



GAMING, AMUSEMENT AND INDUSTRIAL COMPONENTS

## Xenon Led Topper

### Product Manual

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**104-07890**



GAMING, AMUSEMENT AND INDUSTRIAL COMPONENTS

Antonie van Leeuwenhoekstraat 9  
3261 LT Oud Beijerland  
The Netherlands  
Tel: +31(0)186-643333  
Fax: +31(0)186-643322  
Web: [eu.suzohapp.com](http://eu.suzohapp.com)  
Email: [info@suzohapp.nl](mailto:info@suzohapp.nl)

**Revision History**

<b>Revision</b>	<b>Date</b>	<b>Comment</b>	<b>By</b>
0.1	3 Oct 2005	Initial Release	R.T.
1.0	27 Aug 2012	Final Release	E.S.

This manual is intended only to assist the reader in the use of this product and therefore Suzo International shall not be held liable for any loss or damage whatsoever arising from the use of any information or particulars in, or any omission from this manual or any incorrect use of the product.

Design and specifications are subject to change without notice.

Wijzigingen in ontwerp en technische gegevens voorbehouden, zonder kennisgeving.

La conception et les spécifications sont modifiables sans préavis.

El diseño y especificaciones están sujetos a cambios sin previo aviso.

**WARNING!**

**Failure to observe the interface requirements specified in this technical manual may result in damage to the electronics.**

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## 1. Introduction

The Suzo-Happ group has now introduced some new topper designs.

These units can be put on top of gaming machines as a people attraction device or to promote certain gaming machines.

## 2. Safety Note

To meet the requirements for EN 60950 the equipment must be installed according to the following requirements: The equipment must be protected by a 2A fuse.

The equipment must be supplied from a SELV limited power source.

The equipment must be installed in an enclosure but positioned so that it is external to any fire enclosure area within the main enclosure.

## 3. General Description

### 3.1 Description

The topper ring consists of 32 individually controlled white led's, grouped in four banks of 8 led's.

**Only after power up (V1.2 and up):**

After power up, the upper half of the led's show the software revision number.

Software version: Upper left 8 led's: Major version, Upper right 8 led's: Minor version

### 3.2 Display Patterns

The standard software version displays the following sequence of patterns:

**Continuous repeating pattern sequence:**

1. Pause
2. Snake
3. Pause
4. Train
5. Pause
6. Stars
7. Pause
8. Mill

### 3.3 Intensity control

The intensity can be controlled by the small push button on the board (Software V1.2 and up).

Pressing the button once shows the current intensity level on the upper left 8 led's.

Pressing it again increases the intensity level one step. Pressing beyond it's maximum level, the mode in which the led's are always off or on is entered. See next sections.

### 3.4 Pattern led's always off

Since V1.5 the topper led's can be turned off continuously. Click the intensity button beyond its maximum intensity until led 12 will lit.



**Fig. 1 Led positions for leds always off**

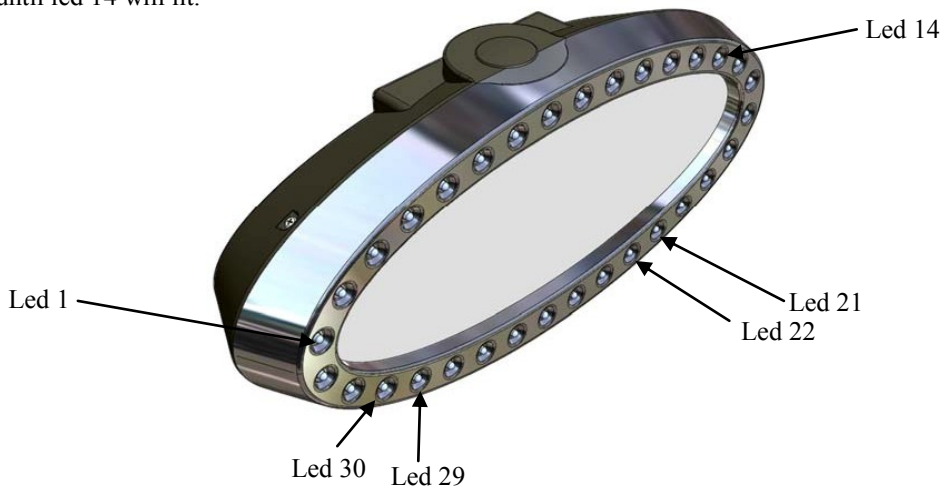
Wait 5 seconds until the intensity setting finishes.

All led's will be off now.

By pressing the intensity button once again, then after 5 seconds normal pattern operation will continue.

### 3.5 Pattern led's always on

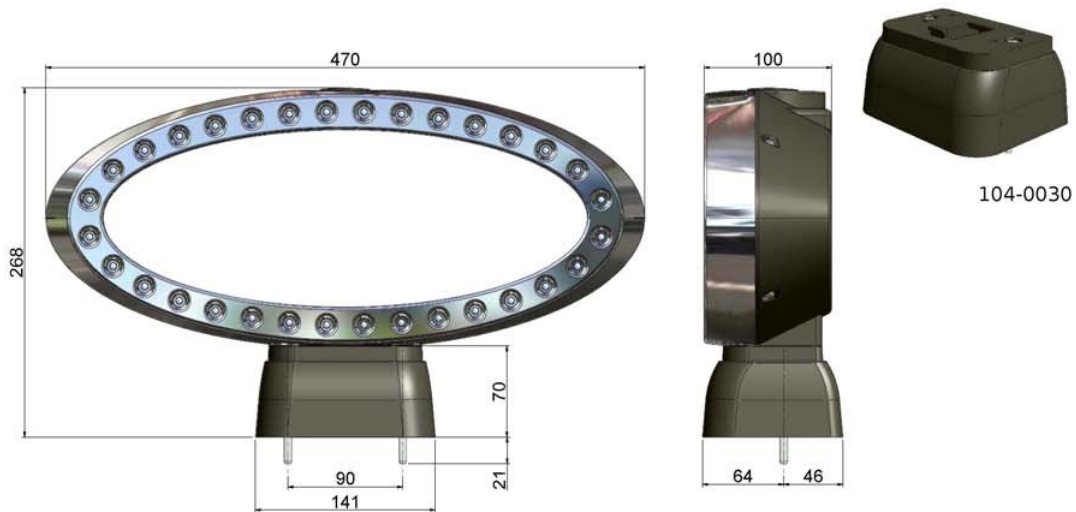
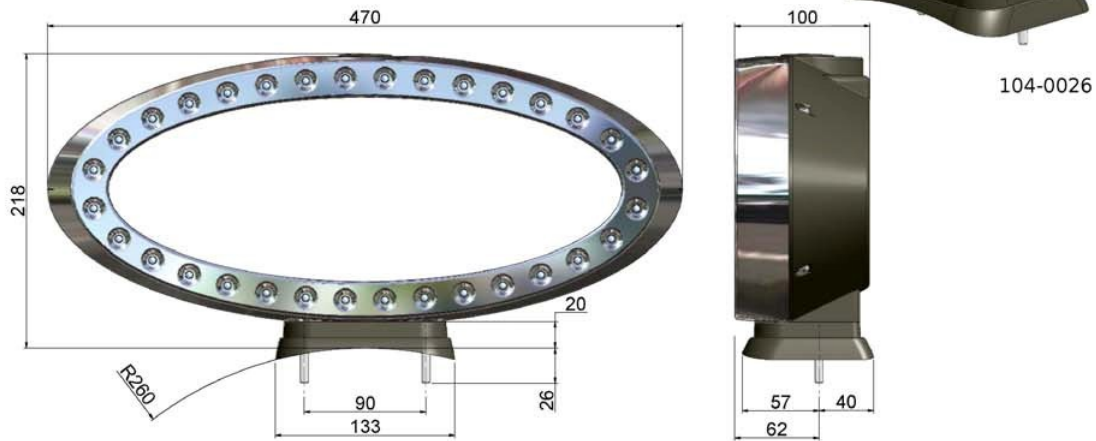
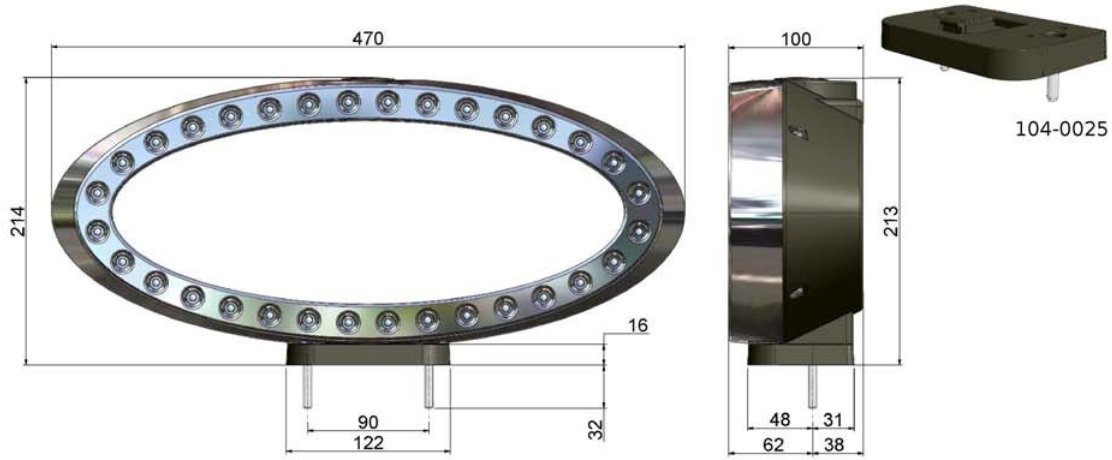
Since V1.5 the topper led's can be turned on continuously. Click the intensity button beyond its maximum intensity until led 14 will lit.



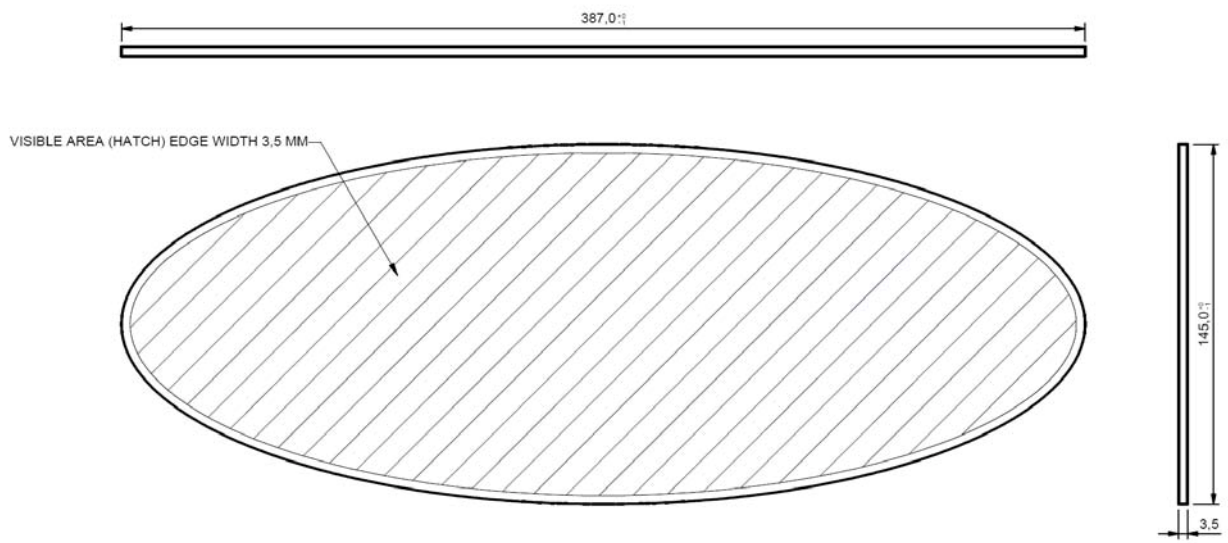
**Fig. 2 Led positions for led's always on**

Led 21 and led22 will also lit. After 5 seconds all led's will turn on at minimum intensity. The intensity can be changed by clicking the intensity button maximum 7 times on which the maximum intensity level is reached. Turning off this mode is done by clicking the intensity button until led 14 will lit. Now press another time to switch to Led 29 and 30 on. This indicates that after 5 seconds normal pattern operation will resume.

### 4. Xenon Led Topper Dimensions (base not included)



### 4.1 Inlay Dimensions



**Inlay Dimension**  
**Part number: 104-0701**



## 5. Installation







***Important:*** Shut-off the power from the host machine until any installation work is completed.

Power supply must be 12VDC, 2Amp.

### 5.1 Connection

Wire color	Description	Pin	
Orange	Power 12Vdc	1	2 Pole Connector
Black	Power Ground	2	
Black	Common Tower light	1	4 Pole Connector
Yellow	Lamp 2nd from bottom	2	
White	Lamp bottom	3	
Blue	Lamp 3th from bottom	4	
Braided strap	Earth bonding strap		Ring Term. 4mm

**Table 1: Connection**

Topper connector type	Machine connector type
Molex Male  03-09-2022	Molex Female  03-09-1022
 03-09-2049	 03-09-1049
 02-09-2118	 02-09-1118

**Table 2: Connector type**

### 5.2 Lamp

The following lamp type is used in the topper unit:



**Figure 1: Dulux S/E Lamp 11W/827 (-9904-11)**

## 6. Technical specifications

### 6.1 Electrical ratings

Parameter	Value	Units
Power Supply	12 +/- 10%	Vdc
Current consumption	1.5	A
Image refresh rate	63	Hz
Intensity levels	8	

**Table 3: Technical specifications**

### 7. Schematic diagram

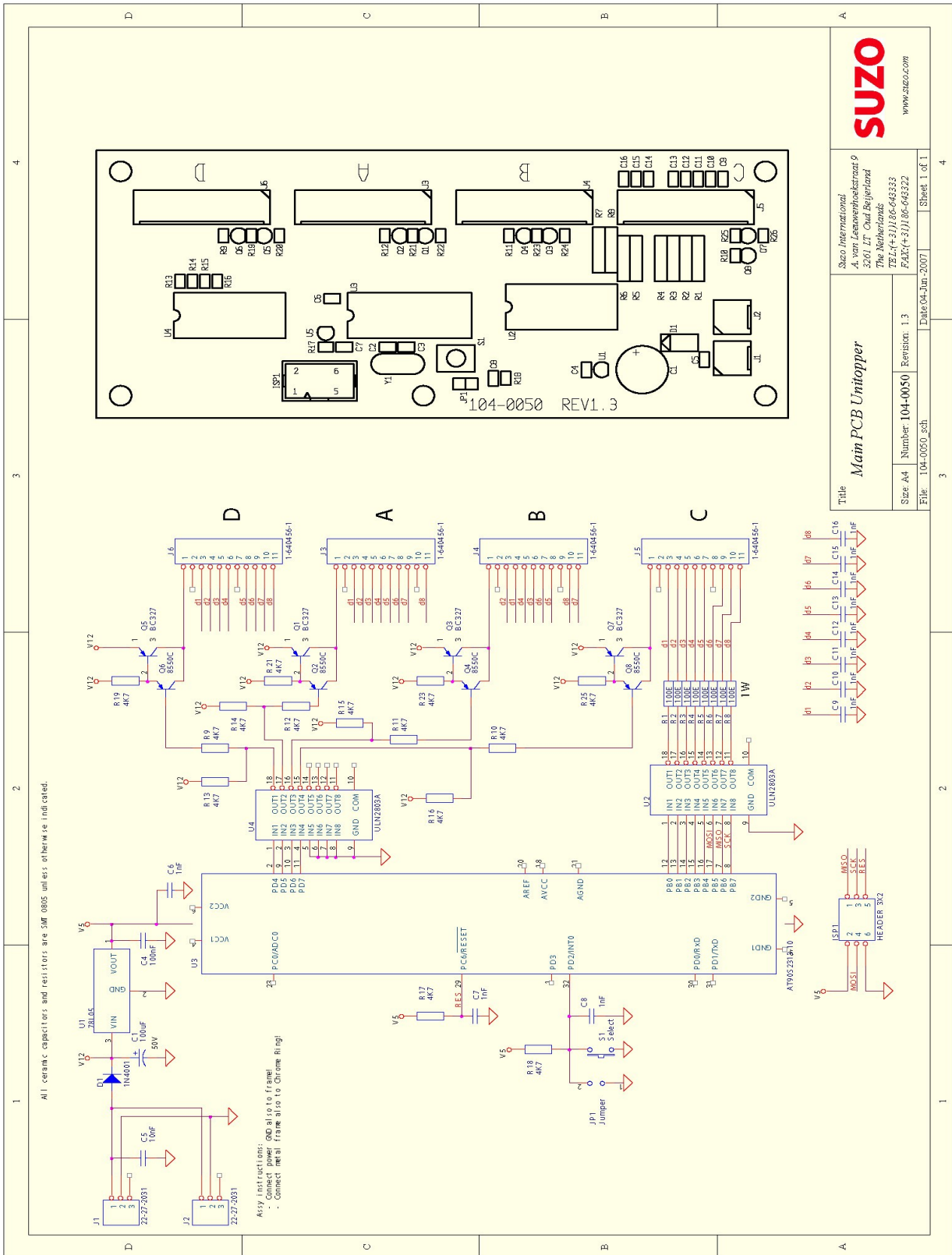


Figure 2: Schematic and Layout