

# *User Instruction*

## *Converter Module CM-PL 025 E*



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Dear Customer,

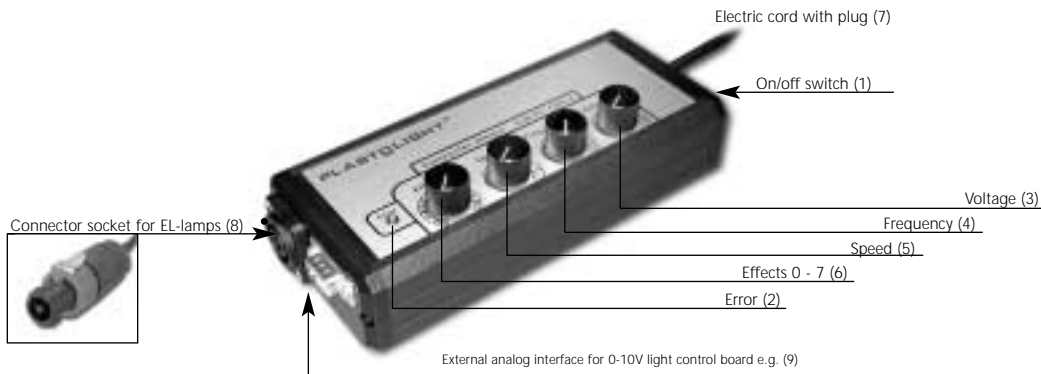
Thank you for choosing a PLASTOLIGHT® Converter Module. We are sure that you will be very satisfied with your purchase. The microprocessor controlled Converter Module is a top-quality power unit supply manufactured in Germany for the operation of Electroluminescent lamps (EL-lamps). The use of high-class components and the development of an innovative circuitry results in high operating safety and efficiency.

Please follow thoroughly the following user instructions to ensure the professional connection and operation of the EL-lamp. The following user instructions apply for all PLASTOLIGHT® Converter Modules out of serial CM-PL 025 E.

## 1. Operating Controls

The following terms are given to make working with the converter module CM-PL 025 E easier. An explanation of the labels on the converter module CM-PL 025 E is given below (see figure).

- On/off switch (1)
- Red warning light (2): Error! This light comes on when there is a problem with the unit.
- Voltage control (3): Sets the operating voltage to 0-150 V AC.
- Frequency control (4): Sets the operating frequency to 200-800 Hz.
- Speed control (5): Sets the speed for effect programs 1-7.
- Effect control (6): Selects effect programs 1-7
- Electric cord with plug (7)
- Connector socket for EL-lamps (8)
- External analog interface (9) – controls dials (3-6):  
for 0-10 V light control board or other accessory



## 2. Scope of Supply

- ready to plug-and-play converter module CM-PL xxx E
- unmounted connector plug to connect EL-lamps (Neutrik, Art. Nr. NL2FC)
- Warranty Card

## 3. Initial Operation of the Converter Module

Please check if the cord extending from the EL-lamp is configured with a matching connector (see page 3). If so, proceed as described in chapter 3.1. If no matching connector is configured on the EL-lamp, please read chapter 3.2. carefully first.

### 3.1 EL-Lamp with Neutrik-Connector

Take the cord extending from the EL-lamp and plug the connector into the connector socket (8) on the converter module. To lock the connector into the socket, turn the ring on the connector clockwise, and the connector will tighten. This makes it impossible to pull the cable out of the converter module.

Once the connector is secured in the socket, make sure that all four controls (3-6) on the converter module are set to »Minimum,« i.e., turned all the way to the left.

Then plug the electric cord (7) into the wall and switch the converter module on (1).

### 3.2 EL-Lamp without Neutrik-Connector

Before you can use your EL lamp, you must properly connect the provided plug with your EL lamp.

Solder the two-pole connecting cord for the EL lamp at the two designated contact points for the provided connector plug (see also Neutrik installation instructions). The converter module works with output-side AC power, so you do not need to match polarities when connecting the two-pole connecting cord to the plug.

Tip: Use heat shrinkable tubing for cords with  $\varnothing < 6$  mm.

Tip: Cords with soldered-on cable end sleeves are easier to use

Once you have connected the plug properly, proceed as described in Chapter 3.1.

## 4. Converter Module Controls

Use the voltage control (3) and frequency control (4) dials to set the brightness and color tone to the desired levels. Use the effects control (6) to select seven different effect programs, and adjust the speed of these programs using the speed controller (5).

### 4.1 Setting the Brightness and Color Levels

Start by turning the voltage control (3) dial slowly to the right. The EL-lamp will slowly get brighter. The light surface will get brighter and brighter as you continue turning the dial to the right.

Next, turn the frequency control (3) dial slowly to the right. This primarily changes the tone of the light. On the left side of the dial, the light will have a »warmer« quality to it. As you turn the dial to the right, the light will seem to grow »lighter« and »colder« (more white).

**Note:** The service life of EL-lamps depends on the brightness (voltage and frequency) that you set. Therefore, to maximize the life of the light source, we recommend that you never set the light source any brighter than necessary (cf. p. 7, bottom).

### 4.2 Setting the Effects and Speed

The effect control (6) dial enables you to use different light effects on your EL-lamp. You can choose from seven different effect programs (see box below).

The speed control (5) dial controls the speed of the individual light effect programs. As you turn the dial to the right, the effect speed will increase in a continuously variable fashion.

Unlike conventional light sources, operating the EL-lamp in one of the effect modes will not decrease its service life.

#### Overview of effect programs

<input type="checkbox"/> Off	Constant light
<input type="checkbox"/> Effect 1	Blinks
<input type="checkbox"/> Effect 2	Flashes
<input type="checkbox"/> Effect 3	Sine wave pattern
<input type="checkbox"/> Effect 4	Positive sawtooth wave pattern
<input type="checkbox"/> Effect 5	Negative sawtooth wave pattern
<input type="checkbox"/> Effect 6	Triangular wave pattern
<input type="checkbox"/> Effect 7	Irregular

## 5. Red Warning Light

If the red light (2) comes on, it indicates a problem with the unit. Switch the converter module off using the on/off switch (1) and unplug (7) the unit from the wall outlet. If the light is continuous, this means there is a short circuit. If the light is blinking slowly, it means that nothing is drawing power from the converter module (e.g., EL-lamp or power cord are either not working or not connected). If the light is blinking quickly, it means that the unit has overheated.

First, check whether the cable between the converter module and the EL-lamp is properly connected and undamaged. Stop using the system immediately if there is any visible damage. Stop using it immediately if you see damage to the EL-lamp, the cord, etc.

If there is no visible damage, restart the converter module as follows: Plug the power cord (7) into the wall. Turn all controls to »Minimum« (all the way to the left), and switch the converter module back on. Continue as described in Section 4.

If the red light (2) comes on repeatedly, and you can safely conclude that the EL-lamp is not malfunctioning, we recommend that you pack the converter module and the warranty card in its original packaging and ship the system back to PLASTOLIGHT®, so that we can check the system and repair it if necessary.

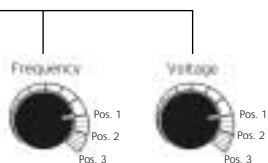
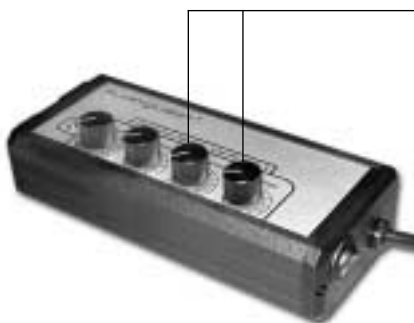
## 6. Safety Information and Warnings

- **Warning: The converter module use high voltage.**
- The converter module must always be turned off before you connect or disconnect the EL-lamp.
- Only PLASTOLIGHT® is authorized to make repairs. Attempted repair by any other party will immediately void the warranty.
- Only a qualified technician may perform repairs. The system must always be unplugged before repair work begins.
- If the red light comes on, it indicates a problem with the unit (see Section 5 above).
- The converter module is for indoor use only.  
Do not use it outdoors!
- Keep the converter module away from moisture.
- Protect the converter module from extreme heat.
- Damaging the light surface of an EL-lamp may result in personal injury.
- Always make sure that the converter module is in an easy-to-access location that receives sufficient ventilation. This will prevent the converter module from overheating.
- Never allow children to work with the converter module without adult supervision.

## 7. Technical Data for Converter Module CM-PL 025 E

Input	100 - 240 V AC, 50 / 60 Hz 140 - 250 V DC 45W max.
Output	0 - 150 V AC eff., 200 - 800Hz 40W max., 100VA max. (effective power)
Galvanically isolated	yes
Output current	Electronically limited, protected against short circuits and open-loop operation
Overload display	Red warning lamp (LED)
Integrated programs	7 effects: blinking, flashing, sine wave, positive/negative sawtooth, triangular wave, irregular
External analog interface	0-10 V, e.g. light control board, PC-Interface
Maximum light surface of the EL-lamp	2.500 cm <sup>2</sup> (approx. DIN A2 size, minimum DIN A5)
Housing	Aluminum top and plastic side covers
Dimensions (L x W x H)	180 x 80 x 40 mm
Certification	TÜV-certified (TÜV/GS-mark) and CE

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It is possible to operate the EL-lamp with the converter module controls at their maximum settings (Pos. 3). However, running the system at very high operating parameters will reduce the life of the light source. Therefore, we recommend that you keep the settings on new units at or below Pos. 1. The EL-lamp light sources age with use, and their brightness eventually wanes. You can counteract this aging process by increasing the voltage and frequency settings on older units to Pos. 2 and Pos. 3.



## Manufacturer and Sales Office

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