MEDUSE
DESIGN

CHAMELEON LIGHT MODULE USER MANUAL

The Chameleon lamp was designed to implement advanced high-brightness LED technologies found mainly in advertising billboard screens. A chip controlled optical synthesis system offers user-friendly operation and a limitless number of shades in full scale of the color spectrum. CHAMELEON has plenty of functionality options divided into four operational modes. Chameleon lamps are assembled from electronic components supplied by renowned manufacturers, including high-brightness LEDs with extraordinary service life (48,000 hours of extreme use).

LED-Module front side:

supervisory LED
AUDIO MIC
infraport

LED-Modul back side

AUDIO INPUT
DC IN

2xAAA

remote control

power supply

2,5m Stereo Cable jack3,5mm

5m Stereo cable jack3,5mm

Adapter jack3,5-6.3mm
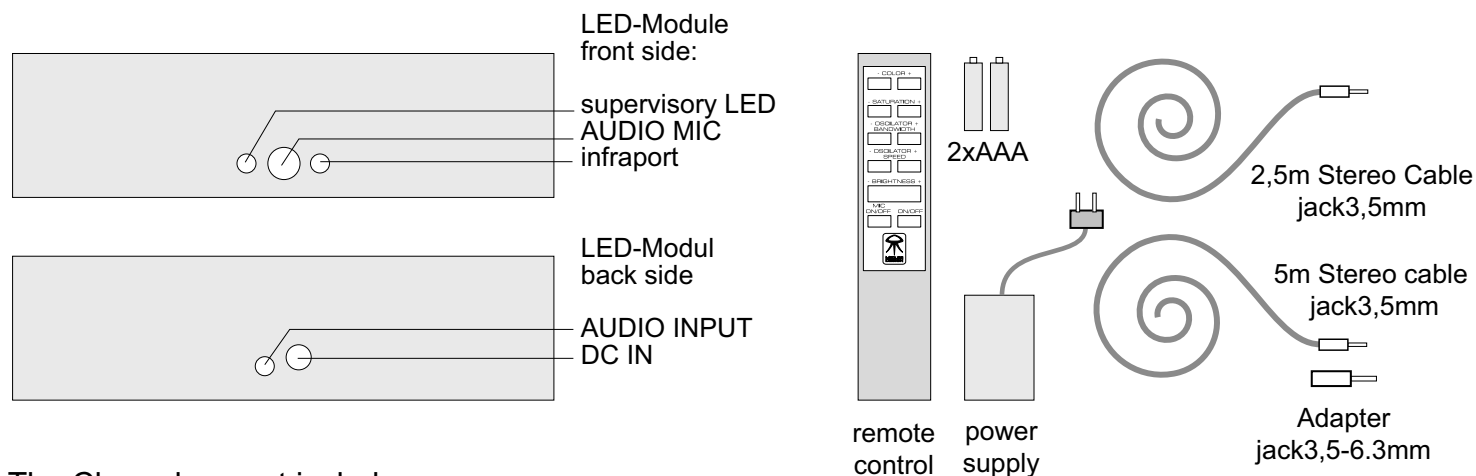
The Chameleon set includes:

- a stainless steel LED module
- a remote control (requires two AAA batteries - micro AAA)
- CHAMELEON 12 V power supply (Never use any other power supply!). First to be connected with LED module than plugged into a 230V socket!
- audio cables to connect the lamp with source of audio signal (3.5mm jack stereo - cable, M/M, 2.5m + 3.5mm stereo jack - extension cable, M/F, 5m + 3.5mm jack to 6.3mm adapter)

Using the remote control (RC) : general information

- All modes and features of the CHAMELEON lamp (including turning the lamp on and off) are activated and set using the supplied remote control .
- Each parameter has its own operational range (from min. to max. value) divided into a scale, each parameter having different scale range. Generally, every feature is adjusted using two buttons that scroll up and down the scale in predefined steps.
- In the stainless corpus of the LED module there is a supervisory LED, which flashes when you press any button of the remote control. When scrolling between minimum and maximum of the setting range, the supervisory LED lights up only for approx. 0.5 sec. When you reach the MINIMUM or MAXIMUM value assigned for respective setting the supervisory LED lets you know by remaining on longer (approx. 2 sec).
- The supervisory LED is bi-color, so when you scroll up the scale of a respective parameter it flashes green, when scrolling down the scale it flashes red.
- When the supervisory LED does not react to the remote control operation even thou the power supply is on, it may be necessary to replace the batteries in the RC.
- In case you want move up and down the scale faster, keep the respective button pressed and the scrolling will speed up. This fast scroll (see bellow) will stop when you release the button (or when the parameter reaches minimum or maximum of the scale).

Recommendations and tips

- When using CHAMELEON with MIRAGE and MIRAGE GRANDE pipes we recommend you don't color water in the pipe corpus with blue dye, because the color would act as a spectral filter and would radically limit the color scale of the lamp. On the other hand we recommend using yellow dye, which creates very impressive effects because some color and light settings of the lamp may enhance the difference between color of water in the pipe's corpus and in its glass bottom stand.
- The lamp has four mounting holes introduced with versatility of application in mind. This opens ways to very original interior lighting solution.
- With one remote control (that reaches up to 15 meters) you can operate as many CHAMELEON modules as you like.
- You can operate the module from behind glass and other transparent materials; the signal from the remote control transmits through them.

BASIC MODE

When setting the lamp in BASIC MODE you choose one specific color of the light from the whole color spectrum. The setting is very easy and has three steps: first you pick the color ("color" buttons), then you set color saturation ("saturation" buttons) and finally you tune overall brightness ("brightness" buttons) of light.

number of available steps
[fast scroll]
(operational range)
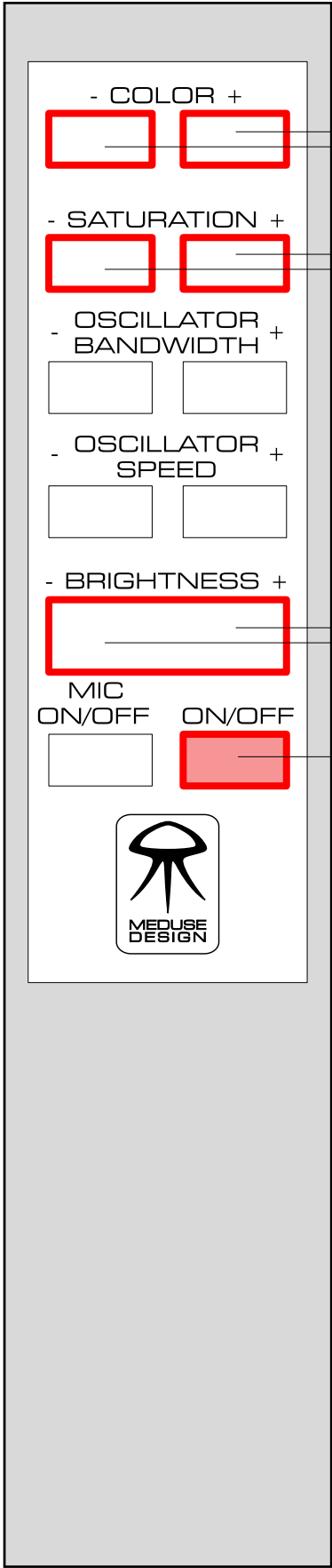
- COLOR +

0-255 [3x]
(0°-360°)

Color
Smoothly changes color of light continuously scrolling all through the color spectrum.

- SATURATION +

0-7
(0%-100%)

Saturation
Sets color saturation
Step 0 = saturation 0% = white light
Step 7 = saturation 100% = the deepest shades of the color spectrum

- OSCILLATOR +
BANDWIDTH

- OSCILLATOR +
SPEED

- BRIGHTNESS +

0-199 [5x]
(0%-100%)

Brightness
Adjusts brightness of the light

MIC
ON/OFF   ON/OFF

Switching the lamp On / Off
When switching off, the lamp automatically stores the last user setting of the color, saturation and brightness. When switching on again it automatically recalls the settings. The data remain stored even when switching to another MODE and are automatically recalled when returning to the BASIC MODE.

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120°   60°

+ saturation -

100%   0%
100%

+ brightness -

180°

0°
+
color
-

0%

240°   300°
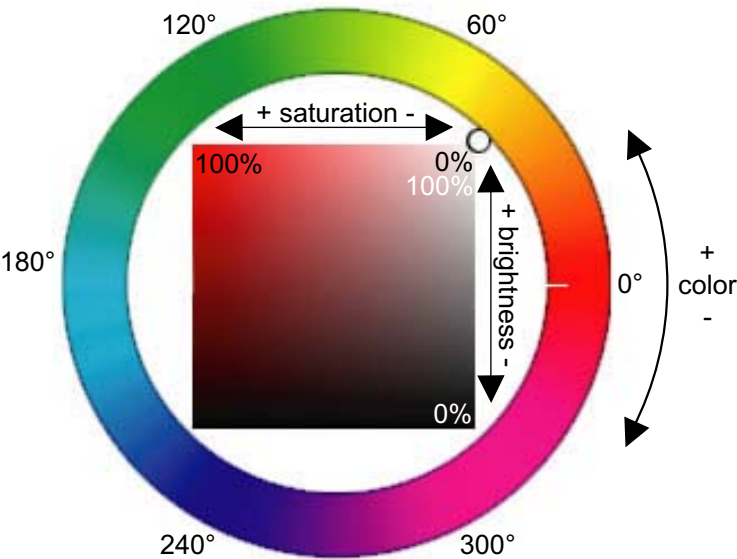
OSCILLATION MODE

This mode lets you define specific color bandwidth. All colors within this bandwidth will change and blend in user defined speed. When user chooses and sets the initial color, it becomes a zero point of the oscillation that goes running through colors in both directions through the color spectrum within the selected bandwidth. The zero point is kept in the middle of the bandwidth and colors circulate in cycles until the setting is changed.

Turning the mode on/off:
By changing "oscillator speed" to any value higher than zero

number of available steps
[fast scroll]
(operational range)
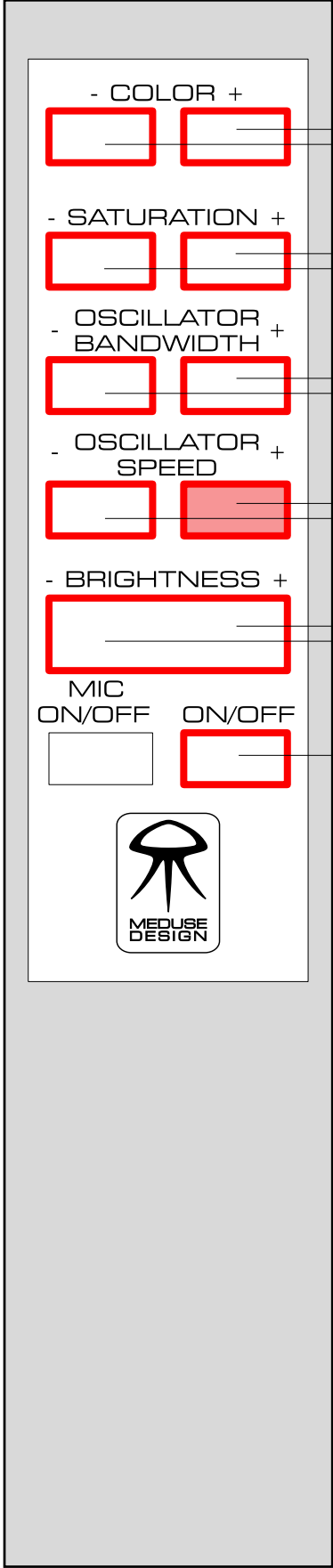
- COLOR +

0-255 [3x]
(0°-360°)

Color
Scrolling smoothly all through the color spectrum you set the initial color, the starting point around which the selected bandwidth of colors will oscillate.

- SATURATION +

0-7
(0%-100%)

Saturation
Sets color saturation
step 0 = saturation 0% = white light
step 7 = saturation 100% = the deepest shades of the color spectrum

- OSCILLATOR BANDWIDTH +

0-127 [5x]
(0°-360°)

Oscillator bandwidth
Sets the bandwidth of the color spectrum that oscillates
step 0 = full color spectrum
step 1 = turns on the FIRE MODE (see FIRE MODE section)
steps 2 to 127 (max.) linearly increase the bandwidth of the color spectrum from approx. 6° to full 360°.

- OSCILLATOR SPEED +

0-12
(0%-100%)

Oscillator speed
Adjusts the speed of selected color bandwidth oscillation
Length of an oscillation cycle at each step
Values refer to the maximal oscillation bandwidth (steps 127 and 0)

Step	0	1	2	3	4	5	6	7	8	9	10	11	12
Cycle length	static mode	20min	10min	5min	4min	3min	2min	1min	50sec	40sec	30sec	20sec	10sec

step 0 = static mode - selected bandwidth of color spectrum does not oscillate
step 1 = the slowest circulation - selected color will return in 20 minutes
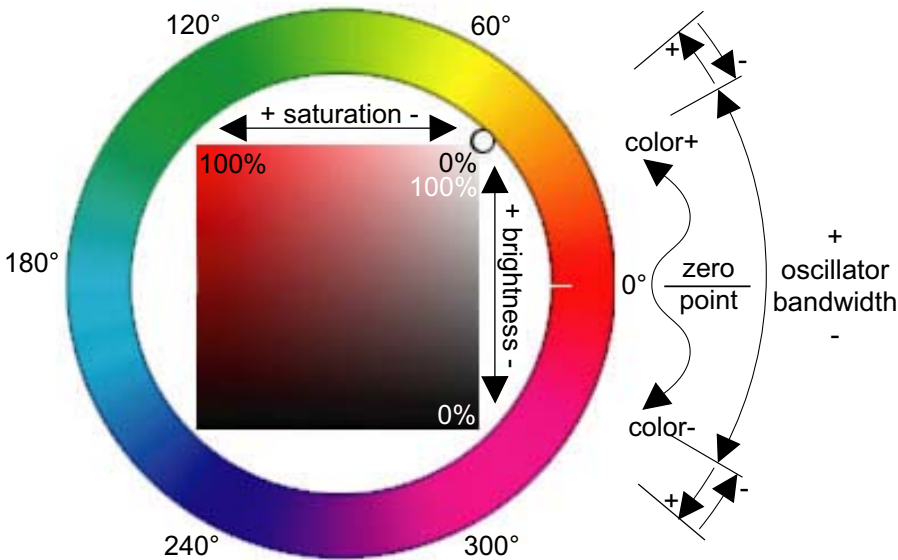**step 12** = the fastest circulation - selected color will return in 10 seconds

- BRIGHTNESS +

0-199 [5x]
(0%-100%)

Brightness
Adjusts brightness of the light

MIC ON/OFF   ON/OFF

Switching the lamp On / Off
When switching off, the lamp automatically stores the last user setting of all the OSCILATION MODE parameters. When switching on again or when switching to OSCILATION from another MODE it automatically recalls all the settings.

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120°   60°

+ saturation -

100%   0%
100%

180°

+ brightness -

100%

0°   zero point

color+

+ oscillator bandwidth -

0%

240°   300°

color-

"FIRE" MODE

The mode imitates visual effects of glowing fire. Adjusting a few parameters you can customize your "own" burning: speed and swing of "flame" flickering, overall brightness and color.

To make the burning effect even more realistic, all processes are based on random data generation and the fire you get is never the same. Setting parameters mentioned above adjusts the look and feel of the light; the result is completely up to user's personal preference and taste.

Turning the mode on/off:

By changing "oscillator bandwidth" value from zero to one (does not work in reverse, when scrolling down from 2 to 1). That also changes the parameters assigned to the remote control buttons as follows.

number of available steps
[fast scroll]
(operational range)

- COLOR +

- SATURATION +

0-7
(0%-100%)

Saturation
Saturation sets depth of light modulation - minimal and maximal "size of flames". At step 1 there will be just a very slight light modulation; the burning will be very mild. Step 7 brings maximum light modulation with very deep and distinct changes in burning.

- OSCILLATOR BANDWIDTH +

- OSCILLATOR SPEED +

0-12
(0%-100%)

Oscillator speed
Adjusts the rate of changes in light modulation. With step 1 the frequency of brightness level oscillation is low, the "flame flickering" is slow. The oscillation frequency at step 7 generates faster changes and faster flickering.

- BRIGHTNESS +

0-199 [5x]
(0%-100%)

Brightness
Adjusts brightness of the light

MIC ON/OFF   ON/OFF

Switching the lamp on/off
When switching off, the lamp automatically stores the last user setting of all the FIRE MODE parameters. When switching on again or when switching to FIRE from another MODE it automatically recalls all the settings.

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120°   60°

100%

+ brightness -

180°

0°   + saturation -

0%

240°   300°

AUDIO MODE

The AUDIO MODE offers an unprecedented experience of enchanting play of colors that sensitively reacts to your favorite music, while you just sit back and enjoy your pipe.

The AUDIO MODE works with two different sources of audio signal for the operation unit of the lamp:

1) AUDIO-MIC

situation, when the signal comes from a built in microphone located on the stainless lamp body. The lamp directly interacts with all sounds from its surrounding. The microphone used is very sensitive and will capture even quite remote sounds.

2) AUDIO-INPUT

situation, when the signal comes via audio cable (included in the CHAMELEON lamp set). The cable is 2.5 m long and has a stereo 3.5mm jack on both ends. In case the sound device is far from the lamp you can use a 5m extension stereo jack/plug cable (also included).

! When there is no audio cable plugged into the "AUDIO INPUT" plug (found on the stainless body of the lamp), activating AUDIO MODE automatically switches lamp to AUDIO-MIC setting. Plugging the audio jack in automatically switches the lamp to the AUDIO-INPUT setting, which turns the microphone off.

Note.: Only when using "audio-input" absolutely precise response of the lamp to the music is guaranteed. Otherwise the audio signal gets acoustically blurred and is interfered by sounds and noise from around the lamp, which are very likely to be picked by the build-in microphone. It is advisable to connect the lamp to a headphone output of your sound device (player). If there is only a 6,3mm socket headphone output, use a 3.5mm to 6.3mm jack adapter (included).
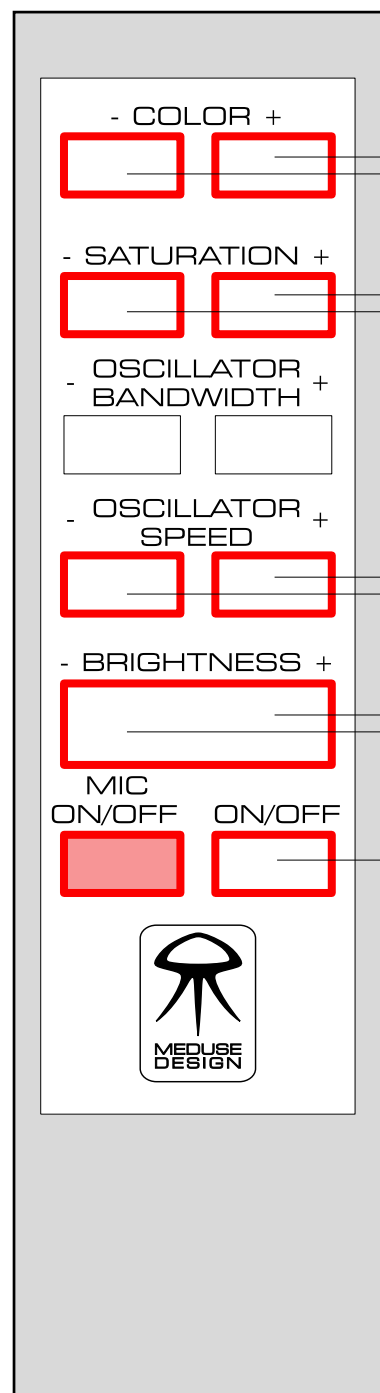
Turning the mode on/off:
By pressing the "MIC on/off" button

number of available steps
[fast scroll]
(operational range)

- COLOR +   0-1
                 (0 und 1)

- SATURATION +   0-7
                 (0%-100%)

- OSCILLATOR BANDWIDTH +

- OSCILLATOR SPEED +   0-7
                       (0-7)

- BRIGHTNESS +   0-199 [5x]
                 (0%-100%)

MIC ON/OFF   ON/OFF

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Color
Lamp's audio system analyses input audio signal and its chip assigns colors to the basic frequency bands (bass - mids - highs).

Chameleon is capable of working with two music-to-color schemes

	basic scheme	reversed scheme
bass	blue	red
mids	green	green
highs	red	blue

Color equalizer ("saturation")
Digital audio signal processing opens many ways to adjust color-music interference. With a color equalizer it is possible to enhance or suppress the reaction of the lamp to particular frequency bands of the audio signal.

Step	bass%	mids%	highs%	resulting change in sound and color
0	140 %	12 %	100 %	Bass enhanced, mids suppressed: the lamp accents color assigned to the bass frequency range.
1	120 %	25 %	100 %	
2	110 %	50 %	100 %	
3	**100 %**	**100 %**	**100 %**	Amount of bass, mids and highs is in equal proportion.
4	100 %	50 %	110 %	Highs enhanced, mids suppressed: the lamp accents color assigned to the highs frequency range.
5	100 %	25 %	120 %	
6	100 %	25 %	130 %	
7	110 %	12 %	140 %	

Speed ("oscillator speed")
This parameter adjusts reaction time of the color processing to the audio signal. The lamp can react very slowly and the resulting effect is rather meditative. Maximum setting results in almost stroboscopic effects.

Recommended setting for various musical genres:

Step	reaktion	musical genres:
0	fast	Dance Music (Trance, Jungle, Techno, Drum and Bass, House ...)
1		
2		
3		
4		Pop, Rock, R & B, Jazz, ...
5		
6		Classical Music, Chill out, ambient …
7	slow	

Brightness
Adjusts brightness of the light.

Switching the lamp on/off
When switching off, the lamp automatically stores the last user setting of all the AUDIO MODE parameters (except for the color equalizer). When switching on again it automatically recalls the settings, with the color equalizer set to step 3.