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USER MANUAL

LL PRO WASH IP65

LL35 070 | LL35 090 | LL35 100 | LL35 120

COMPLIMENTS ON YOUR PURCHASE!

All dimensions are in milimeters

630

230   130

107,5
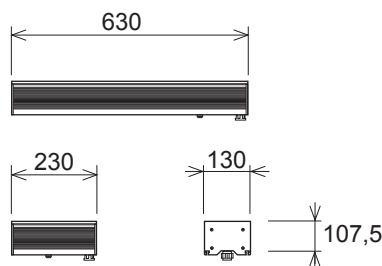
Following items are included:
- LL PRO WASH IP65 with 1m power cable, 2x1m control cable with XLR5pin   1 pc.
- User manual   1 pc.

Additional items needed:
- Controller compatible with DMX   1 pc.
- Mounting accessories as necessary

Surface mounting:
- Screws and washers M12 or M8

Content:

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.

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)!

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.) (figure 1.1).
- 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!
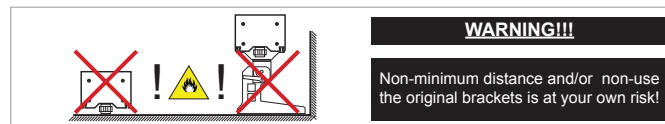
02 PRODUCT SPECIFICATION

02.1 Technical Specification

|	
Lamp type:	22/66 x RGBAW P4 * / 22/66 x AW P4 *
Lifetime:	Long 50 000 hrs 70% degradation
Optic:	Standard: 25°, on request: 10°, 40°, EL and AS
Control data Input:	DMX 512 In/Out with 1m cable with XLR5pin
Input power:	max. 34W/102W
Power connection:	100-260V AC 50-60Hz In 1m cable
Net weight:	3kg/5,5kg
IP:	IP65
Ambient temp. (Ta):	max. +40°C
Cooling:	Conventional
Materials and finish:	Housing: powder-painted anodized aluminium in black (other colours on request)
Installation:	Surface mounting

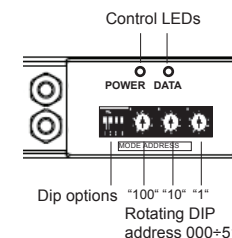* P4: ■ R-Red, ■ G-Green, ■ B-Blue, ■ A-Amber, □ W-White (6300°K)

02.2 Back panel

1m cable 100-260V AC   1m cable XLR5pin In/Out DMX512   Top cover *Detail A*
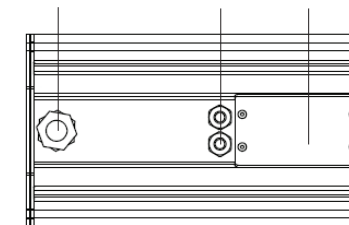
Detail A: after unscrew the top cover

Control LEDs

POWER   DATA

MODE ADDRESS

Dip options   "100" "10" "1"
Rotating DIP address 000÷511

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, ...) (figure 2.1, 2.2).
- Hairbreadth from combustible materials is 0,5m.

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 1m cable.
- 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 1m cables In/Out with XLR5pin.
- Pin connections:
    Pin 1 – ground
    Pin 2 – signal negative
    Pin 3 – signal positive

03.5 DMX channels - subject to change (The latest version of DMX channels appendix are on the websites - www. leaderlight.eu)

DMX channels and DIP Switch:

Ch.	WASH 600 RGBAW	Ch.	WASH 600 AW
Mode1: Dip2=Off			
1	Red 1,2,3	1	Amber 1,2,3
2	Green 1,2,3	2	White 1,2,3
3	Blue 1,2,3	3	Master (Dip1=On, Dip4=Off)
4	Amber 1,2,3	4	Strobo (Dip1=On, Dip4=Off)
5	White 1,2,3	5	
6	Master (Dip1=On, Dip4=Off)	6	
7	Strobo (Dip1=On, Dip4=Off)	7	
Mode4: Dip2=On			
1	Red 1	1	Amber 1
2	Green 1	2	White 1
3	Blue 1	3	Amber 2
4	Amber 1	4	White 2
5	White 1	5	Amber 3
6	Red 2	6	White 3
7	Green 2	7	Master (Dip1=On, Dip4=Off)
8	Blue 2	8	Strobo (Dip1=On, Dip4=Off)
9	Amber 2	9	
10	White 2	10	
11	Red 3	11	
12	Green 3	12	
13	Blue 3	13	
14	Amber 3	14	
15	White 3	15	
16	Master (Dip1=On, Dip4=Off)	16	
17	Strobo (Dip1=On, Dip4=Off)	17	

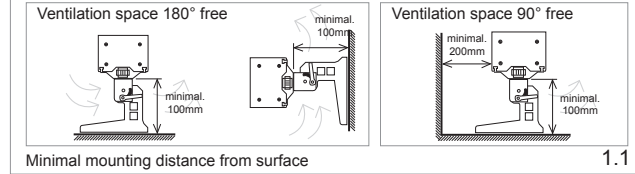| Extention and control functions:	
Dip4=Off, Dip1=Off =>DipBCD: use rotating switch for DMX start address (RS1-100, RS2-010, RS3-001) from 001 to 511	
Dip4=Off, Dip1=On:	address+2channel (Master+Strobo)
Dip4=On, Dip1=Off: switch on AutoRun-table functions: "100"=Prg.0-9, "10"=StepTime, "1"=FadeTime	
Dip4=On, Dip1=On: switch all channels on 50% - test function	
Dip2=Off: Mode 1 (5+2ch)	Dip2=Off: Mode 1 (2+2ch)
Dip2=On: Mode 4 (15+2ch)	Dip2=On: Mode 4 (6+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 coveredby 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. scuttle, diffuser and lenses).
- Use vacuum or dumpy duster (warm water)
- Before reinstalling to check failure-free state – no wet parts!

Ch.	WASH 200 RGBAW
Mode1: Dip1=Off	
1	Red 1
2	Green 1
3	Blue 1
4	Amber 1
5	White 1
Mode2: Dip1=On	
1	Red 1
2	Green 1
3	Blue 1
4	Amber 1
5	White 1
6	Master
7	Strobo 1-19Hz

Functions DipBCD (rotating switch RS1 - „100", RS2 - „10", RS3 - „1")	
DipBCD = 000	= DMX address 001
DipBCD = 001 - 512	= DMX address 001 - 512
DipBCD = 9xx	= AutoTest: Fade-Over RGBAW
DipBCD = 8xx	= AutoTest: all channels on 50%
DipBCD = 7xx	= AutoTest: all channels on 100%
DipBCD = 6xx	= AutoTest: White on 100%

Functions Dip (switch Dip1, Dip2, Dip3, Dip4)	
Dip1 = On	= add + 2 channels (Master + Strobo)
Dip4 = Off	= activation Standard curve
Dip4 = On	= activation UltraSoft curve
Dip2 = Off, Dip3 = Off	= future
Dip2 = Off, Dip3 = On	= future
Dip2 = On, Dip3 = Off	= future
Dip2 = On, Dip3 = On	= future

04 PERNAMENT USE LIMITATIONS FOR HEATING DISSIPATION

- **Pernament use limitations for heating dissipation of LL PRO 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 pernament value for BLACK colour and 40°C ambient temperature = -30% -20% = 56% = max 143 ≥ (R + G + B + W +A) / 5
It's mean average of power go inside the fixture at DMX signal

Example:
black LL PRO WASH: 180 ≥ (R + G + B + W + A) / 5
Silver or White LL PRO WASH: 128 ≥ (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 !!!

INSTALLATION SPACE

Ventilation space 180° free   Ventilation space 90° free

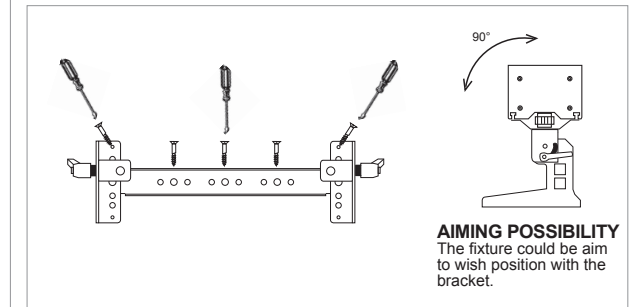Minimal mounting distance from surface   1.1

Mechanical mounting of LL PRO WASH IP65 and Adjustable bracket

The installation of LL PRO WASH IP65 and Adjustable bracket is easy. It is not necessary to open the fixture before the mechanical mounting.

Adjustable bracket
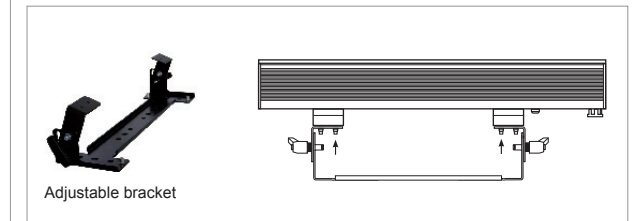
2.1 Fit the adjustable bracket on the fitting and fit with srews.

90°

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

2.2 The bracket fix to the solid surface with srews (minimal 4pcs).

Order code	Product name
LL35 070	LL PRO WASH RGBAW 200 FIX 25° ** IP65
LL35 090	LL PRO WASH RGBAW 600 FIX 25° ** IP65
LL35 100	LL PRO WASH AW 200 FIX 25° ** IP65
LL35 120	LL PRO WASH AW 600 FIX 25° ** IP65

Accessories:

LL37 910	LL BARNDOOR PRO WASH 600

** Optional 10°, 40°, EL (Eliptical 15°x90°), AS (Asymetrical) on request.

If you have any question please, contact support@leaderlight.sk