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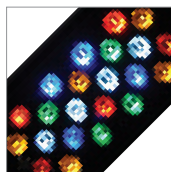
## USER MANUAL

### LL STAGE WASH 600/1200/1800

Without optic: LL76 3xx  
LL76 4xx

### COMPLIMENTS ON YOUR PURCHASE!

All dimensions are in millimeters



#### Following items are included:

##### 1. Version without Vario optic

- LL STAGE WASH with adjustable bracket 1 pc.
- PowerCon type "A" + "B" 1 pc.
- User manual 1 pc.

##### 2. Version with Vario optic

- LL STAGE WASH with adjustable bracket 1 pc.
- LL VARIO OPTIC WASH 600 25° 1 pc.
- PowerCon type "A" + "B" 1 pc.
- User manual 1 pc.

#### Additional items needed:

- Data cables with XLR 5pin Female/Male 1 pc.
- Controller compatible with DMX 1 pc.
- Mounting accessories as necessary
- Surface mounting: min. 4pcs.
- Screws and washers M12 or M10

#### Content:

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### ENVIRONMENT

Do not throw away the appliance with the normal household waste at the end of its life, but hand it in at an official collection point for recycling. By doing this, you help to preserve the environment.



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### 01 SAFETY INFORMATION

#### WARNING!!!

Carefully read before installing, powering or servicing. Nothing to do if anything misunderstand! Installation can be done only by a qualified professional in accordance with relevant local codes.

#### 01.1 Risk of eyes damage

- Do not look directly into LED lamps.
- Do not look into light beam from a distance of less than 40 cm (16 inches)!

#### WARNING!!! AWUV versions:

Overall allowable time of exposure of unprotected eyes in relation to the distance from the light source results:

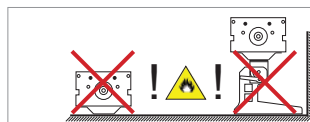
distance (m)	0,6m	1,0m	2,0m	3,0m
max. exposure time (h:m:s)	0:17:52	0:35:55	1:35:24	2:43:08

#### 01.2 Protection from electric shock

- Shut down power before installation or maintenance.
- Luminaries and recommended AC power supply must be installed by a qualified professional in accordance with relevant local codes. Only acceptable source of AC power and frequency that complies with local building and electrical codes to use.
- Do not use or do not connect the products if the power cable, power plug or fixtures are any way damaged, wet, or if they are overheating.
- Do not modify, alter, or attempt to service the LeaderLight appliance. Doing so will void the warranty.
- Before removing or installing any cover or part of appliance disconnect it from AC power.
- Appliance always connect to earth (eltech.).

#### 01.3 Fire prevention

- Follow all safety consideration.
- Thermostatic switches or fuses never to bypass.
- Device never shield. Around the axis of the fitting (180°) must be maintained space for cooling. Minimum distance from the surrounding objects must be 100mm (4 in.).
- LEDs never direct cover with filters or other materials.
- Allowing max. ambient temperature is 40°C (104°F).
- Luminaries never use without mounting brackets. The housing never install directly to the surface.



#### WARNING!!!

Non-minimum distance and/or non-use the original brackets is at your own risk!

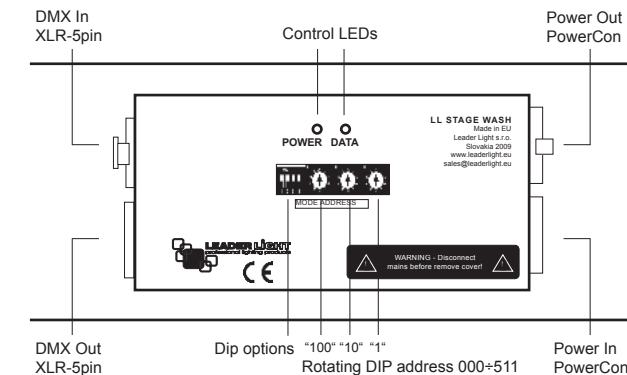
### 02 PRODUCT SPECIFICATION

#### 02.1 Technical Specification

Lamp type	600/1200/1800mm: 66/132/198 x LED *
VarioOptic	15°, 30°, 40°, 60°, EL (20°x40°)
Control data connection	DMX 512 In/Out with XLR 5pin
Power connection	AC90-264V, 47-63Hz In/Out PowerCon
Max. input power	600/1200/1800mm: 102/203/306 W
Net weight	600/1200/1800mm: 5,5/11,0/17,0 kg (12,1/24,3/37,5 lb)
Lifetime	75.000 hours (70% lumen maintenance at T <sub>a</sub> = +25°C (77°F))
Ambient temp. (Ta)	Maximum 40°C (104°F)
Cooling	Conventional
Installation	Fast mounting using Camlocs
Materials and finish	Powder painted anodized aluminium in RAL 9005 (other colours on request)

\* P4: ■ R-Red, ■ G-Green, ■ B-Blue, ■ A-Amber, ■ W-White (6300°K)  
- UV: □ UV-Ultra Violet

### 02.2 Back panel



#### Control LEDs Indication

POWER ● DATA ●

LED	INDICATION	STATUS
POWER (Green)	blinking – 2Hz	OK - inside fixture is everything correct
DATA (Yellow)	light off	NO DMX512 signal
DATA (Yellow)	blinking – 4Hz	OK- income correct DMX512 signal
DATA (Yellow)	fast blinking	NON correct digital signal
POWER (Green)	alternate blinking	Autotest function
DATA (Yellow)		

### 03 INSTALLATION

#### 03.1 Unpacking

- Unpack carefully.
- This is electronic equipment and should be handled carefully.
- Damaged delivered package or if are any mechanical parts broken – it must be claim immediately by the transport company. Photo pictures as evidence are valuable for future claim.

#### 03.2 Physical installation

- Loading capacity of bearing area has to be at least 10 times the weight of all device clusters (luminaries, clamps, cables, ...).
- Hairbreadth from combustible materials is 0,5m.
- Before physical installation insert the optic modul on front of luminary. The optic installation is easy and fast by 2 screws. (figures Nr. 3.1 to 3.2)

#### 03.3 Connecting to AC power

- To tackle all Safety Information- 01!
- For protection from electric shock, the device must be grounded (earthed)!
- It is not necessary to open the fixture before power supply. Power supply is solved simple with Neutrik PowerCon connectors.
- The fixture is equipped with auto-switching power supply that automatically adjusts to any 50-60Hz AC power source from 100-260V.

- Cord plug connections:

Symbol	Pin	Wire Colour	Screw (US)
L	live	brown	yellow or brass
N	neutral	blue	silver
⏚	ground (earth)	yellow/green	green

#### 03.4 Control data connecting

- Control data cable length is specified by Norm IEC929 Annex E4.
- It is not necessary to open the fixture before connecting of DMX512 control signal. Interconnections are realized by Neutrik XLR 5pin In/Out connectors.
- Pin connections:  
Pin 1 – ground  
Pin 2 – signal negative  
Pin 3 – signal positive

If you have any question please, contact [support@leaderlight.sk](mailto:support@leaderlight.sk)

### 03.5 DMX channels - subject to change

The latest version of DMX channels appendix are on the websites - [www.leaderlight.eu](http://www.leaderlight.eu)

Ch.	RGBAW	AW	AWUV
<b>Mode1: Dip2=Off</b>			
1	R 1, R 2, R 3	A 1, A 2, A 3	A 1, A 2, A 3
2	G 1, G 2, G 3	W 1, W 2, W 3	W 1, W 2, W 3
3	B 1, B 2, B 3	Master (Dip1=On, Dip4=Off)	UV 1, UV 2, UV 3
4	A 1, A 2, A 3	Strobo (Dip1=On, Dip4=Off)	Master (Dip1=On, Dip4=Off)
5	W 1, W 2, W 3		Strobo (Dip1=On, Dip4=Off)
6	Master (Dip1=On, Dip4=Off)		
7	Strobo (Dip1=On, Dip4=Off)		
<b>Mode4: Dip2=On</b>			
1	R 1	A 1	A 1
2	G 1	W 1	W 1
3	B 1	A 2	UV 1
4	A 1	W 2	A 2
5	W 1	A 3	W 2
6	R 2	W 3	UV 2
7	G 2	Master (Dip1=On, Dip4=Off)	A 3
8	B 2	Strobo (Dip1=On, Dip4=Off)	W 3
9	A 2		UV 3
10	W 2		Master (Dip1=On, Dip4=Off)
11	R 3		Strobo (Dip1=On, Dip4=Off)
12	G 3		
13	B 3		
14	A 3		
15	W 3		
16	Master (Dip1=On, Dip4=Off)		
17	Strobo (Dip1=On, Dip4=Off)		
<b>Extention and control functions:</b>			
Dip4=Off, Dip1=Off =>DipBCD: use rotating switch for DMX start address (RS1-100, RS2-010, RS3-001) from 001 to 511			
Dip4=Off, Dip1=On: address+2channels (Master+Strobo)			
Dip4=On, Dip1=Off: switch on AutoRun-table functions: "100"=Prg.0-9, "10"=StepTime, "1"=FadeTime			
Dip4=On, Dip1=On: switch all channels on 50% - test function			
Dip2=Off: Mode 1 (5+2ch)	Dip2=Off: Mode 1 (2+2ch)	Dip2=Off: Mode 1 (3+2ch)	
Dip2=On: Mode 4 (15+2ch)	Dip2=On: Mode 4 (6+2ch)	Dip2=On: Mode 4 (9+2ch)	
Dip3=Off:	standard curve		
Dip3=On:	ultraSoft curve		

### 05 MAINTENANCE

- To tackle all Safety Information- 01!
- Damage caused by inadequate cleaning or maintenance is not covered by warranty.
- Regular cleaning is demand (dust, dirt, ...).



#### Maintenance policy:

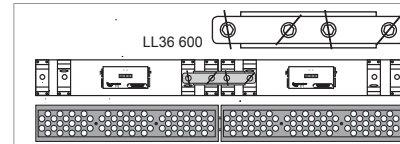
- Unplug mains before maintenance and at least 10 minutes cool off
- Appliance do not illegal open or demount
- Clean-up dust only from outer surface (for ex. scuttile, diffuser and lenses).
- Use vacuum or dumpy duster (warm water)
- Before reinstalling to check failure-free state – no wet parts!

### Mechanical mounting of LL STAGE WASH on stage

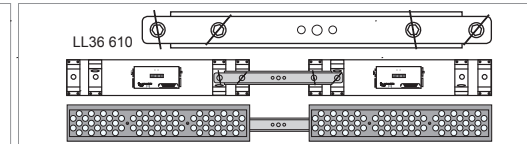
Mounting on stage is easy using various accessories as seen below (Figures Nr. 1.1 to 1.4). The brackets are connect by Camlocs.



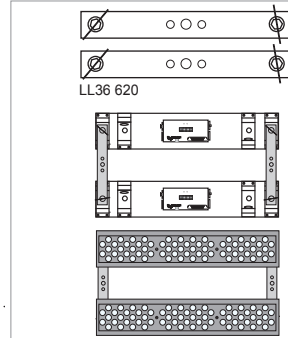
- Camloc 1/4 turn fasteners**
- Safe mechanical quick release fastener systems
  - Locking/unlocking by quarter turn
  - Hand operated
  - Service-friendly, time-saving and cost cutting
  - Vibration-resistant



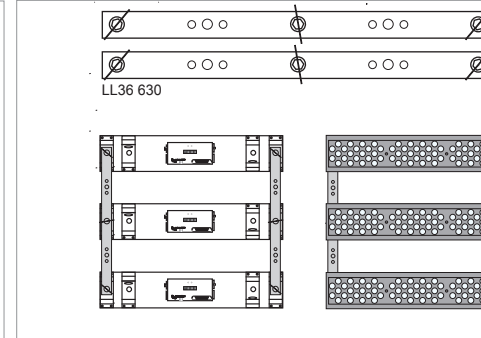
1.1 Serial connection by LL36 600 for creation of continuous line



1.2 Serial connection by LL36 610 for creation of line with extension



1.3 Parallel connection by dual bracket LL36 620



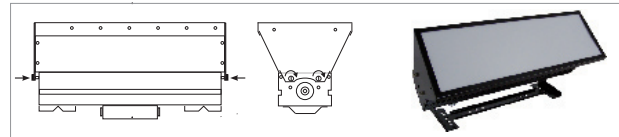
1.4 Parallel connection by triple bracket LL36 630



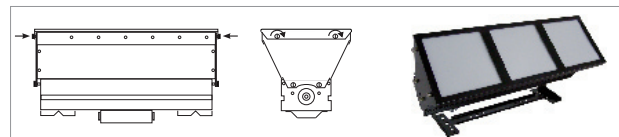
**AIMING POSSIBILITY**  
The fixture could be aim to wish position with adjustable bracket.

### Mechanical mounting of tubus and frame to the LL STAGE WASH

Tube and frame installation without tools (Figures Nr. 2.1 to 2.2).



2.1 Fit the tube LL37 300 / LL37 303 part on top of fitting. The tube screws screw into the fitting holes. The tube is ready to use.



2.2 The frame must be installed together with tube LL37 303. The frame mount with screws on the top of tube.

### Vario Optic installation

It is not necessary to open the fixture for exchange of Vario Optic (Figures Nr. 3.1 to 3.2).



3.1 The optic installation is easy and fast by 2 screws.



3.2 Carefully remove the optic modul and insert the new one and fix with screws.

### 04 PERMANENT USE LIMITATIONS FOR HEATING DISSIPATION

- Permanent use limitations for heating dissipation of LL STAGE WASH RGBAW body temperature must be less then 55°C

40°C ambient temperature -20% of total power  
30°C ambient temperature -10% of total power  
20°C ambient temperature -0% of total power

Black version - 30%  
Silver or White version - 50%

Example: Then final permanent value for BLACK colour and 40°C ambient temperature = -30% -20% = 56% =  $\max 143 \geq (R + G + B + W + A) / 5$

It's mean average of power go inside the fixture at DMX signal

Example:  
black LL STAGE WASH:  $180 \geq (R + G + B + W + A) / 5$   
Silver or White LL STAGE WASH:  $128 \geq (R + G + B + W + A) / 5$

Value for R or G or B or W or A is 100% = 256 = 8bit levels \*\*\* RED 50% = 128 value, RED 75% = 192 value

Final information we don't drop down each colour power with temperature control to get maximum for each colour under total recommendations, therefore you need setup limitations from control desk !!!

### DAISY CONNECTION LIMITATION:

6pcs 600mm LL STAGE WASH 600 or 3pcs 1200mm LL STAGE WASH 1200 is possible to connect by daisy chain connection

\* Standard delivery with LL BRACKET STAGE ADJUSTABLE

\*\* Vario Optic should be ordered separately

If you have any question please, contact [support@leaderlight.sk](mailto:support@leaderlight.sk)