# hal:on by LEDBLADE

User manual for

sw. v1.1

# Thank you for purchasing hal:on!
## The RGBW LED Halo Set

⚠ Please read the user manual carefully before using hal:on. If you have any further questions, please contact your LEDBLADE distributor!

**For further information, please contact:**

info@ledblade.com

Manufacturer:

**Nádorliget Invest Kft.**

Kelenföldi út 2.

H-1115 Budapest, HUNGARY

www.ledblade.com

info@ledblade.com

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# Contents

# General description of the Halo Set

## Description

The hal:on LED Halo consists of 2x73 (146) RGBW pixels in total, with 4000K white color temperature.

The hal:on set is available in different configurations:

### 1. hal:on basic set for the 'P1' retro lamp:

*contains the following:*
- 1 x LED Halo (2 semi-LED-circle),
- 2 sets x fixing clamps (4),
- 1 x hal:on controller,
- 1 x gibbon for P1,
- 1 x power cable for controller,
- 1 x connecting cable to 'P1' luminaire.

### 2. hal:on mini set for 'p1 mini':

*contains the following:*
- 1 x LED Halo (2 semi-LED-circle),
- 1 set x fixing clamps (4),
- 1 x hal:on controller,
- 1 x gibbon for P1 mini,
- 1 x power cable for controller,
- 1 x connecting cable to 'P1 mini' luminaire.

### 3. hal:on light set for standalone mode:

*contains the following:*
- 1 x LED Halo (2 semi-LED-circle),
- 1 x hal:on controller,
- 1 x power cable for controller,
- 1 x upper link (to connect and fix the upper half of the 2 LED semi-cirles),
- 1 x lower stand (to connect and fix the lower half of the 2 LED semi-circles),
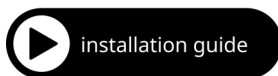- 1 x gibbon (to mount the hal:on controller onto any available stand).

**The above sets are also available in add-on configurations as extensions to any of the above sets.**

⚠️ The hal:on set is designed for indoor usage!

# How to install the hal:on LED Halo set

**Access and watch the installation guide videos for the different hal:on sets by scanning the following QR Code:**



▶ installation guide

### 1. The Gibbon

Mount the gibbon of your hal:on set with the removed 4 screws of the P1/P1 mini's case. In light set mode, first assemble the LED ring and connect the gibbon to the assembled lower stand fixed on your layar with the layar's top screw.



**Gibbon mounted on P1's case / Speaker Stand / P1 mini's case**

### 2. The hal:on controller

Attach the hal:on controller's plate into and through the gibbon and fix with the black handscrew on the top.

### 3. The hal:on led ring

For the hal:on basic set for P1 & P1 mini set:
Join the 2 half segments together and attach the LED ring
to the frontal outer frame of the P1 or P1 mini luminaire using
the 4 fixing clamps.
A clamp screw is already attached on the back side of one of
the semi-circles. Remove a screw from one of the 4 clamps and
replace it with the one attached to the segment.

In case of 'P1' luminaire, make sure, that two opposite clamps
should face inwards and the other pair of clamps should face
outwards of the ring.
For easier assembly, start with the clamps facing inwards at first,
followed by the clamps facing outwards.

In case of using a 'P1 mini' lamp, it's easier to tilt the 'P1 mini'
with 90° into horizontal position before attaching the LED ring.
Make sure, that all 4 clamps should face inwards of the ring in
uniform allignment towards the P1 mini's frame.
When attaching the clamps to the 'P1''s or 'P1 mini''s frontal
frame, be careful not to apply extra strength or excessive force
to click mount the clamps of the LED ring, otherwise the clamps
may break.

For the 'hal:on light set', use the upper and lower connecting
parts to join the 2 half LED segments. When connected, mount
the lower stand (connecting link) and thus the assembled LED
ring to your layar by using its top fixing screw.

## Safety points

You can find safety hole on the halon's case and on the gibbon.
Please everytime use a safety wire when instaling the unit!

## Basics

Let's see the basics of the hal:on RGBW LED Halo Set:

### Power Connectors

The input voltage is 100 - 240V @50-60Hz, maximum power consumption: 75W. Please use at least 3x1,5mm$^2$ cable with standard Neutrik powerCON connector for power connection and for daisy chain.

Connector Blue: Power input

Connector White: Daisy chain to the 'P1' or 'P1 mini'

> ⚠ **There's no dedicated power switch on the device, this function is served by the Neutrik connector. Make sure that the power connectors are easily accessible to turn off the unit for cases of unforseen emergency situations! Make sure that the power source is protected against overload!**

### Input and Output connectors

DMX input 5-pin: standard DMX512, RDM not supported, pixel mode not supported

DMX output 5-pin: standard DMX512 output to 'P1' and 'P1 mini'

Halon output 4-pin: direct 5V and SPI out to the LED ring

### Network connectors

It has a separated network switch inside with communication feedback on the top of the connectors.

Standard RJ45 connectors: ArtNet 4.0 & ArtNet RDM supported.

# Details

## Networking

The signal communication is based on standard Ethernet communication and runs through a 100/1000 switch powered separately. Use cat5e or higher ranked cable for dasy chain and standard connectors for the best result. We suggest maximum 10 units in chain, use a standard gigabit switch to expand the networking.

> ⚠ **In every case we suggest to use ArtNet Unicast / when send data directly to exact IP's/, to avoid the package lost and process lag on the network when use a lot of parameters.**

## Handling

You can find a display and 5 buttons on the front:
4 buttons for the navigation and the middle one is the 'Enter'.

In Main Menu, you can easily modify a lot of setup parameters, such as:

- Pixel controlled or fixture mode

- Full manual control

- Test animations

- Networking setup

## ArtNet

The device communication based on the Artistic License ArtNet 4 standards. If you want to know more about ArtNet4, please visit: https://art-net.org.uk/

> ⚠ **To get discoverable hal:on nodes on the network, use the 255.0.0.0 subnet mask.**

## Firmware update

It has a fail safe updater feature, but take care of the power and network connections during the update!

1. Turn off the unit.
2. Connect to a DHCP based ethernet network with internet connection.
3. Push and hold the 'down' button.
4. Turn on the unit.
5. Check the display screen for details.
6. You can see the updating progress bar on the LED ring when firmware update starts.
7. The unit will restart.
8. Apply (press) 'Reset Config' in 'Menu'.

Firmware update complete.

## Main screen details

The screen turns off automatically after 30 seconds.
By pushing any buttons, it will turn on.

- SW: software version of the unit

- M: mode indicator /Fixture, Direct/

- IP: IP address of the unit

- NM: Network mask of the unit

- Connection feedbacks

SRV-NO: No ArtNet server connection

SRV-OK: ArtNet server discovered on the network

STREAM: incoming ArtNet stream

DMX-OK: incoming DMX512 signal on the XLR

# hal:on Menu Map

## Halon Menu map

| | | | | | |
|---|---|---|---|---|---|
| **Main** | **Network** | **IP:** | 255.255.255.255 | | |
| | | **Mask:** | 255.255.255.255 | | |
| | **Personality** | **Mode:** | **Mode 0-Direct** | **Halo config** | **Address** → 1-512 |
| | | | | | **Universe** → 64k |
| | | | | **Lamp config** | **Address** → Default (146RGBW+7dimmer) |
| | | | | | Manual |
| | | | | | **Address** → 1-512 |
| | | | | | **Universe** → 64k |
| | | | **Mode 1-Fixture** | **Fixture config** | **Address** → 1-512 |
| | | | | | **Universe** → 64k |
| | | | *(lamp 7ch +9ch halo ring control)* | | |
| | | | *Set the PI's dmx add. 1!* | | |
| | **Reset Config** | Reset unit configuration | | | |
| | **Manual** | Enable | Yes | | |
| | | | No | | |
| | | Intensity | 0-255 | | |
| | | Strobe | 0-255 | | |
| | | FX Red | 0-255 | | |
| | | FX Green | 0-255 | | |
| | | FX Blue | 0-255 | | |
| | | FX White | 0-255 | | |
| | | FX select | 0-255 | | |
| | | FX speed | 0-255 | | |
| | | FX backgrnd Red | 0-255 | | |
| | | FX backgrnd Green | 0-255 | | |
| | | FX backgrnd Blue | 0-255 | | |
| | | FX backgrnd White | 0-255 | | |
| | | Prism | 0-255 | not implemented, fix in 0.8 | |
| | | Prism rot | 0-255 | not implemented, fix in 0.8 | |

# hal:on Direct Mode DMX Sheet

| HALON DMX CHART | | | |
|---|---|---|---|
| | | | |

| **Halon direct (pixelmap) mode, Default P1 layout** | | | |
|---|---|---|---|
| **pixel** | **Mode0 - Direct mode** | <u>uni.ch</u> | **Default** |
| 1 | 1. RGBW | 1.1-4 | |
| 2 | 2. RGBW | 1.5-8 | |
| 128 | 128. RGBW | 1.509-512 | |
| ... | ... | .... | |
| 129 | 129. RGBW | 2.1-4 | |
| ... | ... | .... | |
| 146 | 146. RGBW | 2.69-72 | |
| P1 | Dimm1 | 2.73 | 0-255 |
| P1 | Dimm2 | 2.74 | 0-255 |
| P1 | Dimm3 | 2.75 | 0-255 |
| P1 | Dimm4 | 2.76 | 0-255 |
| P1 | Dimm5 | 2.77 | 0-255 |
| P1 | Dimm6 | 2.78 | 0-255 |
| P1 | Dimm7 | 2.79 | 0-255 |

| **Halon direct (pixelmap) mode, User defined P1 address** | | | |
|---|---|---|---|
| | **Mode0 - Direct mode** | ch | **Manual** |
| 1 | 1. RGBW | 1.1-4 | |
| 2 | 2. RGBW | 1.5-8 | |
| 128 | 128. RGBW | 1.509-512 | |
| ... | ... | .... | |
| 129 | 129. RGBW | 2.1-4 | |
| ... | ... | .... | |
| 146 | 146. RGBW | 2.69-72 | |
| P1 | Dimm1 | us.def | 0-255 |
| P1 | Dimm2 | us.def +1 | 0-255 |
| P1 | Dimm3 | us.def +2 | 0-255 |
| P1 | Dimm4 | us.def +3 | 0-255 |
| P1 | Dimm5 | us.def +4 | 0-255 |
| P1 | Dimm6 | us.def +5 | 0-255 |
| P1 | Dimm7 | us.def +6 | 0-255 |

# hal:on Fixture Mode DMX Sheet

| Ch no. | Halon fixture mode DMX sheet | | |
|---|---|---|---|
| | **Mode1 - Fixture mode** | | **Set the P1's dmx add. 1!** |
| 1 | Halo Dim | 0-255 | |
| 2 | Halo Strobe | 0 | open |
| | | 1-255 | strobe rate up to 100Hz |
| 3 | Halo FX Red | 0-255 | |
| 4 | Halo FX Green | 0-255 | |
| 5 | Halo FX Blue | 0-255 | |
| 6 | Halo FX White | 0-255 | |
| 7 | Halo FX select | 0-3 | fx1 |
| | | 4-7 | fx2 |
| | | 8-11 | fx3 |
| | | ... | ... |
| | | 252-255 | fx64 |
| 8 | Halo fx speed | 0-255 | 0-118 backwards speed |
| | | | 123 -133 stop |
| | | | 138-255 forward speed |
| 9 | FX backgrnd Red | 0-255 | |
| 10 | FX backgrnd Green | 0-255 | |
| 11 | FX backgrnd Blue | 0-255 | |
| 12 | FX backgrnd White | 0-255 | |
| 13 | Prism | 0-19 | open |
| | | 20-39 | prism1 |
| | | 40-59 | prism2 |
| | | 60-79 | prism3 |
| | | 80-255 | prism4 |
| 14 | Prism rot | | 0-118 backwards speed |
| | | | 123 -133 stop |
| | | | 138-255 forward speed |
| 15 | P1 - Dimm1 | 0-255 | |
| 16 | P1 - Dimm2 | 0-255 | |
| 17 | P1 - Dimm3 | 0-255 | |
| 18 | P1 - Dimm4 | 0-255 | |
| 19 | P1 - Dimm5 | 0-255 | |
| 20 | P1 - Dimm6 | 0-255 | |
| 21 | P1 - Dimm7 | 0-255 | |

# hal:on Technical Specifications

| Dimensions | |
|---|---|
| L x W x H (hal:on controller): | 270 x 210 x 60 mm |
| Display: | 2 x 16 character, alphanumeric LCD |
| Weight: | 1500 g |
| Mounting: | QuickSnap system |
| Main input: | AC 100-240 V @50-60 Hz |
| Power: | hal:on: 75 W; max. 10A (with 'P1') |
| Operational temperature: | 0° to +40° Celsius |
| Rating: | IP20 |
| Controller's apprearance: | matte black, white texture |
| Max no. of pixels: | 2 x 73 (146 RGBW in total), 4000 K |
| Output voltage: | 5 V DC |
| Connectors: | RJ45, XLR, PowerCon in/out |
| Modes: | Fixture mode: 14 ch; Direct mode: 584 ch |
| Known control protocols: | DMX512; ArtNet |

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# LED**BLADE**

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