directement à	: Avenue de Longemalle 11
Vi preghiamo di far pervenire questa cartolina di iscrizione direttamente a	: CH-1020 Renens
Por favor envie esta carta de registro directamente	: Switzerland

Elinchrom model	:	
Elinchrom modèle	:	
Elinchrom modell	:	
Modello di Elinchrom	:	
Modelo de Elinchrom	:	N°

Date of purchase	:	Dealer	:	
Datum des Kaufs	:	Händler	:	
La date d'achat	:	Négociant	:	
La data di acquisto	:	Il distributore	:	
La fecha de la compra	:	El comerciante	:	

Your full name and address	:
Ihr voller Name und redet an	:
Votre nom complet et adresse	:
Il suo nome pieno ed indirizza	:
Su nombre y apellidos y dirige	:

www.elinchrom.com