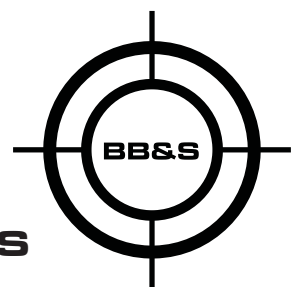




BB&S
LEDONARDO 2
USER MANUAL

BROTHER, BROTHER & SONS ApS



user manual rev.1.04

INTRO

Brother, Brother & Sons ApS

The information in this manual is subject to change without notice.

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User Manual Version: December 2011

Customer and Warranty service:

Contact your regional dealer. Contact information for your area can be found at www.brothers-sons.dk

RMA:

When returning an item please enclose

a.: Model and Serial number.

b.: A description of the problem

c.: The name of the owner of the equipment.

d.: If available please include a copy of your invoice to establish the date of sale and the beginning of the warranty period.

Disposing of this product:

Help preserve the environment! Ensure that this product is recycled at the end of its life.

This product is in compliance with the RoHS and WEEE directives.



In compliance with EMC standards:

EN 55103-1 & EN 55103-2:

EN 55022, EN 55103-1 Annex A, EN 55022, EN 61000-3-2, EN 61000-3-3, EN 55103-1

EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 55103-1

Annex B, EN 55103-1 Annex A, EN 61000-4-11

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SAFETY

Safety Notice:

It is important to read ALL safety information and instructions in this manual before installing and operating the product described.

Safety symbol used in this manual:



WARNING: Potential injury or damage to persons or product.



WARNING:

It is important to read ALL safety and installation instructions to avoid any damage to the product and potential injury to yourself and others.

This product is for professional use only and has been designed for indoor use. Exposure to moisture may cause damage to the product and will void your warranty.

This fixture is designed for use with a specific LED only. Use of any other type LED may be hazardous and may void warranty.

Do not operate the product if the ambient temperature exceeds 35°C / 95°F

Provide a minimum clearance of 0,1m (4 in.) around fans and air vents.

Do not mount on flammable surface.

Ensure that the fixture is electrically connected to ground (earth)

Only use this product if all cables, connectors and the product itself are undamaged.

Damage caused by inadequate cleaning or maintenance is not covered by the product warranty.

This is a product using High power LEDs. Do not stare directly into the LED at extended periods of time at a short distance without suitable protective eyewear. Do not look directly at the LED with optical instruments that concentrate the light output.

No matter the light source, blue light, depending on the wavelength, can be harmful to your eyes.

SERVICE:

Servicing is to be performed only by qualified personnel. Take precautions to avoid ESD damage during service.

Disconnect the power before servicing the product.

MAINTENANCE:

This product requires very little routine maintenance, if any, but has special cleaning instructions:

Disconnect fixture from power and allow it to cool for 10 min.

Vacuum or gently blow away any dust from fan blades and grills

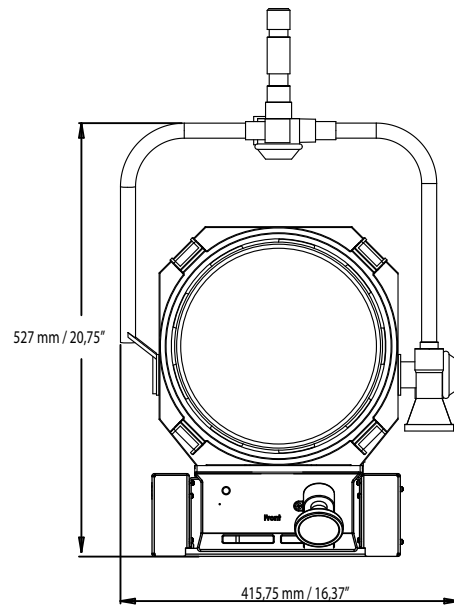
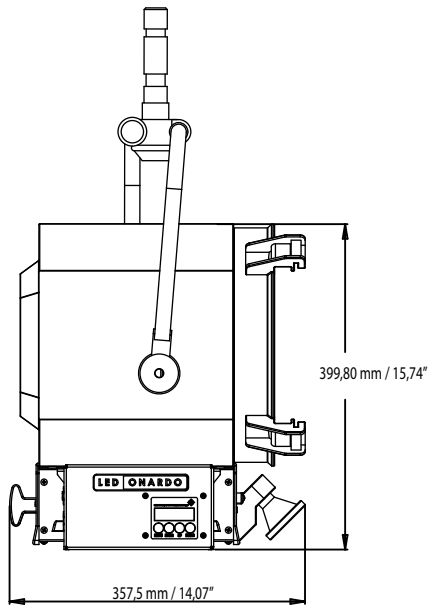
Very gently clean the LED with Isopropyl alcohol.

Clean the lenses with a soft damp cloth.

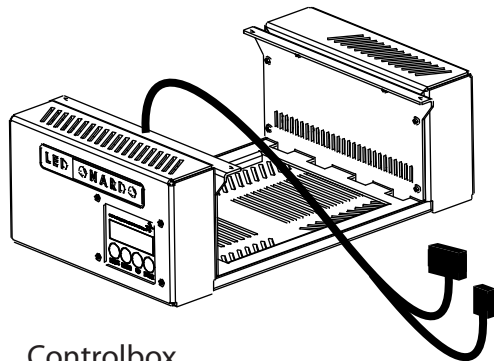
Power:

Never connect to dimmer power

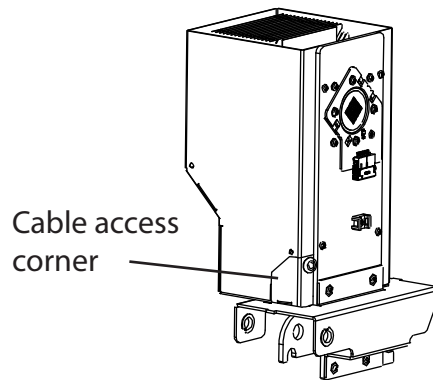
PRODUCT OVERVIEW



LEDonardo 2 - LED Light Engine



Controlbox



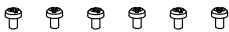
Cable access corner

Tower

6 x washers



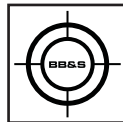
6 x Philips PH2 Screws



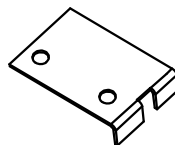
2 x Cable Ties



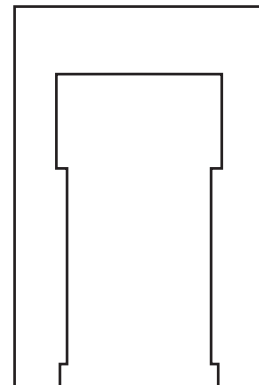
Safety Sticker



Cable Strain Relief



Air cover



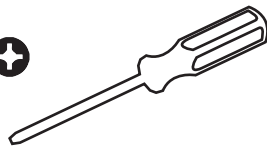
RETROFITTING



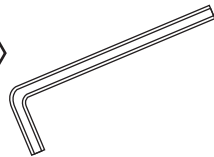
CAUTION !!

To avoid damage to equipment take electrostatic precautions when performing the conversion
Disconnect fixture from power and allow it to cool for 10 min.
Conversion should only be performed by qualified personel.

Tools needed to perform the conversion:



Phillips PH2 screwdriver



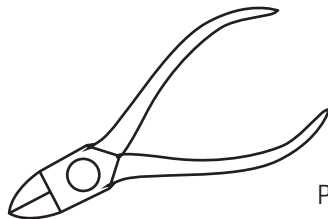
Allen/Umbraco key size 4



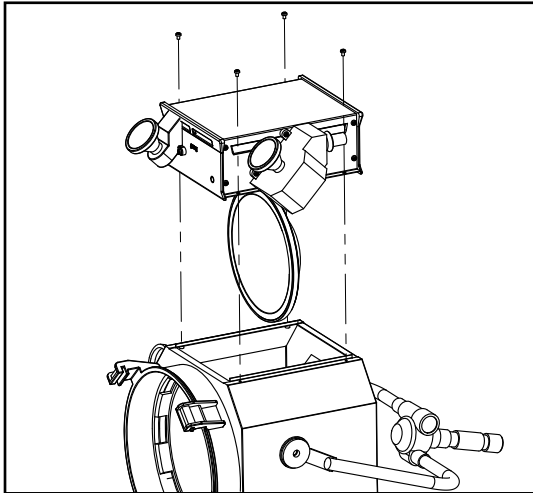
Torx screwdriver size T10



Slotted screwdriver size 3,5 - 4

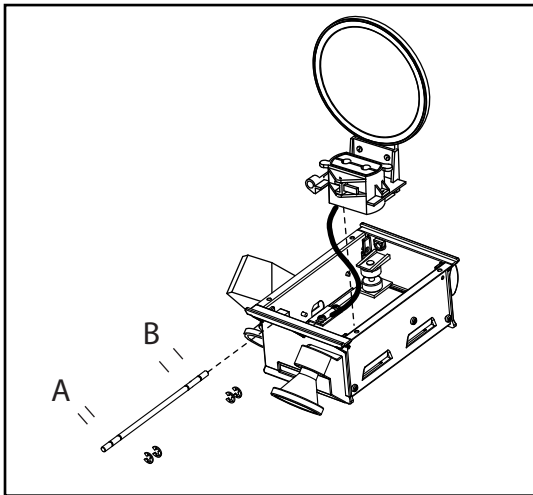


Pliers for cable ties



1

Unscrew the four screws as illustrated and remove the lamp section.



2

NOTE:

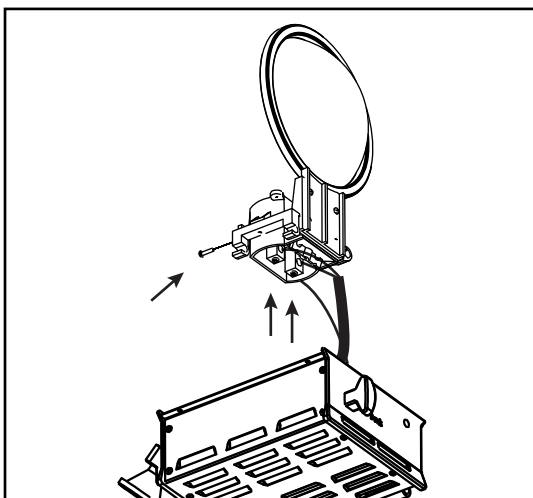
The guide bar is not symmetrical, so it is recommended to mark one end, to make sure that you remount it correctly.

Not doing so will affect the optical system.

As a rule the distance between the locking rings is smaller at the front (A) and larger in the back (B).

Using a screwdriver, remove the four locking rings on the guide bar.

Slide the guide bar out and lift up the lampsocket / reflector part. **Be careful not to loose the locking rings as you will need them later.**

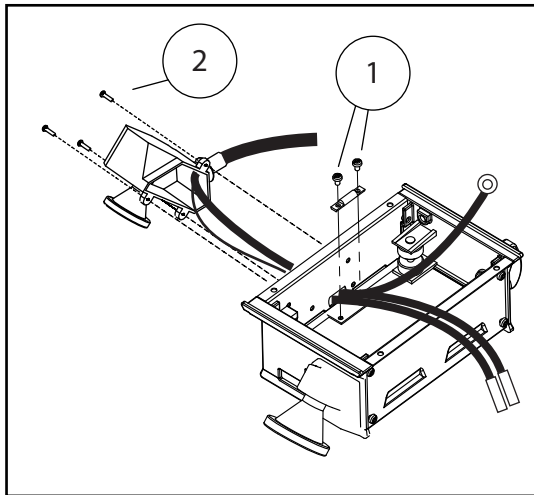


3

With the lamp socket lifted, loosen the two Umbaco screws and remove the cable from the socket.

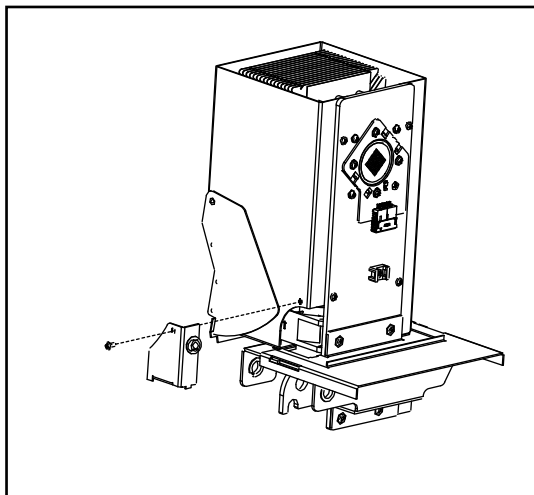
Loosen the ground wire by removing the screw.

The socket is no longer needed and we are ready to start mounting the LED Light Engine.



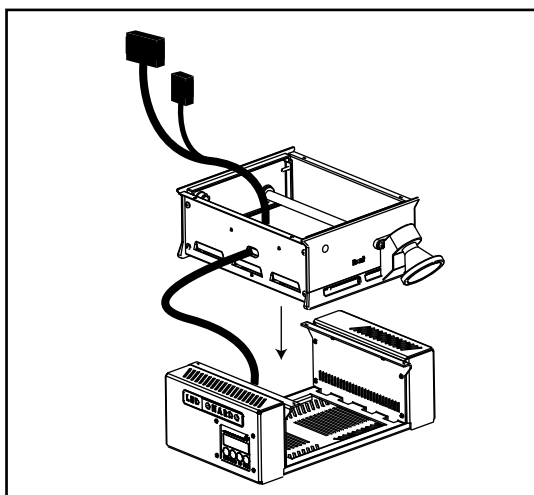
4

1. Remove the two screws holding the cable strain relief.
2. Unscrew the three screws holding the on/off switch box.
3. Remove the on/off box and the cables including all ground wires.



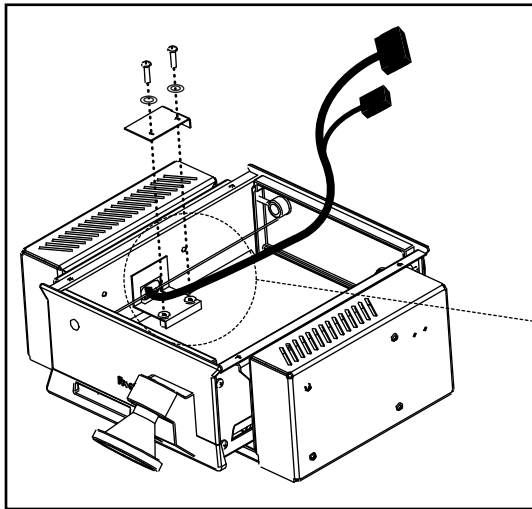
5

1. Remove the cable access corner on the Tower by unscrewing the Torx 10 screw, save the screw as you will need it later.



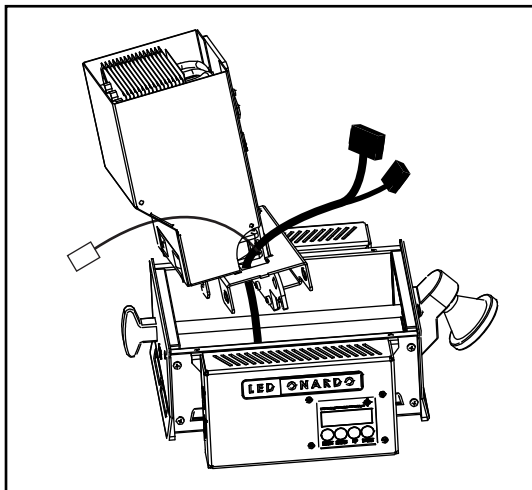
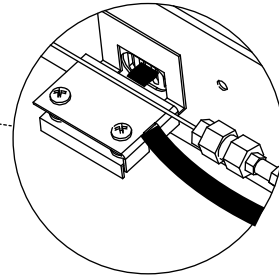
6

1. Feed the cables from the Controlbox through the cable hole in the old lamp housing.
2. Lower the old housing onto the controlbox



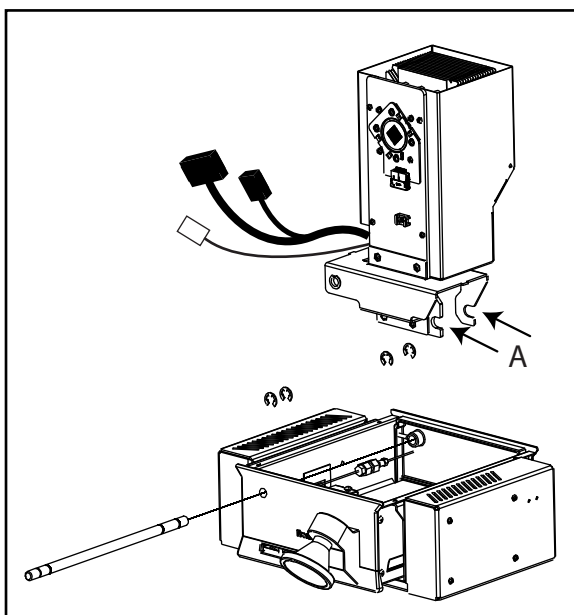
7

1. Mount the supplied cable strain relief with the supplied screws and washers, and guide the cable through as illustrated.



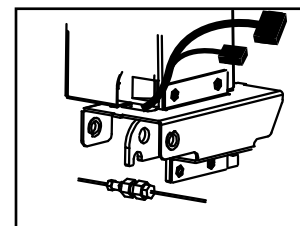
8

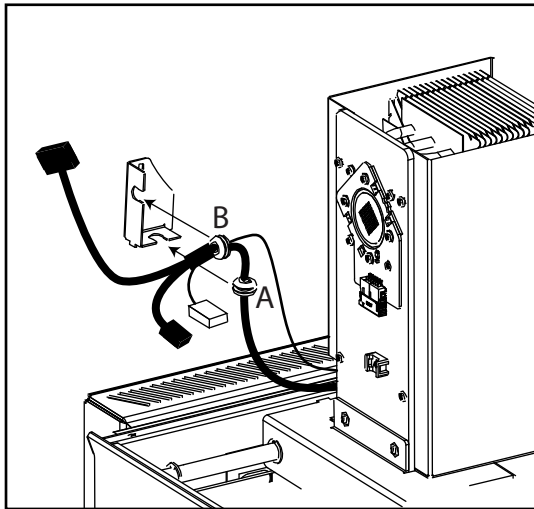
1. Feed the cable through the Tower as shown.



9

1. Place the Tower in the old housing by first hooking it on to the the unmounted guidebar using the two nothes A.
2. Lower the notch on the opposite side into the wirepulley (see the illustration below)
3. Insert the guidebar that we previously dismantled and apply the four locking rings again. Remember the orientation of the guidebar ,(short distance at front, large distance in the back).
NOTE: The cable has been partly removed from the illustration to prevent it from obscuring the view.

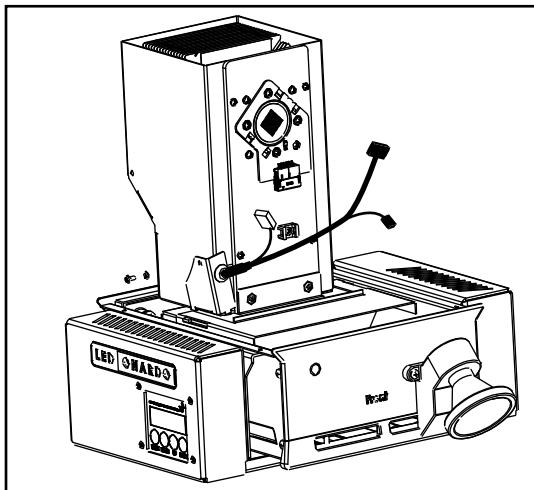




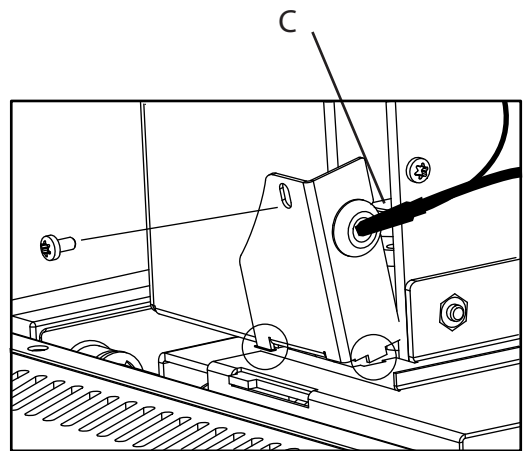
10

1. In this step we need to guide the cables from the Controlbox through the Cable access corner.
First attach grommet A, mounted, on the cable to the slot shown in the illustration. Next take the open grommet B from the cable access corner and guide both the cable from the Controlbox and the Tower fan through.

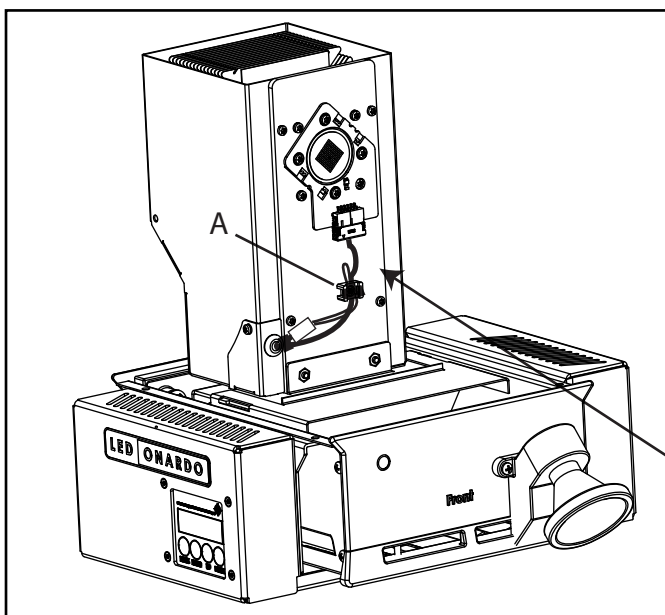
NOTE: The LED cable has a piece of heatshrink (C) mounted where the cable tube stops. This needs to be on the LED side of the grommit.



11

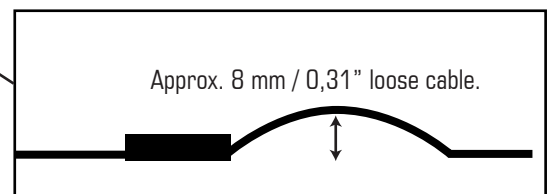


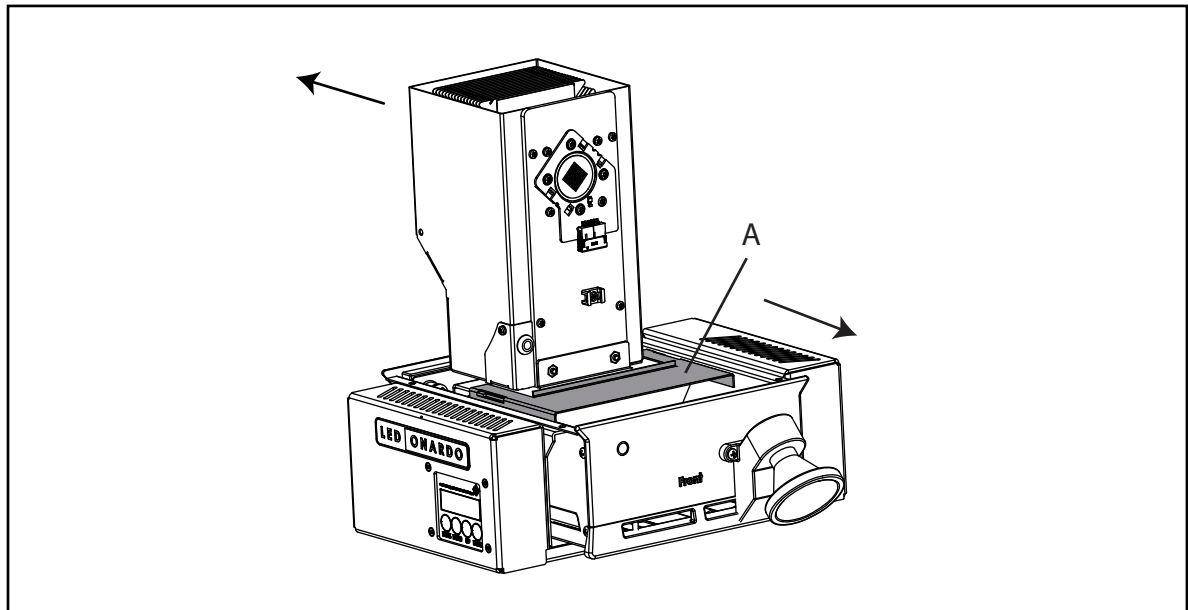
1. Mount the cable access corner with the Torx 10 screw.
When mounting, angle the corner as shown, to fit the notch on the corner into the cutout in the Controlbox.



12

1. Now gently pull the cable from the Tower fan out to tighten it.
2. Connect the LED cable and the two fancable ends.
3. Using the two supplied cable ties and the cable tie fastener (A), tie down the cables to prevent them from getting in front of the LED.
If possible, leave a small amount of excess cable on the LED side of the cable tie fastener.
This will make it easier, should you need to replace the LED.



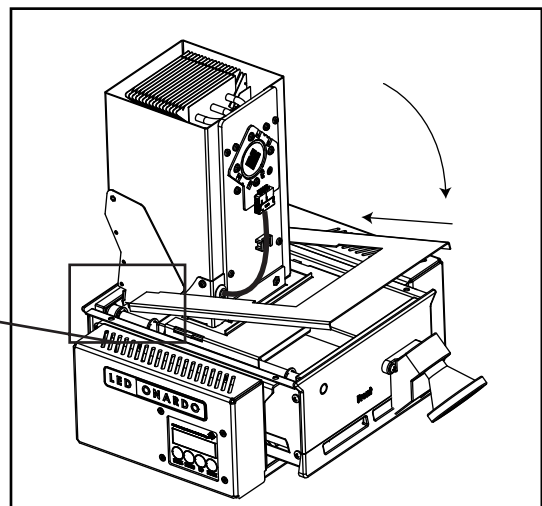
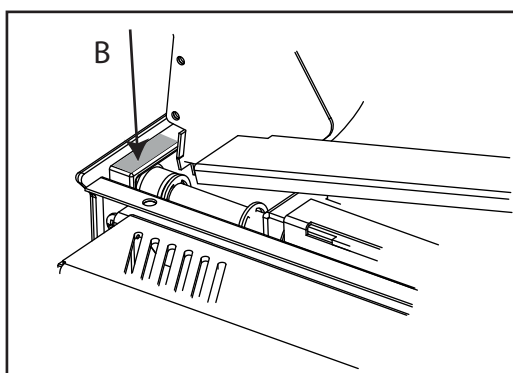


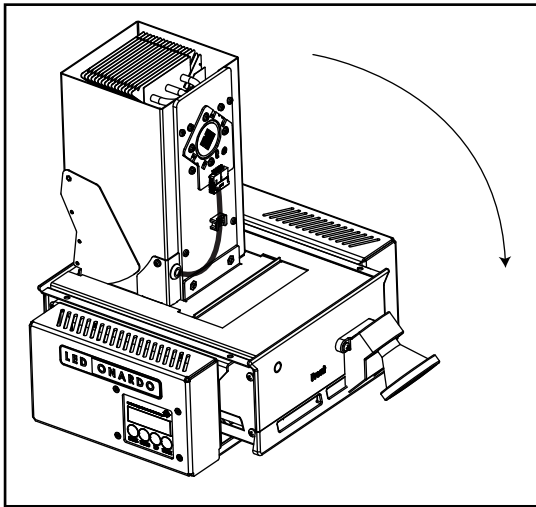
13

1. Move the Tower all the way to the back
2. Pull the sliding lid (A) towards the front.

Now its time to mount the Air cover.

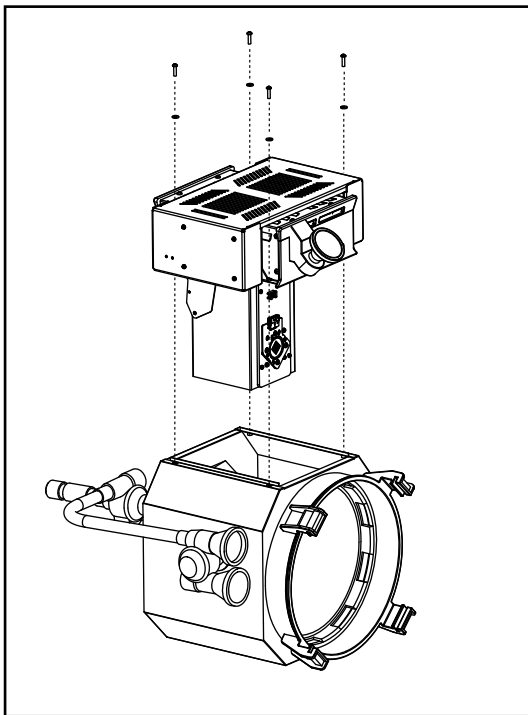
Slide it in from the front, making sure that it rests on top of the edge (B) above the Guide bar.





14

1. Carefully turn everything you have assembled up side down. Remember that the sections are not attached to each other securely yet.



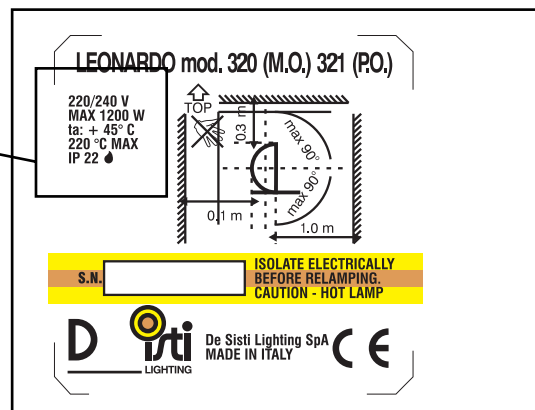
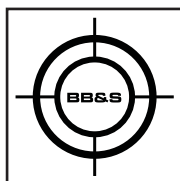
15

1. Place all the parts on bottom of the housing. Screw in the four supplied screws and washers. Now everything is attached securely.

16

1. Cover this area of the tech label on the back of the Desisti with the supplied BBS sticker, for approval purposes.

220/240 V
MAX 1200 W
ta: + 45° C
220 °C MAX
IP 22



INSTALLATION



Do not operate the product if the ambient temperature exceeds 35° C

Provide a minimum clearance of 0,1m (4 in.) around fans and air vents.

This fixture must be connected to ground.
This fixture is for indoor use only.



Remove plastic protection from the LED before applying power !

Read the “Safety” and “Specifications” chapters first.

Applying power:

Never connect to dimmer power

Make sure the local power voltage is within the range specified.
If so; connect the power cable and turn the power on.

Standalone operation:

Using the navigation buttons and display readout (refer to the “Software Menu” chapter)
navigate to Manual and set the desired intensity.
(additional operations see “Software Menu” chapter)

DMX operation:

Connect a DMX cable

Navigate to Adress mode (Addr) and set the desired adress, resolution, response, strobe,
curve settings and in Personality (PErS) set the desired Fan, No DMX and Display settings.
(refer to the “Software Menu” and “DMX Protocol” chapters)

Connect to DMX controller.
(refer to the “DMX Protocol” chapter)

Use it.

AC Power

This fixture must be connected to ground.

Electrical:

AC Power: 100 – 240 V nominal, 50/60 Hz

Powersupply: Electronic switchmode

Max power consumption: 182 w

DMX Data link

This product uses a 5-pin XLR for dmx input and output.

Use a shielded data cables.

Do not overload the daisy chain. Up to a maximum of 32 devices can be used on a single dmx chain.

DMX Channels:

1 at 8bit: Dimmer

2 at 8bit: Dimmer w. strobe

2 at 16bit: Dimmer

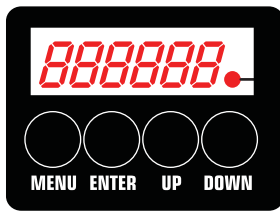
3 at 16bit: Dimmer w. strobe

Protocol: USITT DMX512-A

SOFTWARE UPDATE

Software can be updated via DMX512 with UPLOADER from Brother, Brother & Sons ApS and the latest software version can be found on www.brothers-sons.dk.

SOFTWARE MENU



DMX Indicator

MENU Open menu / Go back
ENTER Select / Confirm
UP Scrolling UP / Increase value
DOWN Scrolling DOWN / Decrease value

To turn display readout upside down, press up+down simultaneously

Default settings in Bold

Addr	1	DMX address value 1 - 512
Mode	rESolu	8 or 16 bit resolution
	rESPon	Slow (fade between values) Fast (snap between values)
	StrobeE	OFF - DMX Channel disabled ON - DMX Channel enabled
	CurVE	Square dimmer curve Linear dimmer curve
MANuAL	0	Manual intensity 0 - 100% Intensity saved when pressing ENTER Display is always on when in manual mode
PErS	Fan	HIGH - No fan speed limit LOW - Fan speed limited (Silent)
	nodMX	Action on loss of DMX HOLD - last DMX value OFF - Go to default DMX value MAN - Go to manual DMX value
	diSP	OFF 2n - Display off after 2 minutes ON - Display always on
tooLS	UEr	Shows software version
	tEMP	LED temperature readout
	dMX In	3 first digits shows DMX adress 3 last digits shows DMX value
	rESEt	Reset unit by pressing enter
	tStFAn	Fan test First 1 or 2 digits - set fan speed level 0 - 31 Last 1,2 or 3 digits - RPM readout

...software menu tree.. continued.

toolS	tStdSP	Display test - all seven segments of each digit on			
	LoG	FAn	Maximum logged fan speed in RPM		
		EEProM	For development use		
		LEd U	LED voltage in Volts		
		PSu U	PSU voltage in Volts		
		LoG C	Minimum and Maximum logged temperature UP and DOWN scrolls min. and max.		
		ontIME	PSU on-time in hours		
		on LEd	LED on-time in hours		
	dMX HZ	DMX refresh rate			
	dMX CH	Number of DMX Channels			
	dMX br	Break lenght of DMX in microseconds			

DMX Channels

Mode	Channel	Parameter	Value	Percent	Function
8 Bit	1	Dimmer	0 - 255	0 - 100	Coarse dimming
<hr/>					
8 Bit	1	Dimmer	0 - 255	0 - 100	Coarse Dimming
w. Strobe	2	Strobe	0 - 255	0 - 100	Strobe - Slow to Fast
<hr/>					
16 Bit	1	Dimmer	0 - 255	0 - 100	Coarse dimming
	2	Dimmer	0 - 255	0 - 100	Fine dimming
<hr/>					
16 Bit	1	Dimmer	0 - 255	0 - 100	Coarse dimming
w. Strobe	2	Dimmer	0 - 255	0 - 100	Fine dimming
	3	Strobe	0 - 255	0 - 100	Strobe Slow to Fast

SPECIFICATIONS

Physical:

Depth: 357,5 mm / 14,07" (additional depth when mounted 0 mm / 0")
Width: 415,75 mm / 16,37" (additional width when mounted 0 mm / 0")
Height: 527 mm / 20,75" (additional height when mounted 10 mm / 0,39")
Weight: (additional weight when mounted 1,5 kg / 3,3 lbs)

Data:

DMX Channels:
1 or 2 at 8bit:
2 or 3 at 16bit:
Protocol: USITT DMX512-A

Electrical:

Never connect to dimmer power
AC Power: 100 – 240 V nominal, 50/60 Hz
Powersupply: Electronic switchmode
Max. power consumption: 182 W.
This fixture must be connected to ground.

Thermal:

Maximum ambient temperature - t.Amb: 35° C / 95° F
Cooling t. Case (temperature as shown in display):
Below 64° C / 147,2° F Convection cooled
Above 64° C / 147,2° F Forced silent fan cooling
Above 70° C / 158° F Forced dimming
Above 73° C / 163,4° F Forced Lamp Off

Accessories:

Uploader: BBS Software Uploader

Specifications subject to change without notice. For the latest specifications see www.brothers-sons.dk