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# BRX 250 / BXRi 250

# BRX 500 / BXRi 500

## Service Manual



BRX 250 (20440.1)



BXRi 250 (20460.1)



BRX 500 (20441.1)



BXRi 500 (20461.1)

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## 1. SAFETY NOTICE



The interior of the Elinchrom devices contain components carrying dangerous levels of electric charge, even though the unit has been disconnected from the mains or without supply battery. **Before all servicing operations or repairs, you must execute the following discharge process:**

### DISCHARGE PROCESS OF THE UNIT BEFORE SERVICING

**Note:** The discharge process is best achieved with a suitable Elinchrom Security Box (discharging box)

Code numbers:

**110.305** Security Box 230V

**110.310** Security Box 110V

110.200 Adaptor EL

110.205 Adaptor Ranger RX

110.210 Adaptor Ranger Quadra

110.215 Adaptor Style RX

110.220 Set of hook type test probe clip

110.225 Multimeter cables



1. Set the device at minimum power



2. Switch off the unit and remove the mains cable



3. Remove pilot lamp and flashtube with suitable gloves



4. Connect the discharge box (Elinchrom Service Kit) on the flashtube sockets X401, X404 and discharge the power on these connection points.

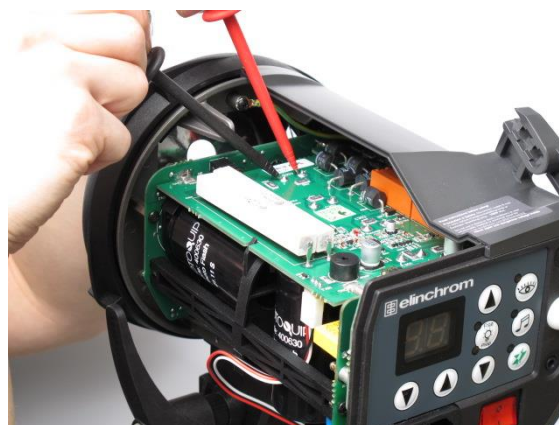
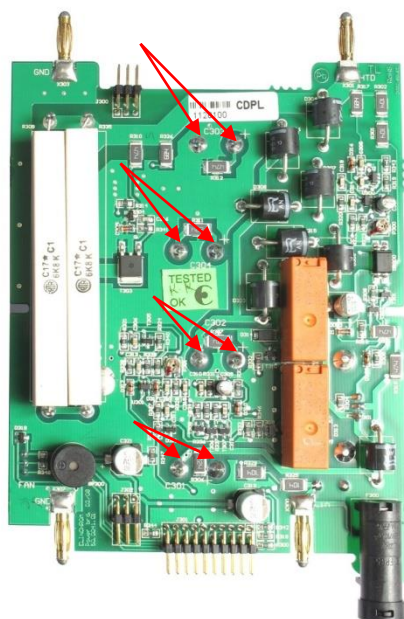


5. Open the left housing and discharge the flash capacitors (HTD voltage) on the flashboard sockets X400, X403

**Note:** do not touch the circuit boards until the end of this process



6. Discharge the four doublers capacitors C301, C302, C303, C304 on the following connection points:



7. Discharge the Booster voltage on the following connection points:  
Flashtube socket X404 (N BOOST), A2 of V400

A2 of V400



8. Now you can disassembling, repairing and servicing safely.



## 2. OPERATION INSTRUCTION

1. Make sure the mains switch<sup>9</sup> stays on position **O**.
2. Plug the power cable to the mains socket<sup>14</sup> and connect it **with a full earthed** source.
3. Plug the sync cord to the sync socket<sup>7</sup>.
4. Turn on the unit by switching the mains switch<sup>9</sup> to the position **I**.
5. Select the power by pressing the push buttons for power decrease<sup>16</sup> and power increase<sup>17</sup>.

### Mise en service

1. Vérifier que l'interrupteur<sup>9</sup> soit sur **O**.
2. Brancher le cordon secteur livré sur la prise<sup>14</sup> et ensuite au réseau qui **soit munie d'une mise à la terre**.
3. Raccorder un câble de synchronisation sur la prise de synchronisation<sup>7</sup>.
4. Enclencher l'appareil en basculant l'interrupteur<sup>9</sup> le mettre sur la position **I**.
5. Choisir la puissance du flash en agissant sur les touches <sup>16</sup> et <sup>17</sup>.

### Inbetriebnahme

1. Der Hauptschalter<sup>9</sup> muss auf **O** stehen.
2. Das Netzkabel an die Gerätedose<sup>14</sup> anschliessen und erst danach mit einer **geerdeten** Steckdose verbinden.
3. Synchro-Kabel an die dafür vorgesehenen Buchsen<sup>7</sup> anschliessen.
4. Das Gerät mittels Hauptschalter<sup>9</sup> einschalten (**I**).
5. Die Blitzleistung kann mit den Tastern Leistung verringern<sup>16</sup> und erhöhen<sup>17</sup> eingestellt werden.



Figure 1: Control panel

#### INDEX

- |     |                                                        |
|-----|--------------------------------------------------------|
| 1.  | Handle                                                 |
| 2.  | Modelling fuse (fast blow)                             |
| 3.  | Eye-Cell on/off                                        |
| 4.  | Acoustic ready signal on/off (Beep)                    |
| 5.  | Eye-Cell receptor                                      |
| 6.  | Open flash / Test button                               |
| 7.  | Sync socket (3.5mm jack/5V sync voltage)               |
| 8.  | Modelling lamp down / scroll in advanced feature setup |
| 9.  | Main ON/OFF switch                                     |
| 10. | Clamp screw                                            |
| 11. | Umbrella holder                                        |
| 12. | Tilt bracket handle                                    |
| 13. | Centred umbrella tube                                  |
| 14. | Main power socket                                      |
| 15. | Main fuse (slow blow)                                  |
| 16. | Power down button / scroll in advanced feature setup   |
| 17. | Power up button / scroll in advanced feature setup     |
| 18. | Modelling lamp on/off/free/proportional                |
| 19. | Display                                                |
| 20. | Modelling lamp up / scroll in advanced feature setup   |

**Note:** According to the safety regulation; we draw your attention to the fact that this equipment should be used only in a dry environment. It must be protected from dripping water and from extremely dusty conditions. The unit must always be plugged into an earthed electrical socket.



### 3. ASSEMBLY DRAWINGS

#### 3.1. Housing assembly

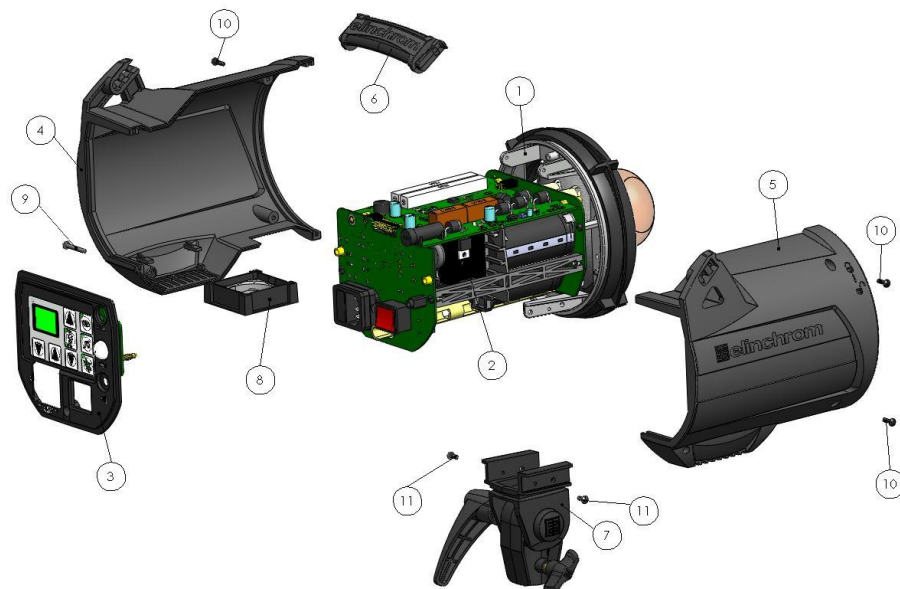


Figure 2: Housing assembly

| No | Qty | Description/Part         |
|----|-----|--------------------------|
| 1  | 1   | Casting frame with front |
| 2  | 1   | Electronics assembly     |
| 3  | 1   | Control panel assembly   |
| 4  | 1   | Left housing             |
| 5  | 1   | Right housing            |
| 6  | 1   | Handle                   |
| 7  | 1   | Tilt bracket             |
| 8  | 1   | Fan with fan tray        |
| 9  | 1   | Self tapping screw 3x20  |
| 10 | 4   | Screw M3x10              |
| 11 | 2   | Self tapping screw 3x8   |

**Note:** For spare parts please see the section *Spare parts*.

### 3.2. Front assembly

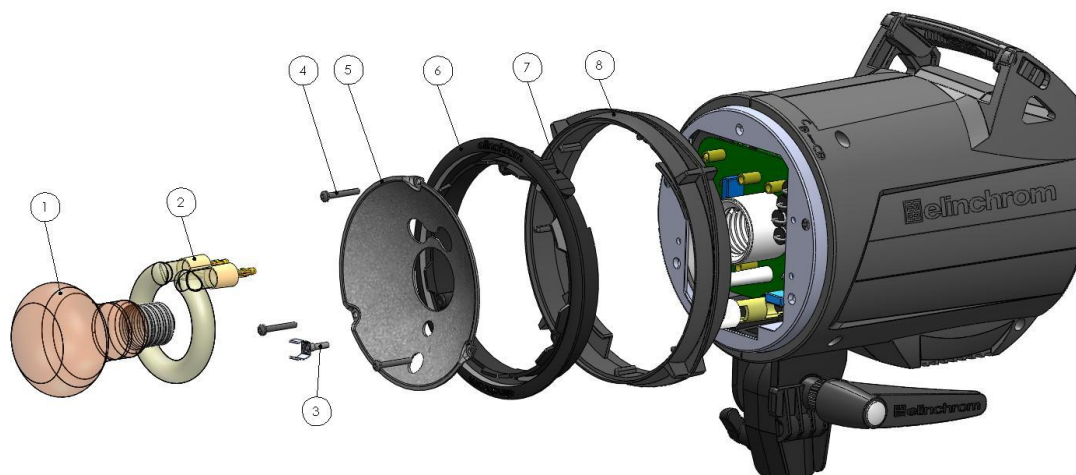


Figure 3: Front assembly

| No | Qty | Description/Part |
|----|-----|------------------|
| 1  | 1   | Modelling lamp   |
| 2  | 1   | Flash tube       |
| 3  | 1   | Trigger post pin |
| 4  | 3   | Screw M3x25      |
| 5  | 1   | Reflector dish   |
| 6  | 1   | Inner ring       |
| 7  | 1   | Bayonet locking  |
| 8  | 1   | Outer ring       |

**Note:** For spare parts please see the section *Spare parts*.



### 3.3. Electronic boards assembly

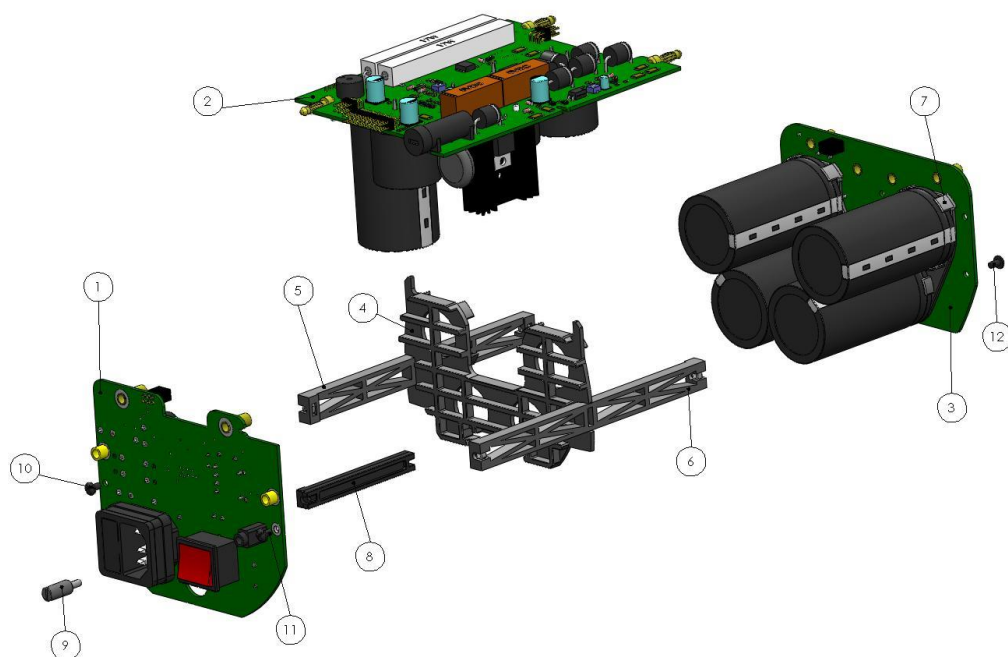


Figure 4: Electronic boards assembly

| No    | Qty | Description/Part          |
|-------|-----|---------------------------|
| 1     | 1   | Mains board               |
| 2     | 1   | Power board               |
| 3     | 1   | Flash board               |
| 4     | 1   | Capacitor rear support    |
| 5, 6  | 1   | Side support with M3 nuts |
| 7     | 1   | Capacitor front support   |
| 8     | 1   | PCB inner support         |
| 9     | 1   | PCB outer support         |
| 10-12 | 4   | Screw M3x8                |

**Note:** For spare parts please see the section [Spare parts](#).

### 3.4. Control panel assembly

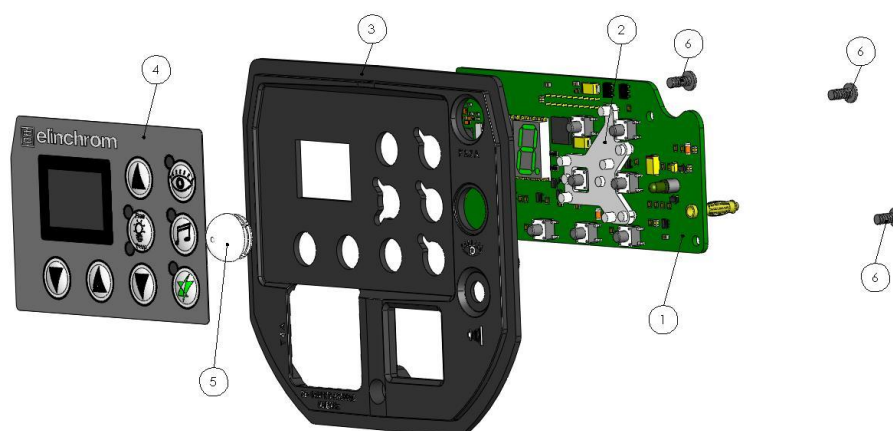


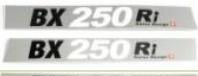
Figure 5: Control panel assembly

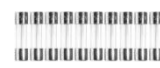
| No | Qty | Description/Part            |
|----|-----|-----------------------------|
| 1  | 1   | KBD board                   |
| 2  | 1   | LED illuminations extension |
| 3  | 1   | Rear plate                  |
| 4  | 1   | Rear sticker                |
| 5  | 1   | Cristal dome                |
| 6  | 4   | Self tapping screw 3x8      |

**Note:** Always set the correct unit type in **Service menu** after replacing the KBD board!  
For spare parts please see the section **Spare parts**.

## 4. SPARE PARTS

### 4.1. Mechanics

| Description                                    | Qty | Note               | Elinchrom No   | Picture                                                                               |
|------------------------------------------------|-----|--------------------|----------------|---------------------------------------------------------------------------------------|
| <b>Housing BXRi / BRX</b>                      | 1   |                    |                |                                                                                       |
| Right housing dark grey                        | 1   | Figure 2: No 5     | <b>227.100</b> |    |
| Left housing dark grey                         | 1   | Figure 2: No 4     |                |                                                                                       |
| Handle with fuses                              | 1   | Figure 2: No 6     |                |                                                                                       |
| Set of housing screws                          | 1   | Figure 2: No 9, 10 |                |                                                                                       |
| <b>SIDE LABELS BRX 250 (Left &amp; Right)</b>  | 1   |                    | <b>227.251</b> |    |
| <b>SIDE LABELS BRX 500 (Left &amp; Right)</b>  | 1   |                    | <b>227.551</b> |    |
| <b>SIDE LABELS BXRi 250 (Left &amp; Right)</b> | 1   |                    | <b>227.250</b> |    |
| <b>SIDE LABELS BXRi 500 (Left &amp; Right)</b> | 1   |                    | <b>227.500</b> |    |
| <b>Keyboard Adhesive Foil BXRi/BRX</b>         | 1   |                    | <b>227.015</b> |    |
| <b>BAYONET LOCKING SET</b>                     | 1   |                    |                |                                                                                       |
| Inner ring                                     | 1   | Figure 5: No 6     | <b>227.185</b> |   |
| Locking                                        | 1   | Figure 5: No 7     |                |                                                                                       |
| Outer ring                                     | 1   | Figure 5: No 8     |                |                                                                                       |
| <b>Complete BRX/BXRi Tilt Head</b>             | 1   | Figure 2: No 7     |                |                                                                                       |
| Device fixture, right part                     | 1   |                    | <b>227.110</b> |  |
| Device fixture, left part                      | 1   |                    |                |                                                                                       |
| Stand fixture with screw and 2 rubbers         | 1   |                    |                |                                                                                       |
| M8 shaft                                       | 1   |                    |                |                                                                                       |
| Umbrella fixture                               | 1   | Figure 1: No 11    |                |                                                                                       |
| Tilt handle                                    | 1   | Figure 1: No 12    |                |                                                                                       |
| Fixing screw                                   | 2   | Figure 2: No 11    |                |                                                                                       |
| <b>COMPLETE UMBRELLA PIPE</b>                  | 1   |                    |                |                                                                                       |
| Umbrella pipe                                  | 1   |                    | <b>227.115</b> |  |
| Distance ring                                  | 1   |                    |                |                                                                                       |
| <b>INNER REFLECTOR SET A-TUBE</b>              | 1   | Figure 2           |                |                                                                                       |
| A-tube reflector                               | 1   |                    | <b>227.120</b> |  |
| Fixing screw                                   | 3   |                    |                |                                                                                       |
| <b>Flashtube A500</b>                          | 1   | Figure 3: No 2     | <b>24000</b>   |  |
| <b>MODELLING LAMP 100W 196V</b>                | 1   | Figure 3: No 1     |                |                                                                                       |
| Modelling lamp 230V                            |     |                    | <b>23002</b>   |  |
| <b>MODELLING LAMP 100W 90-120V</b>             | 1   | Figure 3: No 1     |                |                                                                                       |
| Modelling lamp 110V                            |     |                    | <b>23006</b>   |  |
| <b>10 FUSES 2.5A SP 5X20MM</b>                 | 1   |                    | <b>19033</b>   |  |
| Fuse for modelling lamp                        |     |                    |                |                                                                                       |

|                                                       |   |                   |                |                                                                                     |
|-------------------------------------------------------|---|-------------------|----------------|-------------------------------------------------------------------------------------|
| <b>10 FUSES 8A FST 5X20MM</b><br>Fuse for main supply | 1 |                   | <b>19022</b>   |  |
| <b>TRIGGER FORK</b>                                   | 1 |                   | <b>226.025</b> |  |
| <b>Fan DC5V 0.45W 50x50x15mm</b>                      | 1 | Figure 2: No 8    | <b>227.125</b> |  |
| <b>SET OF INNER FIXING PARTS</b>                      | 1 |                   |                |                                                                                     |
| Capacitor support (front)                             | 1 | Figure 4: No 7    |                |                                                                                     |
| Capacitor support (rear)                              | 1 | Figure 4: No 4    |                |                                                                                     |
| PCB support (inner)                                   | 1 | Figure 4: No 8    |                |                                                                                     |
| PCB support (outer)                                   | 1 | Figure 4: No 9    |                |                                                                                     |
| PCB support (side)                                    | 2 | Figure 4: No 5, 6 |                |                                                                                     |
| Screw M3x8                                            | 4 | Figure 4: No 10   |                |                                                                                     |
| Nut M3                                                | 4 | Figure 4: No 5, 6 |                |                                                                                     |
|                                                       |   |                   | <b>227.130</b> |  |

**Note:** It is not possible to order single parts out of a set!

## 4.2. Electronic boards

### 4.2.1. Mains board

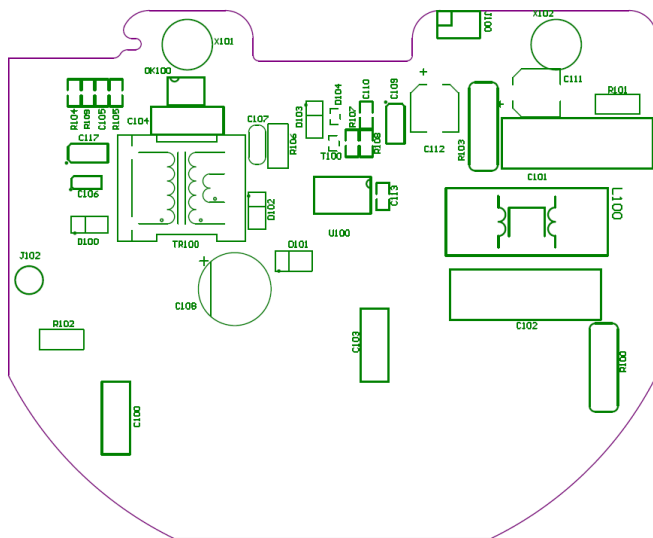


Figure 6: PCB Mains board

| Description             | Qty | Note | Elinchrom No   | Picture                                                                               |
|-------------------------|-----|------|----------------|---------------------------------------------------------------------------------------|
| <b>MAINS BOARD</b>      | 1   |      | <b>227.135</b> |  |
| <b>MAINS SWITCH RED</b> | 1   |      | <b>227.180</b> |  |

4.2.2. Keyboard

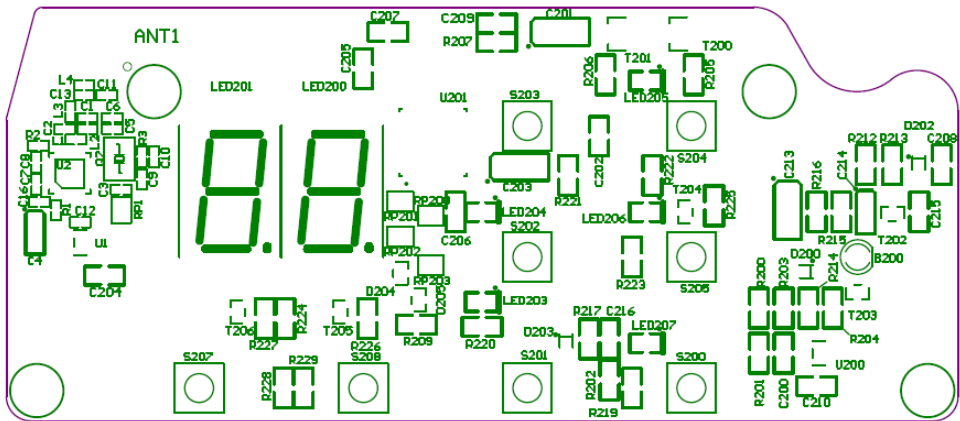


Figure 7: PCB KBD board

| Description          | Qty | Note | Elinchrom No | Picture                                                                             |
|----------------------|-----|------|--------------|-------------------------------------------------------------------------------------|
| KEYBOARD FRONT PANEL | 1   |      | 227.140      |  |

**Note:** Do always set the correct unit type after replacing the Keyboard circuit! See Software configuration.

### 4.2.3. Power Control board

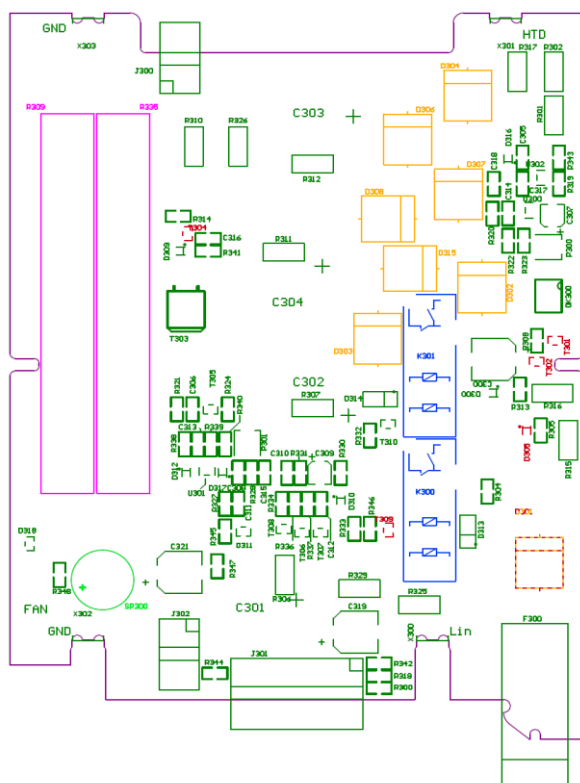


Figure 8: PCB Power board

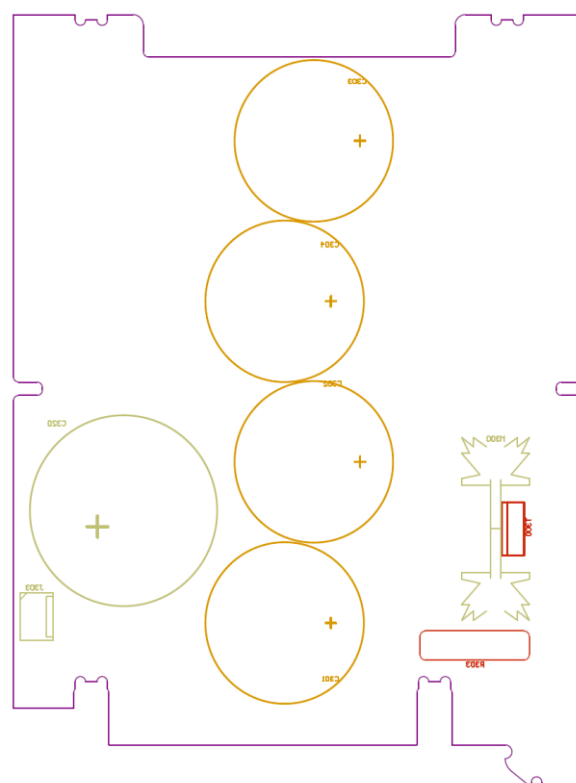


Figure 9: PCB Power board (back side)

| Description              | Qty | Note                   | Elinchrom No | Picture                                                                               |
|--------------------------|-----|------------------------|--------------|---------------------------------------------------------------------------------------|
| POWER CONTROL BOARD      | 1   | Adjusted               | 227.145      |  |
| IGBT SGP15N120 15A 1200V | 1   | T300                   | 105.168      |  |
| POWER DIODE P600         | 8   |                        | 227.175      |  |
| CAPACITOR 220μF/400V MXG | 4   | C301, C302, C303, C304 | 104.207      |  |
| RELAY 8A – 5V            | 2   | K300, K301             | 227.160      |  |
| RESISTOR 6K8/17W         | 2   | R309, R335             | 111.515      |  |
| BUZZER (F/UCW06)         | 1   | SP300                  | 107.026      |  |

**Note:** In the **FX 600 Master** version the value of C330 is **1700μF/350V** (Figure 9).



## 4.2.4. Flash board

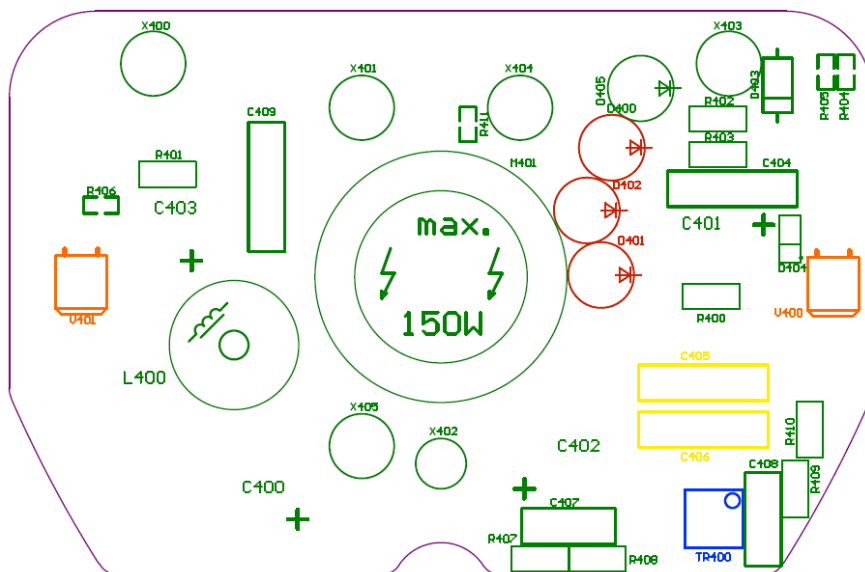


Figure 10: PCB Flash board

| Description             | Qty | Note                      | Elinchrom No | Picture                                                                               |
|-------------------------|-----|---------------------------|--------------|---------------------------------------------------------------------------------------|
| Flashboard BRX/BXRi 250 | 1   |                           | 227.150      |   |
| Flashboard BRX/BXRi 500 | 1   |                           | 227.151      |  |
| MODELLING LAMP HOLDER   | 1   |                           | 226.090      |  |
| CAPACITOR 1500uF 350V   | 1   | Only for BRX/BXRi 250/500 | 14345        |  |
| CAPACITOR 1700uF 350V   | 1   | Only for FX 600 Master    | 14347        |  |
| TRIGGER COIL COMPACT NL | 1   | TR400                     | 100.060      |  |
| TRIAC ST T810-600B      | 1   | V400, V401                | 226.095      |  |
| POWER DIODE P600        | 1   | D400-402                  | 227.175      |  |

## 5. SCHEMATICS OF FLASH BOARD

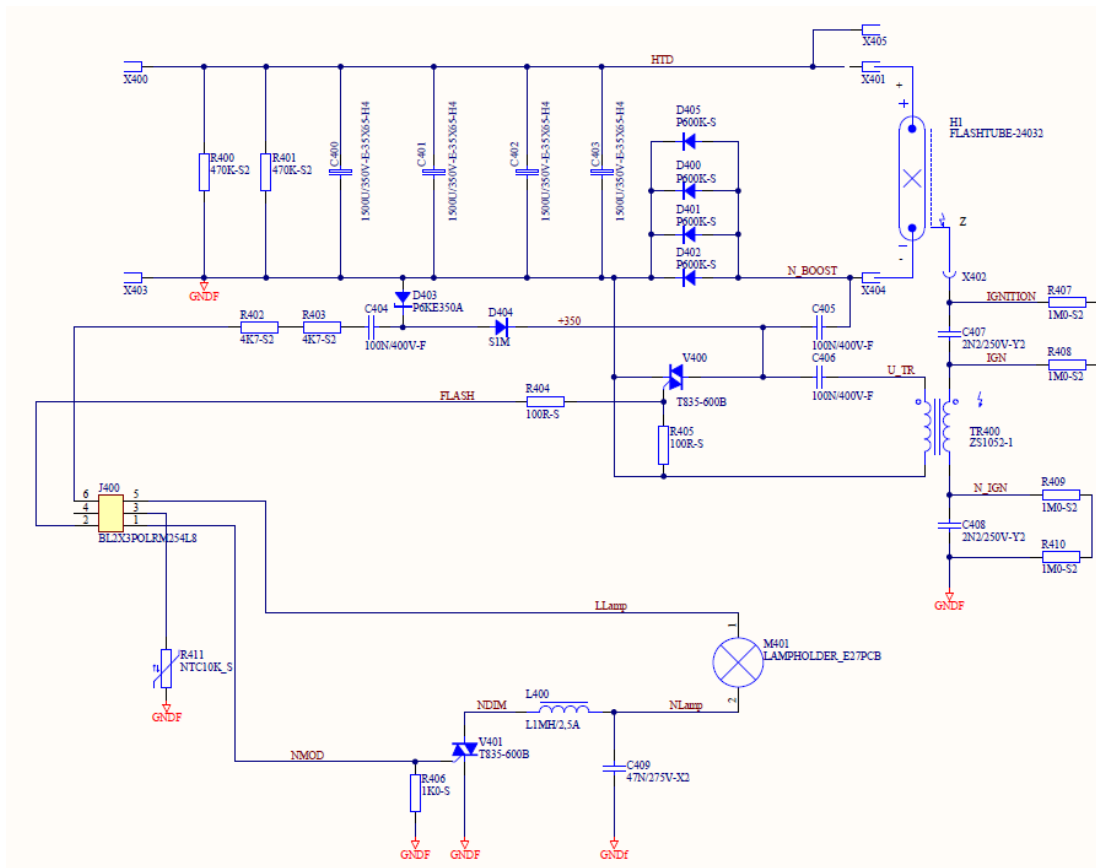


Figure 11: Flash board schematics

| Description                    | Value                          | Qty | Designator                   |
|--------------------------------|--------------------------------|-----|------------------------------|
| Bulb socket for E27 plastic    |                                | 1   | M401                         |
| Capacitor                      | 100nF/400V                     | 3   | C404, C405, C406             |
| Capacitor                      | 2.2nF/250V                     | 2   | C407, C408                   |
| Capacitor                      | 47nF/275V                      | 1   | C409                         |
| Capacitor FLASH <sup>1</sup>   | 1500μF/350V                    | 4   | C400, C401, C402, C403       |
| Diode                          | 350A/600W                      | 1   | D403                         |
| Diode                          | 1A/1000V                       | 1   | D404                         |
| Female Connector 2x3 pole      | 2,54mm / h <sub>max</sub> =8mm | 1   | J400                         |
| Female PCB connector 4mm       |                                | 5   | X400, X401, X403, X404, X405 |
| Flash tube trigger pipe D-Lite |                                | 1   | X402                         |
| NTC Temperature Resistor       | NTC 10kΩ                       | 1   | R411                         |
| Rectifier diode                | 1000V/6A                       | 4   | D400, D401, D402, D405       |
| Resistor                       | 100Ω 5%                        | 2   | R404, R405                   |
| Resistor                       | 1kΩ 5%                         | 1   | R406                         |
| Resistor                       | 1MΩ/1W 5%                      | 4   | R407, R408, R409, R410       |
| Resistor                       | 470kΩ/1W 5%                    | 2   | R400, R401                   |
| Resistor                       | 4.7kΩ/1W 5%                    | 2   | R402, R403                   |
| Thyristor Inductor             | 2,5A/300W                      | 1   | L400                         |
| Triac                          | 8A                             | 2   | V400, V401                   |
| Trigger Coil                   | 15kV                           | 1   | TR400                        |

<sup>1</sup>The **FX 600 Master** is equipped with four flash capacitors (C400 - C403) of **1700μF/350V**.

## 6. SERVICE MENU

### 6.1. Overview

| Sub menu                        | Description                                                                                  | Display                    |
|---------------------------------|----------------------------------------------------------------------------------------------|----------------------------|
| <b>Unit type</b>                | Sets the Unit type <sup>1</sup> .                                                            | 00 - 07                    |
| <b>Temperature<sup>2</sup></b>  | Shows the current measured temperature [°C] of the device.                                   | 00 , 00<br>(t is blinking) |
| <b>Frequency<sup>2</sup></b>    | Shows the frequency [Hz] of the electric supply.                                             | 00 , 50<br>(F is blinking) |
| <b>Charge delay<sup>3</sup></b> | Sets the delay between the made flash and the start of the next charge.<br>Default value = 0 | 00 - 07                    |
| <b>Fan control</b>              | Switches the fan control on and off.<br>Default value = 1                                    | 00 - 01                    |

### 6.1. Software configurations

| Display | Description                | Power range |
|---------|----------------------------|-------------|
| 00      | BRX 250 / BXRi 250         | 1.3 - 5.3   |
| 01      | BRX 500 / BXRi 500         | 2.3 - 6.3   |
| 02      | FX 200 Ri <sup>4</sup>     | 1.0 - 5.0   |
| 03      | FX 400 Ri <sup>1</sup>     | 2.0 - 6.0   |
| 04      | -                          | -           |
| 05      | -                          | -           |
| 06      | -                          | -           |
| 07      | FX 600 Master <sup>1</sup> | 2.5 - 6.5   |

**Note:** Do always set the correct unit type after replacing the Keyboard circuit!

<sup>1</sup> More details in section **Erreur ! Source du renvoi introuvable..**

**Do not forget** to set the correct unit type in the Service Menu after exchanging the KBD board!

<sup>2</sup> This sub menu is just an indication. It is not possible the make any settings.

<sup>3</sup> Delay values to chose: 0=140ms, 1=180ms, 2=260ms, 3=340ms, 4=420ms, 5=500ms, 6=580ms, 7=660ms

<sup>4</sup> This device is restricted to special market only.

## 6.2. How to operate in the Service menu

| Action                    | Description                                                                         |                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Enter Service Menu</b> | To enter the Service Menu press the three keys together for at least 2 seconds.     |    |
| <b>Toggle</b>             | To toggle from the present sub menu to the next one push the modelling lamp button. |    |
| <b>Change value</b>       | Use the power up and down buttons to adjust the value.                              |    |
| <b>Save settings</b>      | Push the Eye-Cell button to save all changed settings.                              |   |
| <b>Exit Service Menu</b>  | Exit the Service Menu by pressing the beep button.                                  |  |

## 6.3. Firmware update

To update the BRX unit, use the last version of the EL-Updater software and the EL-Bridge (19338) with the last firmware version.

Connect the EL-Bridge to the computer with a USB cable and switch the BRX in Update mode (see below). Then start the EL-Updater software and follow instructions.

BRX Update mode: Switch Unit On, hold **Modelling** button and press also **Power-up** button for minimum **2 seconds** until the LED display shows **“Ud”**

## 7. ERROR MESSAGES

The following table describes the possible errors, which could be shown on the display if the unit micro controller detects them:

| Error | Fault                | Description                                                                                                                               | Action                                                                                                                                      |
|-------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| E1    | Over voltage         | <ul style="list-style-type: none"> <li>Short circuit on Power board (Relay, Diodes P600)</li> </ul>                                       | <ul style="list-style-type: none"> <li>Check all power diodes P600 and T300 on the Power board.</li> <li>Replace the Power board</li> </ul> |
| E2    | Over temperature     | <ul style="list-style-type: none"> <li>Unit is overheated</li> <li>Temperature sensor defect</li> <li>Fault on the Power board</li> </ul> | <ul style="list-style-type: none"> <li>Wait for cooling</li> <li>Replace temperature sensor</li> <li>Replace Power board</li> </ul>         |
| E3    | Auto discharge fault | <ul style="list-style-type: none"> <li>Discharge resistor defect</li> </ul>                                                               | <ul style="list-style-type: none"> <li>Replace the discharge resistors or the whole Power board</li> </ul>                                  |
| E4    | Charge fault         | <ul style="list-style-type: none"> <li>Flash lamp is after glowing</li> </ul>                                                             | <ul style="list-style-type: none"> <li>Check all power diodes P600 and T300 on the Power board.</li> <li>Replace the flash lamp</li> </ul>  |
| E5    | Mains supply fault   | <ul style="list-style-type: none"> <li>Slack joint on Power board, Mains board or mains cable</li> </ul>                                  | <ul style="list-style-type: none"> <li>Check and eventually replace the Power board, Mains board and mains cable</li> </ul>                 |
| E8    | Fan management fault | <ul style="list-style-type: none"> <li>Fan defect or blocked</li> </ul>                                                                   | <ul style="list-style-type: none"> <li>Replace fan</li> </ul>                                                                               |

### 7.1. Repair Assistance

| Fault           | Description                                                                                                  | Action                                                             |
|-----------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Skyport problem | <ul style="list-style-type: none"> <li>Distance range problem, trigger missing, bad communication</li> </ul> | <ul style="list-style-type: none"> <li>Replace Keyboard</li> </ul> |

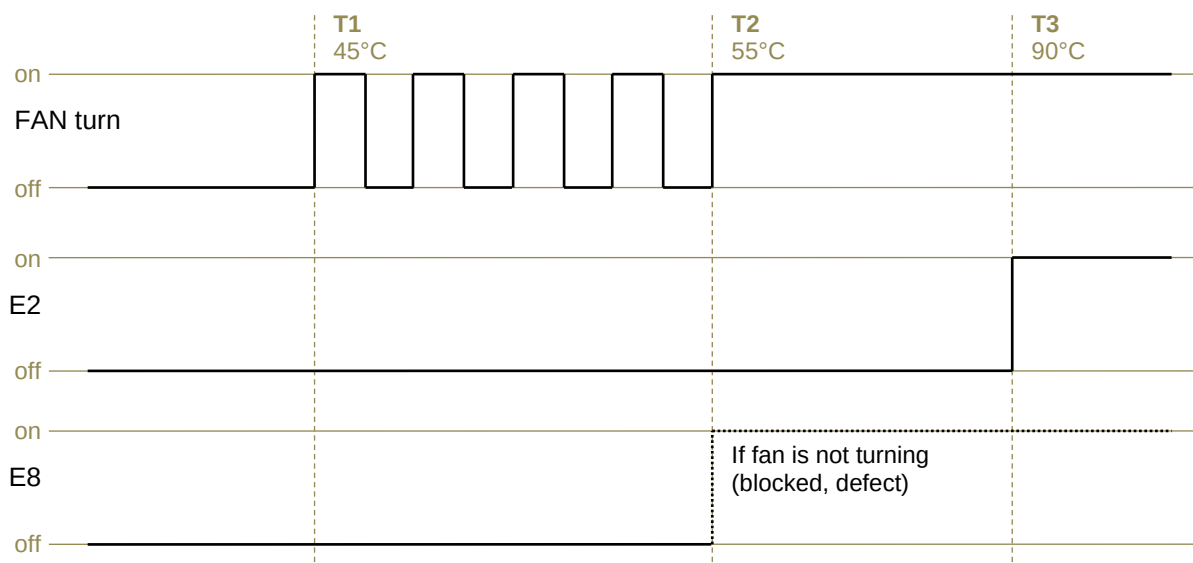
## 7.2. Heat and Fan control

BRX units have two temperature sensors.

Sensor 1 (R411) on the Flash board and Sensor 2 (R355) attached to C302 on the Power Board (since Power board revision 03).

### Sensor 1

The temperature value of Sensor 1 can be displayed in the EL-Skyport software. When the value of Sensor 1 is higher than 90°C, the overheat protection mode (error E2) is activated.



### Sensor 2

Sensor 2 was added since the revision 03 of the Power board to add a new overheat protection on the doubler capacitors.

The temperature value of Sensor 2 cannot be displayed. When the value of Sensor 2 is higher than 80°C the overheat protection mode (error E2) is activated.

*Note : Due to an hardware limitation of the microcontroller after this Sensor 2 add-on, the temperature value displayed in the EL-Skyport Software is jumping to 126°C when the Sensor 2 is higher than 80°C. The displayed value of 126°C is not a real value.*



## 8. FLASH VOLTAGE AND OVER VOLTAGE ADJUSTMENT

### 8.1. Overview

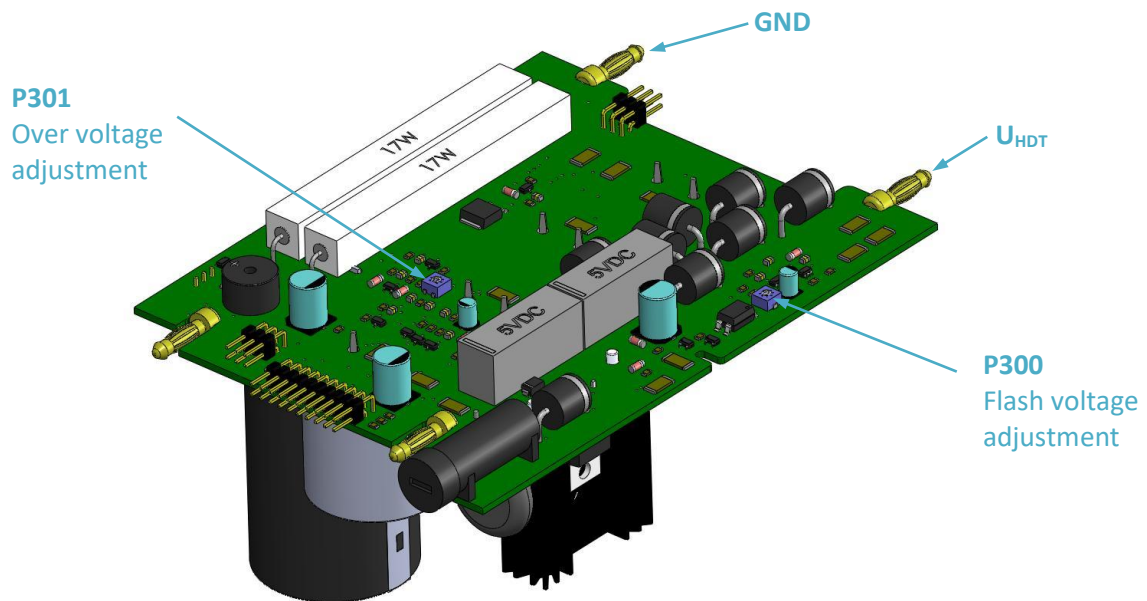
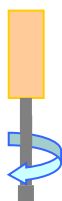


Figure 12: Voltage adjustment on Power board

#### Rotation direction



CCW  
Counter clock wise



CW  
Clock wise

#### Trimmer end positions



Position 1



Position 2

**Note:** Check the exact end position; do not turn over end position!



## 8.2. Adjustment procedure

1. Make sure that the unit electronic module (all electronic boards) are mounted together correctly
2. Adjust Trimmer **P300** and **P301** to its default positions:
  - **P300** (HDT) to **Position 1**
  - **P301** (OV) to **Position 2**
3. Connect a Voltmeter<sup>1</sup> to **GND** and **U<sub>HDT</sub>** on the Power board (see Figure 12) or to the flash tube connectors on the Flash board.
4. Connect mains power<sup>2</sup>, but keep it switched off
5. Switch on the mains switch on the KBD board
6. Switch **on** the mains supply for the unit electronic module
7. Check the measured voltage  $U_{HDT}$ ;
  - If  $U_{HDT} > 300 \text{ V}_{DC}$  you have to switch unit OFF **immediately** then control the trimmer positions or search for an electronic fault!
8. Flash 5 times to format the flash capacitors
9. Set the Power to its maximum value<sup>3</sup>
10. Check the measured voltage  $U_{HDT}$ ;
  - If  $U_{HDT} > 300 \text{ V}_{DC}$  you have to switch unit OFF **immediately** then control the trimmer positions or search for an electronic fault!
11. Adjust **P300 CCW**  to  $U_{HDT} = 350 \text{ V}_{DC} \pm 3 \text{ V}$
12. Adjust **P301 CW** 
  - slowly in small steps, until Power relay switches **OFF** ("E1" will occur on the display)
13. Switch **off** the mains supply for the unit electronic module
14. Adjust **P300** to **Position 1** and wait for at least 5 seconds!
15. Switch **on** the mains supply for the unit electronic module
16. Adjust **P300 CCW**  to  $U_{HDT} = 335 \text{ V}_{DC} \pm 3 \text{ V}$
17. Flash 5-times to format flash capacitors
18. Switch **off** the mains supply for the unit electronic module
19. Disconnect mains power
20. **Wait until flash voltage is discharged, or discharge with external discharge resistor!**



Position 1



Position 2



Discharge and check **always** the flash capacitor and the doubler voltage for **HIGH VOLTAGE** before touching or handling the electronic module!

<sup>1</sup> Select High-Voltage 500 V<sub>DC</sub> / 1000V<sub>DC</sub>

<sup>2</sup> 115V<sub>AC</sub> or 230V<sub>AC</sub> , with 50/60 Hz

<sup>3</sup> See section [How to operate in the Service menu](#) for type specific maximal power value

### 9. KNOWN PROBLEMS AND FAQ

All known problems have a corresponding Technical Note available in the online **Technical Centre**.  
(Distributors Center) [www.elinchrom.ch/agent](http://www.elinchrom.ch/agent)