Landscape
Lighting

Designed by **Aqualux**

General
Installation Guide

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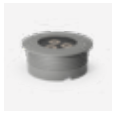
AQL-157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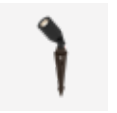
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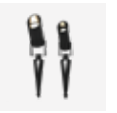
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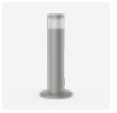
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Creating the Legend

The new Aqualux **'AQL'** product code is created from key detailed elements directly related to your chosen fitting.

Structured to quickly give you all the relevant information you need, at a glance.

AQL-XXX-AA-BCCCDDEEF

DD	White CCT
22	2200K
25	2500K
27	2700K
30	3000K
35	3500K
40	4000K
45	4500K
50	5000K
57	5700K
60	6000K
65	6500K

DD	Colour / Multi
RD	Red
GN	Green
BU	Blue
PK	Pink
AM	Amber
OR	Orange
LY	Lemon Yellow
Z0	Custom
Z1	RGB
Z2	RGBW (3000K)
Z3	RGBW (2700K)
Z4	RGBW (6500K)
Z5	DMX RGB
Z6	DMX RGBW (2700K)
Z7	RGBA (Amber)

F	Cable / Termination Style
S	Standard (Varies by Product)
Q	AqualuxPLUS QuickConnect
T	Terminal Block

AA	Material	Finish
A0	Aluminium	Custom
A1	Aluminium	Satin Chrome
A2	Aluminium	Black
A3	Aluminium	Aged Brass
A4	Aluminium	Gunmetal Grey
A8	Aluminium	White
B0	Brass	Custom
B1	Brass	Brushed Chrome
B2	Brass	Black
B3	Brass	Aged Brass
B4	Brass	Gunmetal Grey
B5	Brass	Copper
B6	Brass	Natural Brass
B7	Brass	Bronze
B8	Brass	White
C0	Copper	Custom
C1	Copper	Natural Copper
C2	Copper	Black
S0	Stainless 316/304	Custom
S1	Stainless 316	Natural
S2	Stainless 304	Natural
S3	Stainless 316	Black

CCC	Watts
001	1W
002	2W
003	3W
004	4W
006	6W
007	7W
008	8W
009	9W
010	10W
021	21W
050	50W
100	100W
200	200W
300	300W
400	400W
500	500W
600	600W
800	800W
1000	1000W

Note: Not all fittings come with every variant displayed here, please check the Aqualux website for product variations

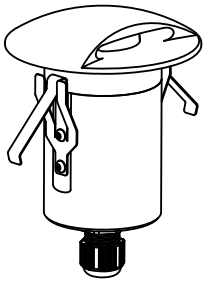
EE	Beam ° FWHM / Distribution
10	10° FWHM
15	15° FWHM
20	20° FWHM
25	25° FWHM
30	30° FWHM
35	35° FWHM
36	36° FWHM
38	38° FWHM
40	40° FWHM
50	50° FWHM
60	60° FWHM
70	70° FWHM
DF	Diffuse Frosted
DC	Diffuse Clear
A1	Asymmetric / Cutoff
A2	Asymmetric / Billie Lens
A3	Wall Wash / Rita
A4	Asymmetric / Emily Lens
O1	Oval 25x50°

B	Input Voltage	Dimming	Conductors	Polarity
X	12–24V AC / 24V DC	Dimming	3 (2 Power / 1 Signal PWM)	No
A	240V AC	DALI Integrated	4 (2 Power / 2 DALI)	No
Y	12–24V AC / 24V DC	Non Dimming	2 (Power)	No
D	24V AC	TRIAC / Phase Cut Dimming	2 (Power)	No
C	Constant Current	Gontrol Geart Dependant (DALI/DMX/1-10/PWM	2 (Power)	Yes
Z	24V DC	4CH PWM Dimming. Common Anode	6 (2 Power / 4 Signal PWM)	Yes
E	24V DC	PWM Dimming	2/4/5 (Power PWM)	Yes
B	24V DC	PWM Dimming. 3-Wire PWM DRV	3 (2 Power / 1 Signal PWM)	Yes
L	24V DC	DALI Dimming. Integral	4 (2 Power / 2 DALI)	Yes
M	MR 16	Lamp Dependant	2 (Power)	No
G	GU10	Lamp Dependant	2 (2 Power)	No
F	240V AC	Control Gear Dependant	3 (2 Power / 1 Earth)	No
H	24V AC / DC	PWM Dimming	2 (Power PWM)	No
J	12V DC	PWM Dimming	2 (Power)	No
K	24V DC	Non Dimming	2 (Power)	Yes

Recessed installation - **Timber Deck**

What is a Recessed fitting?

A fitting which is recessed into a substrate (timber deck), usually flush mounted. Placement of the fitting has to be considered prior to installation, allowing for wiring connections. Below is a list of Aqualux Recessed fittings which use a comparable installation method. Installation instructions on the adjacent page. Please note that these instructions constitute general advice only. Your specific installation requirements may vary and should be tailored to suit your install.



SAMPLE IMAGE FOR DISPLAY PURPOSES ONLY

Before you start your installation

- Thank for purchasing an Aqualux Lighting product.
- Please follow these instructions carefully.
- Your warranty and safety depends on it.
- All wiring must be in accordance with local regulations.
- If a fault or failure occurs, please contact Aqualux to discuss.
- It is recommended to wash the luminaire with fresh water and a little bit of dish soap from time to time to stop salt and corrosive elements building up.
- Do not attempt to service the product.

24V AC / DC | IP67

Correct installation & care for your warranty

Check product label for correct power requirements.
Do not connect to mains (240V), unless specifically stated.
Do not "hot-plug" lighting fixture - i.e. do not connect to energised power supply.
Ensure cable termination is fully sealed and all joins are heat-shrinked or encapsulated.
Ensure cable glands are hand tightened and end caps secured after transit & installation.
Do not attempt to field service Aqualux fittings without prior instruction.
Do not look directly at LED light source - it will damage your eyes!
For surface mount, a bead of silicone between surface and fitting is recommended.
These notes must be observed for the Aqualux Warranty to apply.

You can download your specific wiring diagram from the table and links on page 38

Range	Recessed Fittings
LumenaPro	AQL-157 / AQL-158
Lumena	AQL-151 / AQL-152 / AQL-155 / AQL-162 / AQL-163 / AQL-164 / AQL-165 / AQL-166 / AQL-195
Phoenix	AQL-530 / AQL-531
Hydra	–
Artisan	–
AQL-600	–
AQL-900	–
Extrusion	–
String	–

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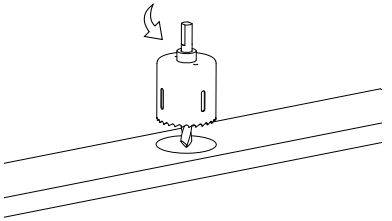
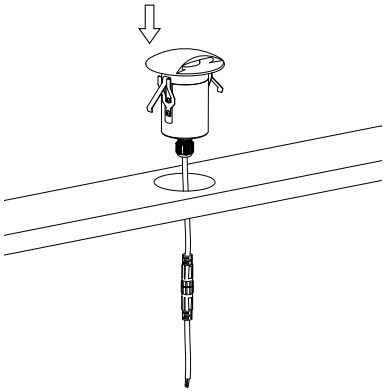
Considerations



- Install recessed fittings on flat or slightly raised surfaces to allow water runoff and minimise water pooling.
- Good drainage is recommended.
- The depth of the hole nessecary for the fitting is subject to the safe space needed for wire connections.
- Never force or bend input wires.

1. Cut hole

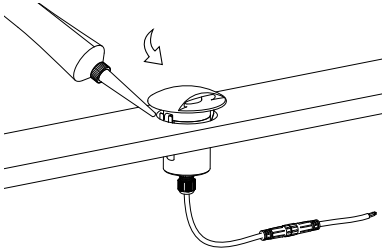


- Position fittings first for spacing.
- Use the correct hole saw for timber with correct hole diameter to suit the fitting .
- List of recommended hole diameters below.

2. Wiring

- Connect the pre installed wiring (bare wire connection needs to be water proof with heatshrink and or suitable covering).
- All joins must be IP rated.
- For your wiring diagram, go to page 38 and click the link for your specific fitting.

3. Set the fitting



- Dry fit the fitting first, making sure connections are working.
- Your fitting may have push in springs to fit through hole.
- Firmly push down on the fitting.
- In high traffic areas, it may be necessary to place a thin bead of silicone under and around the dress ring.
- Firmly set the fitting into place.

Hole Diameter	Hole Depth	Recessed Fittings
155mm	95mm / 75mm	AQL-157 / AQL-158
20mm	70mm	AQL-151
34mm	40mm	AQL-152
55mm	85mm/105mm	AQL-155 / AQL-162 / AQL-163 / AQL-164 / AQL-165 / AQL-166
35mm	75mm	AQL-195
55mm	130mm / 105mm	AQL-530 / AQL-531

Recessed installation - **Pavers**

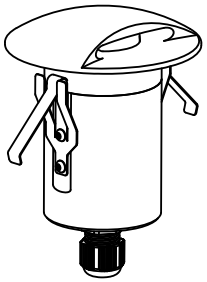
What is a Recessed fitting?

A cylinder in shape which is embedded into a paver, usually flush or surface mounted. Placement of the fitting has to be considered prior to installation, allowing for wiring connections. Below is a list of Aqualux Recessed fittings which use a comparable installation method. Installation instructions on the adjacent page. Please note that these instructions constitute general advice only. Your specific installation requirements may vary and should be tailored to suit your install.

Before you start your installation

- Thank for purchasing an Aqualux Lighting product.
- Please follow these instructions carefully.
- Your warranty and safety depends on it.
- All wiring must be in accordance with local regulations.
- If a fault or failure occurs, please contact Aqualux to discuss.
- It is recommended to wash the luminaire with fresh water and a little bit of dish soap from time to time to stop salt and corrosive elements building up.
- Do not attempt to service the product.

24V AC / DC | IP67



SAMPLE IMAGE FOR DISPLAY PURPOSES ONLY

Correct installation & care for your warranty

Check product label for correct power requirements.
Do not connect to mains (240V), unless specifically stated.
Do not "hot-plug" lighting fixture - i.e. do not connect to energised power supply.
Ensure cable termination is fully sealed and all joins are heat-shrinked or encapsulated.
Ensure cable glands are hand tightened and end caps secured after transit & installation.
Do not attempt to field service Aqualux fittings without prior instruction.
Do not look directly at LED light source - it will damage your eyes!
For surface mount, a bead of silicone between surface and fitting is recommended.
These notes must be observed for the Aqualux Warranty to apply.

You can download your specific wiring diagram from the table and links on page 38

Range	Recessed Fittings
LumenaPro	AQL-157 / AQL-158
Lumena	AQL-151 / AQL-152 / AQL-155 / AQL-163 / AQL-164 / AQL-165 / AQL-166 / AQL-195
Phoenix	AQL-530 / AQL-531
Hydra	–
Artisan	–
AQL-600	–
AQL-900	–
Extrusion	–
String	–

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Considerations

- Install recessed fittings on flat or slightly raised surfaces to allow water runoff and minimise water pooling.
- Good drainage is recommended.
- The depth of the hole nessecary for the fitting is subject to the safe space needed for wire connections.
- Never force or bend input wires.

1. Cut hole

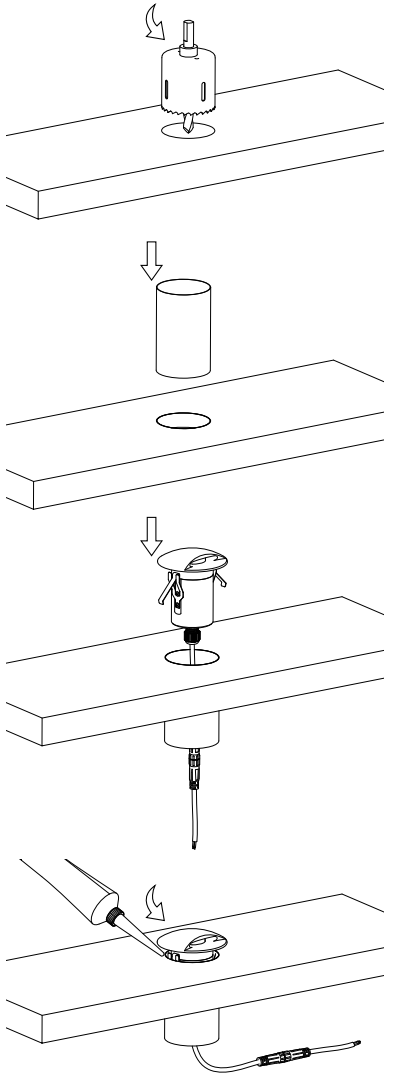
- Position fittings first for spacing.
- Use the correct hole saw for pavers with correct hole diameter to suit the fitting or PVC canister which may be used to protect the fitting.
- List of recommended hole diameters below.

2. Wiring

- Connect the pre installed wiring (bare wire connection needs to be water proof with heatshrink and or suitable covering).
- Conduit may be used if necessary. All joins must be IP rated.
- For your wiring diagram, go to page 38 and click the link for your specific fitting.

3. Set the fitting

- Dry fit the fitting first, making sure connections are working.
- Your fitting may have push in springs to fit through hole.
- Firmly push down on the fitting.
- In high traffic areas, it may be necessary to place a thin bead of silicone under and around the dress ring.
- Firmly set the fitting into place.

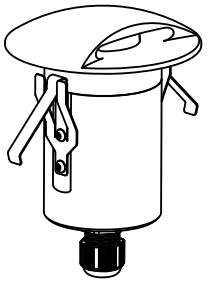


Hole Diameter	Hole Depth	Recessed Fittings
155mm	95mm / 75mm	AQL-157 / AQL-158
20mm	70mm	AQL-151
34mm	40mm	AQL-152
55mm	85mm/105mm	AQL-155 / AQL-162 / AQL-163 / AQL-164 / AQL-165 / AQL-166
35mm	75mm	AQL-195
55mm	130mm / 105mm	AQL-530 / AQL-531

Recessed installation - **Concrete pour**

What is a Recessed fitting?

A cylinder in shape which is pre-set for a concrete pour, when finished usually flush or surface mounted. Placement of the fitting has to be considered prior to the concrete, allowing for wiring connections with conduit.
Below is a list of Aqualux Recessed fittings which use a comparable installation method. Installation instructions on the adjacent page. Please note that these instructions constitute general advice only. Your specific installation requirements may vary and should be tailored to suit your install.



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- Your warranty and safety depends on it.
- All wiring must be in accordance with local regulations.
- If a fault or failure occurs, please contact Aqualux to discuss.
- It is recommended to wash the luminaire with fresh water and a little bit of dish soap from time to time to stop salt and corrosive elements building up.
- Do not attempt to service the product.

24V AC / DC | IP67

Correct installation & care for your warranty

Check product label for correct power requirements.
Do not connect to mains (240V), unless specifically stated.
Do not "hot-plug" lighting fixture - i.e. do not connect to energised power supply.
Ensure cable termination is fully sealed and all joins are heat-shrinked or encapsulated.
Ensure cable glands are hand tightened and end caps secured after transit & installation.
Do not attempt to field service Aqualux fittings without prior instruction.
Do not look directly at LED light source - it will damage your eyes!
For surface mount, a bead of silicone between surface and fitting is recommended.
These notes must be observed for the Aqualux Warranty to apply.

You can download your specific wiring diagram from the table and links on page 38

Range	Recessed Fittings
LumenaPro	AQL-157 / AQL-158
Lumena	AQL-151 / AQL-152 / AQL-155 / AQL-163 / AQL-164 / AQL-165 / AQL-166 / AQL-195
Phoenix	AQL-530 / AQL-531
Hydra	–
Artisan	–
AQL-600	–
AQL-900	–
Extrusion	–
String	–

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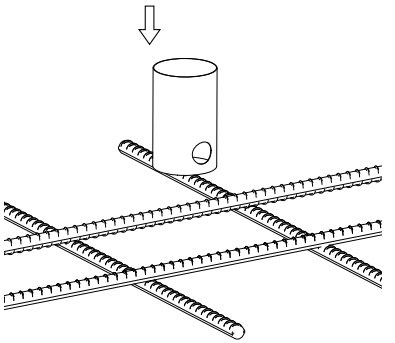
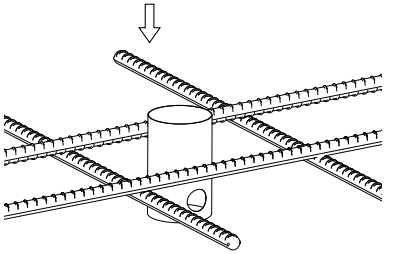
Considerations

- Install recessed fittings on flat or slightly raised surfaces to allow water runoff and minimise water pooling.
- Good drainage is nessecary, gavel and sand is recommended.
- The depth of the hole nessecary for the fitting is subject to the safe space needed for wire connections.
- Never force or bend input wires.



1. Concrete pour

- Use the requested PVC sleeve, and position to accommodate the necessary wiring.
- Connect conduit to the sleeve (conduit not supplied). Cap off the top of the sleeve to prevent concrete entering the sleeve.
- Pour concrete without the fitting installed.

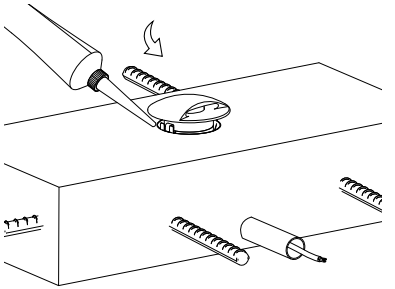


2. Wiring

- Connect the pre installed wiring (bare wire connection needs to be water proof with heatshrink and or suitable covering).
- Conduit may be used if necessary. All joins must be IP rated.
- For your wiring diagram, go to page 38 and click the link for your specific fitting.

3. Set the fitting

- Dry fit the fitting first, making sure connections are working.
- Your fitting may have push in springs to fit through hole.
- Firmly push down on the fitting.
- In high traffic areas, it may be necessary to place a thin bead of silicone under and around the dress ring.
- Firmly set the fitting into place.

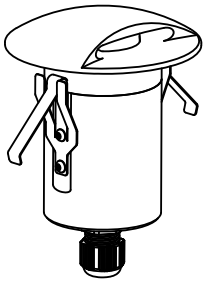


Hole Diameter	Hole Depth	Recessed Fittings
155mm	95mm / 75mm	AQL-157 / AQL-158
20mm	70mm	AQL-151
34mm	40mm	AQL-152
55mm	85mm/105mm	AQL-155 / AQL-162 / AQL-163 / AQL-164 / AQL-165 / AQL-166
35mm	75mm	AQL-195
55mm	130mm / 105mm	AQL-530 / AQL-531

Recessed installation - **Soil**

What is a Recessed fitting?

A cylinder in shape which is set into soil, when finished usually flush or slightly raised. Placement of the fitting has to be considered prior to placement, allowing for wiring connections.
Below is a list of Aqualux Recessed fittings which use a comparable installation method. Installation instructions on the adjacent page. Please note that these instructions constitute general advice only. Your specific installation requirements may vary and should be tailored to suit your install.



SAMPLE IMAGE FOR DISPLAY PURPOSES ONLY

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- Please follow these instructions carefully.
- Your warranty and safety depends on it.
- All wiring must be in accordance with local regulations.
- If a fault or failure occurs, please contact Aqualux to discuss.
- It is recommended to wash the luminaire with fresh water and a little bit of dish soap from time to time to stop salt and corrosive elements building up.
- Do not attempt to service the product.

24V AC / DC | IP67

Correct installation & care for your warranty

Check product label for correct power requirements.
Do not connect to mains (240V), unless specifically stated.
Do not "hot-plug" lighting fixture - i.e. do not connect to energised power supply.
Ensure cable termination is fully sealed and all joins are heat-shrinked or encapsulated.
Ensure cable glands are hand tightened and end caps secured after transit & installation.
Do not attempt to field service Aqualux fittings without prior instruction.
Do not look directly at LED light source - it will damage your eyes!
For surface mount, a bead of silicone between surface and fitting is recommended.
These notes must be observed for the Aqualux Warranty to apply.

You can download your specific wiring diagram from the table and links on page 38

Range	Recessed Fittings
LumenaPro	AQL-157 / AQL-158
Lumena	AQL-151 / AQL-152 / AQL-155 / AQL-163 / AQL-164 / AQL-165 / AQL-166 / AQL-195
Phoenix	AQL-530 / AQL-531
Hydra	–
Artisan	–
AQL-600	–
AQL-900	–
Extrusion	–
String	–

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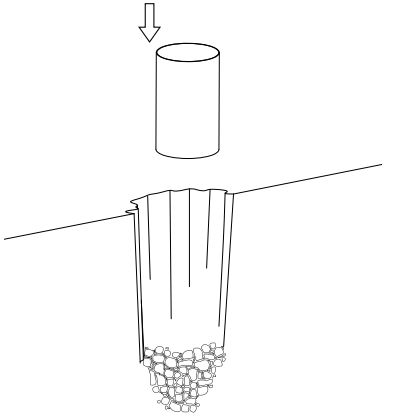
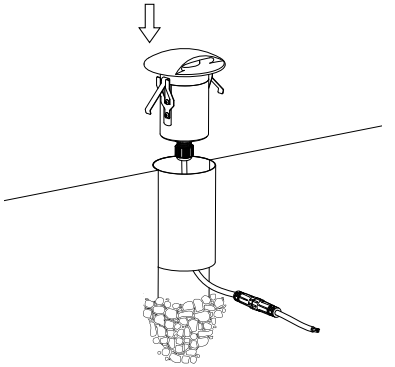
Considerations

- Install recessed fittings on flat or slightly raised surfaces to allow water runoff and minimise water pooling.
- Good drainage is nessecary, gravel and sand is recommended.
- The depth of the hole nessecary for the fitting is subject to the safe space needed for wire connections.
- Never force or bend input wires.



1. Wiring

- Connect the pre installed wiring (bare wire connection needs to be water proof with heatshrink and or suitable covering).
- Conduit may be used if necessary. All joins must be IP rated.
- For your wiring diagram, go to page 38 and click the link for your specific fitting.

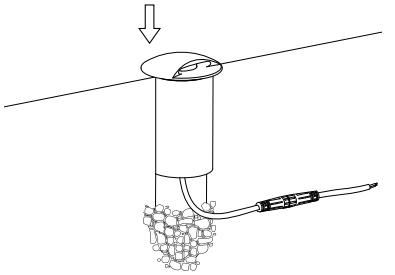


2. Set the fitting

- Dry fit the fitting first, making sure connections are working.
- Your fitting may have push in springs to fit through the sleeve.
- Firmly push down on the fitting.

3. Backfill the soil

- Place the sleeve into the hole and backfill the soil.
- Compact the soil for a firm hold.

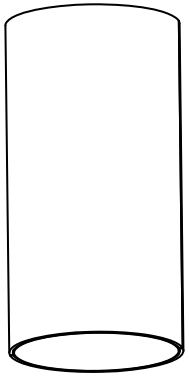


Hole Diameter	Hole Depth	Recessed Fittings
155mm	95mm / 75mm	AQL-157 / AQL-158
20mm	70mm	AQL-151
34mm	40mm	AQL-152
55mm	85mm/105mm	AQL-155 / AQL-162 / AQL-163 / AQL-164 / AQL-165 / AQL-166
35mm	75mm	AQL-195
55mm	130mm / 105mm	AQL-530 / AQL-531

Surface Mount installation - **Ceiling**

What is a Ceiling surface mount fitting?

Usually with a mounting plate which is screwed to the ceiling substrate. The mounting plate would have holes for screws, a centre hole for wires and either a threaded function or grub screw to mount the fitting the plate. Placement of the fitting has to be considered prior to the mounting, allowing for wiring connections. Below is a list of Aqualux fittings which use a comparable installation method. Installation instructions on the adjacent page. Please note that these instructions constitute general advice only. Your specific installation requirements may vary and should be tailored to suit your install.



SAMPLE IMAGE FOR DISPLAY PURPOSES ONLY

Before you start your installation

- Thank for purchasing an Aqualux Lighting product.
- Please follow these instructions carefully.
- Your warranty and safety depends on it.
- All wiring must be in accordance with local regulations.
- If a fault or failure occurs, please contact Aqualux to arrange servicing.
- It is recommended to wash the luminaire with fresh water and a little bit of dish soap from time to time to stop salt and corrosive elements building up.
- Do not attempt to service the product.

24V AC / DC	IP67	Confirm your specific product model.
240V AC	IP65	

Correct installation & care for your warranty

Check product label for correct power requirements.
Do not connect to mains (240V), unless specifically stated.
Do not "hot-plug" lighting fixture - i.e. do not connect to energised power supply.
Ensure cable termination is fully sealed and all joins are heat-shrinked or encapsulated (if required).
Do not attempt to field service Aqualux fittings without prior instruction.
Do not look directly at LED light source - it will damage your eyes!
For surface mount, a bead of silicone between surface and fitting is recommended.
These notes must be observed for the Aqualux Warranty to apply.

You can download your specific wiring diagram from the table and links on page 38

Range	Recessed Fittings
LumenaPro	AQL-840 / AQL-860 / AQL-880
Lumena	–
Phoenix	–
Hydra	–
Artisan	–
AQL-600	–
AQL-900	–
Extrusion	–
String	–

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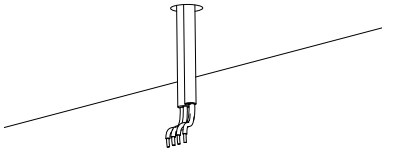
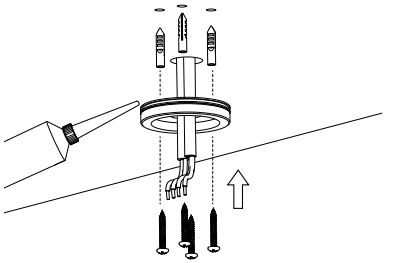
Considerations

- Install mounting plate on flat surface for a good seal.
- Never force or bend input wires.
- Use the supplied templates on pages 24-35.



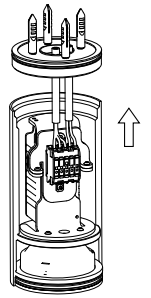
1. Wire feed

- Plugs for the screws may be necessary, determined by the ceiling substrate.
- For added strength and ingress protection, a thin bead of silicone under and around the mounting plate may be used.



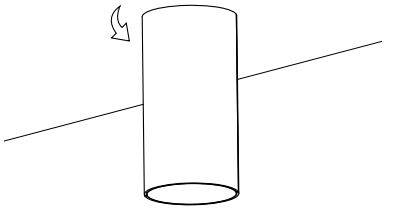
2. Mounting

- Connect the pre installed wiring (bare wire connection needs to be water proof with heatshrink and or suitable covering).
- Conduit may be used if necessary. All joins must be IP rated.
- For your wiring diagram, go to page 38 and click the link for your specific fitting.



3. Fit the fitting

- Screw fitting to the mounting plate.

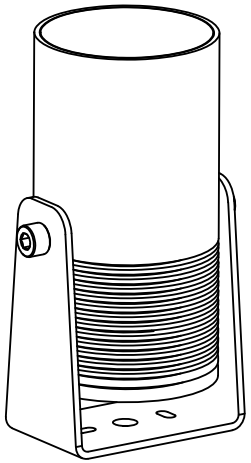


Wire Hole Diameters	Screw Hole Diameter	Screw Hole Depth	Mounting Bracket
10mm	6mm	30mm	AQL-840
10mm	8mm	40mm	AQL-860
20mm	10mm	50mm	AQL-880

Mounting Bracket installation - **All Substrates**

What is a Bracket mount fitting?

Usually with a mounting bracket which is screwed to a substrate. The mounting bracket will have holes for screws, a centre hole for wires. Placement of the fitting has to be considered prior to the mounting, allowing for wiring connections. Below is a list of Aqualux bracket mount fittings which use a comparable installation method. Installation instructions on the adjacent page. Please note that these instructions constitute general advice only. Your specific installation requirements may vary and should be tailored to suit your install.



SAMPLE IMAGE FOR DISPLAY PURPOSES ONLY

Before you start your installation

- Thank for purchasing an Aqualux Lighting product.
- Please follow these instructions carefully.
- Your warranty and safety depends on it.
- All wiring must be in accordance with local regulations.
- If a fault or failure occurs, please contact Aqualux to discuss.
- It is recommended to wash the luminaire with fresh water and a little bit of dish soap from time to time to stop salt and corrosive elements building up.
- Do not attempt to service the product.

24V AC / DC | IP67

Correct installation & care for your warranty

Check product label for correct power requirements.
Do not connect to mains (240V), unless specifically stated.
Do not "hot-plug" lighting fixture - i.e. do not connect to energised power supply.
Ensure cable termination is fully sealed and all joins are heat-shrinked or encapsulated.
Ensure cable glands are hand tightened and end caps secured after transit & installation.
Do not attempt to field service Aqualux fittings without prior instruction.
Do not look directly at LED light source - it will damage your eyes!
For surface mount, a bead of silicone between surface and fitting is recommended.
These notes must be observed for the Aqualux Warranty to apply.

You can download your specific wiring diagram from the table and links on page 38

Range	Recessed Fittings
LumenaPro	AQL-180 / AQL-980 / AQL-985
Lumena	–
Phoenix	–
Hydra	AQL-415
Artisan	–
AQL-600	–
AQL-900	AQL-910 / AQL-911 / AQL-912 / AQL-913 / AQL-931
Extrusion	–
String	–

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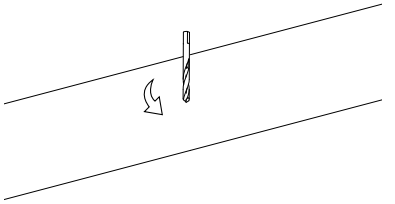
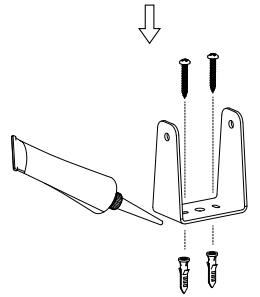
Considerations

- Install mounting bracket on flat surface for a secure mount.
- The depth of the hole nessecary for the fitting is subject to the safe space needed for wire connections.
- Never force or bend input wires.
- May have to remove light from bracket pins.
- Use the supplied templates on pages 24-35.



1. Cut hole

- Use the correct drill bit for your substrate.
- Hole diameter is subject to the screws and wiring.
- Plugs for the screws may be necessary, determined by the substrate.
- For added strength a thin bead of silicone under and around the mounting bracket may be used.

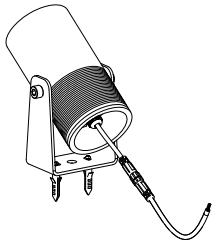


2. Wiring

- Connect the pre installed wiring (bare wire connection needs to be water proof with heatshrink and or suitable covering).
- Conduit may be used if necessary. All joins must be IP rated.
- For your wiring diagram, go to page 38 and click the link for your specific fitting.

3. Set the fitting

- Secure fitting to the mounting bracket.



Wire Hole Diameters	Screw Hole Diameter	Screw Hole Depth	Mounting Bracket
10mm	8mm	40mm	AQL-180
10mm	10mm	50mm	AQL-980 / AQL-985
–	6mm	30mm	AQL-415
–	8mm	40mm	AQL-910 / AQL-911 / AQL-912 / AQL-913 / AQL-931

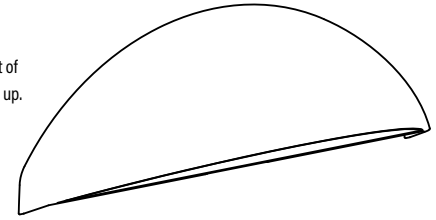
Surface Mount Plate installation - **Step / Wall**

What is a Plate mount fitting?

Usually with a mounting plate which is screwed to a substrate. The mounting plate will have holes for screws, and in come cases a centre hole for wires. Placement of the fitting has to be considered prior to some mounting, allowing for wiring connections.
Below is a list of Aqualux plate mount fittings which use a comparable installation method.
Installation instructions on the adjacent page. Please note that these instructions constitute general advice only. Your specific installation requirements may vary and should be tailored to suit your install.

Before you start your installation

- Thank for purchasing an Aqualux Lighting product.
- Please follow these instructions carefully.
- It is recommended to wash the luminaire with fresh water and a little bit of dish soap from time to time to stop salt and corrosive elements building up.
- Your warranty and safety depends on it.
- All wiring must be in accordance with local regulations.
- If a fault or failure occurs, please contact Aqualux to discuss.
- Do not attempt to service the product.



SAMPLE IMAGE FOR DISPLAY PURPOSES ONLY

24V AC / DC | IP67

Correct installation & care for your warranty

Check product label for correct power requirements.
Do not connect to mains (240V), unless specifically stated.
Do not "hot-plug" lighting fixture - i.e. do not connect to energised power supply.
Ensure cable termination is fully sealed and all joins are heat-shrinked or encapsulated.
Ensure cable glands are hand tightened and end caps secured after transit & installation (if applicable).
Do not attempt to field service Aqualux fittings without prior instruction.
Do not look directly at LED light source - it will damage your eyes!
For surface mount, a bead of silicone between surface and fitting is recommended.
These notes must be observed for the Aqualux Warranty to apply.

You can download your specific wiring diagram from the table and links on page 38

Range	Recessed Fittings
LumenaPro	–
Lumena	AQL-220 / AQL-240
Phoenix	AQL-510 / AQL-520
Hydra	AQL-417 / AQL-418 / AQL-419 / AQL-420
Artisan	–
AQL-600	AQL-600 / AQL-601 / AQL-602 / AQL-603
AQL-900	–
Extrusion	–
String	–

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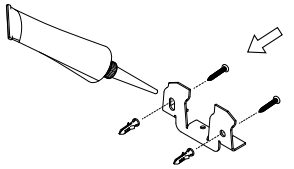
Considerations

- Install mounting plate on flat surface for a secure mount.
- The depth of the hole nessecary for the fitting is subject to the safe space needed for wire connections.
- Use the supplied templates on pages 24-35.
- Never force or bend input wires.

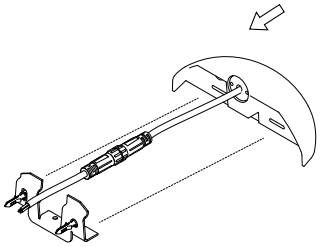
1. Drill hole

- Use the correct drill bit for your substrate.
- Hole diameter is subject to the screws and wiring.
- Plugs for the screws may be necessary, determined by the substrate.
- For added strength a thin bead of silicone under and around the mounting bracket may be used.



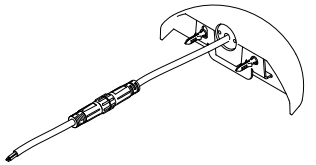
2. Wiring

- Connect the pre installed wiring (bare wire connection needs to be water proof with heatshrink and or suitable covering).
- Conduit may be used if necessary. All joins must be IP rated.
- For your wiring diagram, go to page 38 and click the link for your specific fitting.



3. Set the fitting

- Secure fitting to the mounting plate.



Wire Hole Diameters	Screw Hole Diameter	Screw Hole Depth	Mounting Plate
20mm	8mm	40mm	AQL-510 / AQL-520
10mm	3mm	25mm	AQL-417 / AQL-418
10mm	5mm	30mm	AQL-419 / AQL-420 / AQL-600 / AQL-601 / AQL-602 / AQL-603 / AQL-220 / AQL-240

Spike installation - **Soil**

What is a Spike fitting?

A Spike Light is a light fitting with a spike for use in soil.
Placement of the fitting has to be considered allowing for wiring connections.
Below is a list of Aqualux Spike Lights which use a comparable installation method.
Installation instructions on the adjacent page. Please note that these instructions constitute general advice only. Your specific installation requirements may vary and should be tailored to suit your install.

Before you start your installation

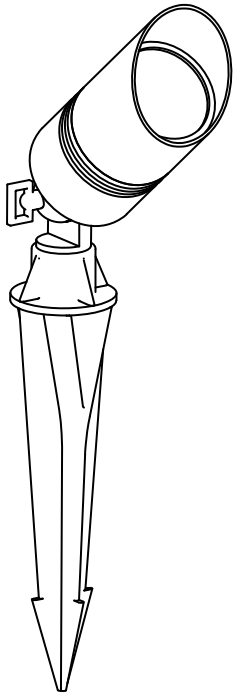
- Thank for purchasing an Aqualux Lighting product.
- Please follow these instructions carefully.
- Your warranty and safety depends on it.
- All wiring must be in accordance with local regulations.
- If a fault or failure occurs, please contact Aqualux to discuss.
- It is recommended to wash the luminaire with fresh water and a little bit of dish soap from time to time to stop salt and corrosive elements building up.
- Do not attempt to service the product.

24V AC / DC | **IP67**

Correct installation & care for your warranty

Check product label for correct power requirements.
Do not connect to mains (240V), unless specifically stated.
Do not "hot-plug" lighting fixture - i.e. do not connect to energised power supply.
Ensure cable termination is fully sealed and all joins are heat-shrinked or encapsulated.
Ensure cable glands are hand tightened and end caps secured after transit & installation.
Do not attempt to field service Aqualux fittings without prior instruction.
Do not look directly at LED light source - it will damage your eyes!
For surface mount, a bead of silicone between surface and fitting is recommended.
These notes must be observed for the Aqualux Warranty to apply.

You can download your specific wiring diagram from the table and links on page 38



SAMPLE IMAGE FOR DISPLAY PURPOSES ONLY

Range	Recessed Fittings
LumenaPro	AQL-181
Lumena	AQL-105 / AQL-115 / AQL-116 / AQL-120 / AQL-122 / AQL-130 / AQL-132 / AQL-135 /
Phoenix	AQL-510 / AQL-520
Hydra	AQL-400 / AQL-411 / AQL-412 / AQL-413 / AQL-414 / AQL-416 / AQL-450 / AQL-451 / AQL-452 / AQL-455
Artisan	AQA-106
AQL-600	–
AQL-900	–
Extrusion	–
String	–

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Considerations

- Install MR16 Globe into your Spike Light (List of spikes that need globes are listed below).
- Your spike light should be on a flat or slightly raised surface to allow water runoff and minimise water pooling.
- Good drainage is nessecary, gravel and sand is recommended.
- The depth of the hole nessecary for the spike light is subject to the safe space needed for wire connections.
- Never force or bend input wires.
- Use the supplied templates on pages 24-35.

1. Wiring

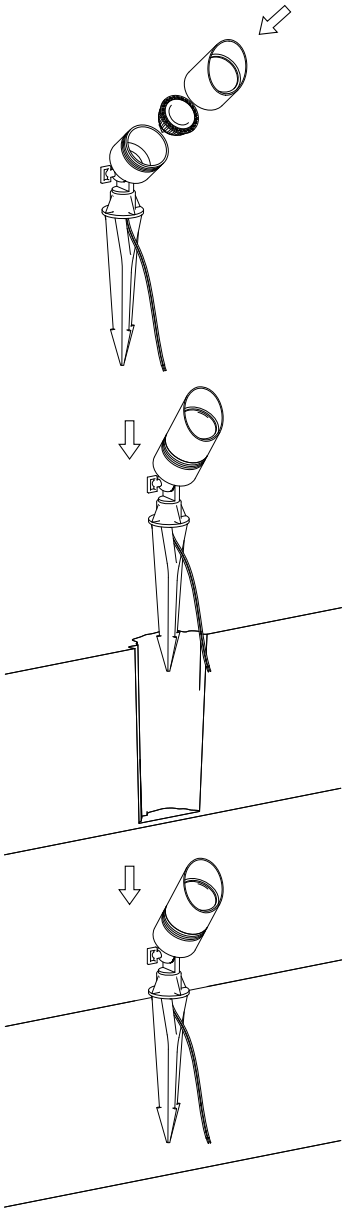
- Connect the pre installed wiring (bare wire connection needs to be water proof with heatshrink and or suitable covering).
- Conduit may be used if necessary. All joins must be IP rated.
- For your wiring diagram, go to page 38 and click the link for your specific fitting.

2. Set the fitting

- Dry fit the fitting first, making sure connections are working.
- Firmly push down on the spike light into the soil.

3. Backfill the soil

- Backfill the soil.
- Compact the soil for a firm hold.



MR16 Globe	Inegrated LED	Spike Lights
Not Supplied	–	AQA-106 / AQL-400 / AQL-409 / AQL-410 / AQL-411 / AQL-412 / AQL-413 / AQL-414
Pre-installed	–	AQL-450 / AQL-451 / AQL-452
–	Yes	AQA-106 / AQL-105 / AQL-106 / AQL-115 / AQL-116 / AQL-120 / AQL-122 / AQL-130 / AQL-132 / AQL-135 / AQL-181 / AQL-416 AQL-455

Surface Mounting Plate installation - **All Substrates**

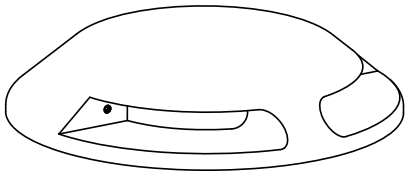
What is a Surface Mounting fitting?

Usually with a mounting plate which is screwed to a substrate. The mounting plate will have holes for screws, and in come cases a centre hole for wires. Placement of the fitting has to be considered prior to mounting, allowing for wiring connections. Below is a list of Aqualux plate mount fittings which use a comparable installation method. Installation instructions on the adjacent page. Please note that these instructions constitute general advice only. Your specific installation requirements may vary and should be tailored to suit your install.

Before you start your installation

- Thank for purchasing an Aqualux Lighting product.
- Please follow these instructions carefully.
- Your warranty and safety depends on it.
- All wiring must be in accordance with local regulations.
- If a fault or failure occurs, please contact Aqualux to discuss.
- It is recommended to wash the luminaire with fresh water and a little bit of dish soap from time to time to stop salt and corrosive elements building up.
- Do not attempt to service the product.

24V AC / DC | IP67



SAMPLE IMAGE FOR DISPLAY PURPOSES ONLY

Correct installation & care for your warranty

Check product label for correct power requirements.
Do not connect to mains (240V), unless specifically stated.
Do not "hot-plug" lighting fixture - i.e. do not connect to energised power supply.
Ensure cable termination is fully sealed and all joins are heat-shrinked or encapsulated.
Ensure cable glands are hand tightened and end caps secured after transit & installation.
Do not attempt to field service Aqualux fittings without prior instruction.
Do not look directly at LED light source - it will damage your eyes!
For surface mount, a bead of silicone between surface and fitting is recommended.
These notes must be observed for the Aqualux Warranty to apply.

You can download your specific wiring diagram from the table and links on page 38

Range	Recessed Fittings
LumenaPro	–
Lumena	AQL-175 / AQL-176
Phoenix	AQL-565
Hydra	–
Artisan	–
AQL-600	–
AQL-900	–
Extrusion	–
String	–

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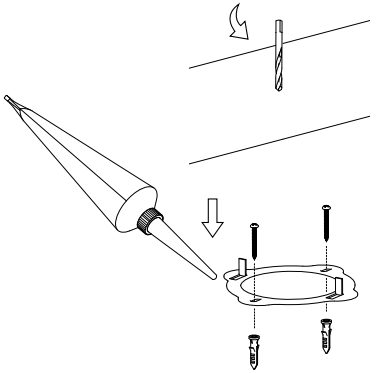
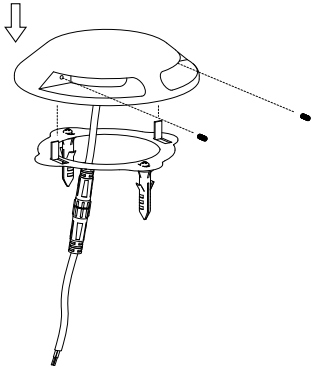
Considerations

- Install mounting plate on flat surface for a secure mount.
- The depth of the hole nessecary for the fitting is subject to the safe space needed for wire connections.
- Never force or bend input wires.
- Use the supplied templates on pages 24-35.



1. Drill hole

- Use the correct drill bit for your substrate.
- Hole diameter is subject to the screws and wiring.
- Plugs for the screws may be necessary, determined by the substrate.
- For added strength a thin bead of silicone under and around the mounting bracket may be used.

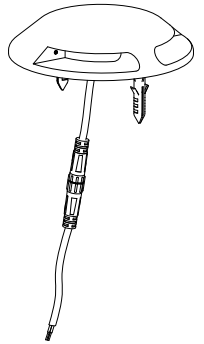


2. Wiring

- Connect the pre installed wiring (bare wire connection needs to be water proof with heatshrink and or suitable covering).
- Conduit may be used if necessary. All joins must be IP rated.
- For your wiring diagram, go to page 38 and click the link for your specific fitting.

3. Set the fitting

- Secure fitting to the mounting plate.



Wire Hole Diameters	Screw Hole Diameter	Screw Hole Depth	Mounting Plate
20mm	6mm	30mm	AQL-565
20mm	6mm	30mm	AQL-175 / AQL-176

Surface Mount installation - **All Substrates**

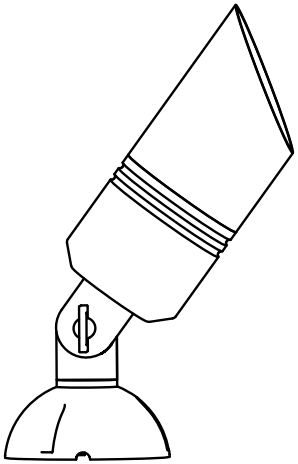
What is a Surface mount fitting?

Direct Mounting of the fitting which is screwed to a substrate. The fitting will have holes for screws, and a hole for wires. Placement of the fitting has to be considered prior to the mounting, allowing for wiring connections. Below is a list of Aqualux bracket mount fittings which use a comparable installation method. Installation instructions on the adjacent page. Please note that these instructions constitute general advice only. Your specific installation requirements may vary and should be tailored to suit your install.

Before you start your installation

- Thank for purchasing an Aqualux Lighting product.
- Please follow these instructions carefully.
- Your warranty and safety depends on it.
- All wiring must be in accordance with local regulations.
- If a fault or failure occurs, please contact Aqualux to discuss.
- It is recommended to wash the luminaire with fresh water and a little bit of dish soap from time to time to stop salt and corrosive elements building up.
- Do not attempt to service the product.

24V AC / DC | IP67



SAMPLE IMAGE FOR DISPLAY PURPOSES ONLY

Correct installation & care for your warranty

Check product label for correct power requirements.
Do not connect to mains (240V), unless specifically stated.
Do not "hot-plug" lighting fixture - i.e. do not connect to energised power supply.
Ensure cable termination is fully sealed and all joins are heat-shrinked or encapsulated.
Ensure cable glands are hand tightened and end caps secured after transit & installation.
Do not attempt to field service Aqualux fittings without prior instruction.
Do not look directly at LED light source - it will damage your eyes!
For surface mount, a bead of silicone between surface and fitting is recommended.
These notes must be observed for the Aqualux Warranty to apply.

You can download your specific wiring diagram from the table and links on page 38

Range	Recessed Fittings
LumenaPro	–
Lumena	–
Phoenix	–
Hydra	AQL-401 / AQL-402 / AQL-403 / AQL-404 / AQL-405 / AQL-406 / AQL-407 / AQL-408
Artisan	AQA-101 / AQA-102 / AQA-103 / AQA-104
AQL-600	–
AQL-900	–
Extrusion	–
String	–

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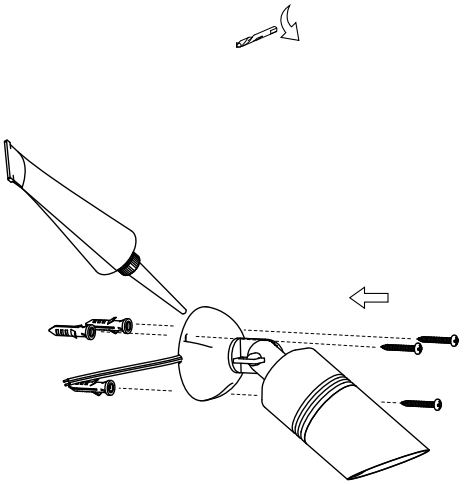
Considerations

- Install Direct mount on flat surface for a secure mount.
- The depth of the hole nessecary for the fitting is subject to the safe space needed for wire connections.
- Never force or bend input wires.
- Use the supplied templates on pages 24-35.

1. Cut hole

- Use the correct drill bit for your substrate.
- Hole diameter is subject to the screws and wiring.
- Plugs for the screws may be necessary, determined by the substrate.
- For added strength a thin bead of silicone under and around the mounting bracket may be used.

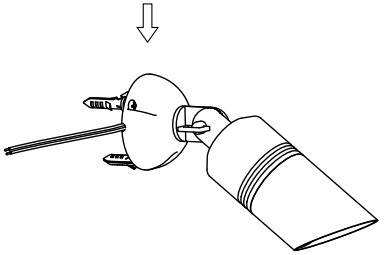


2. Wiring

- Connect the pre installed wiring (bare wire connection needs to be water proof with heatshrink and or suitable covering).
- Conduit may be used if necessary. All joins must be IP rated.
- For your wiring diagram, go to page 38 and click the link for your specific fitting.

3. Set the fitting

- Secure fitting to the substrate.

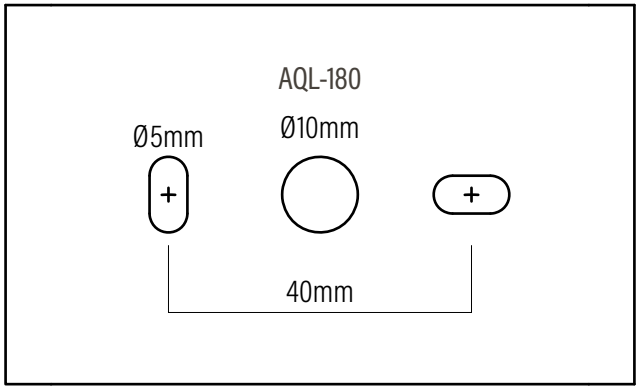


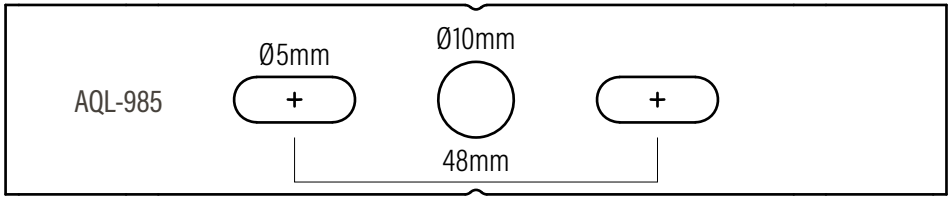
Wire Hole Diameters	Screw Hole Diameter	Screw Hole Depth	Mounting Bracket
10mm	8mm	40mm	AQL-180
10mm	10mm	50mm	AQL-980 / AQL-985
–	6mm	30mm	AQL-415

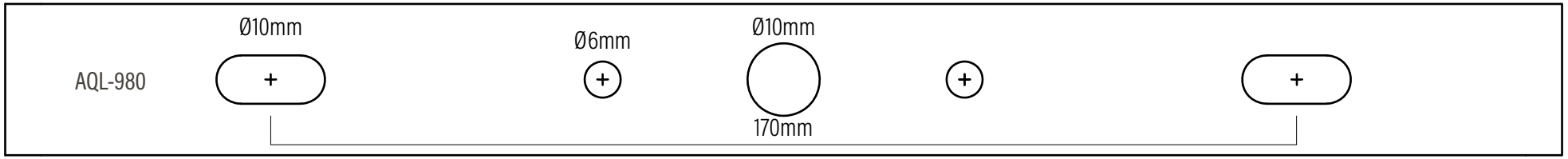
Mounting - **templates**

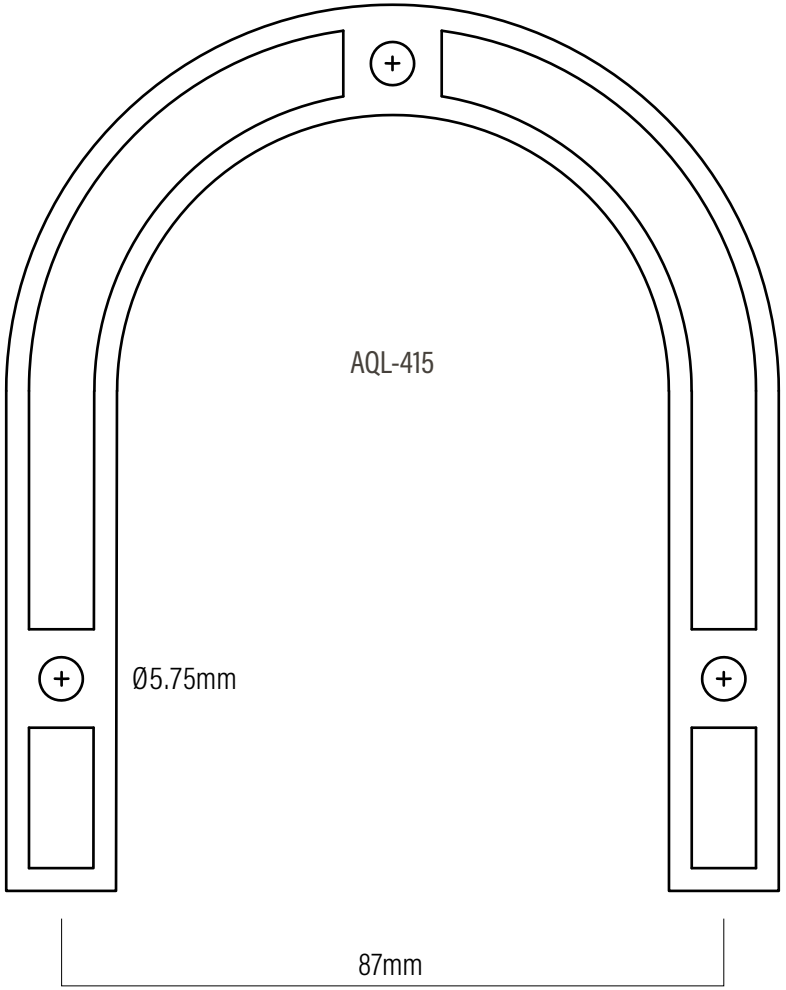
Directions

All fitting cut out templates are actual size (100%). After printing your template, make sure the box to the right is 10mm high x 10mm wide.









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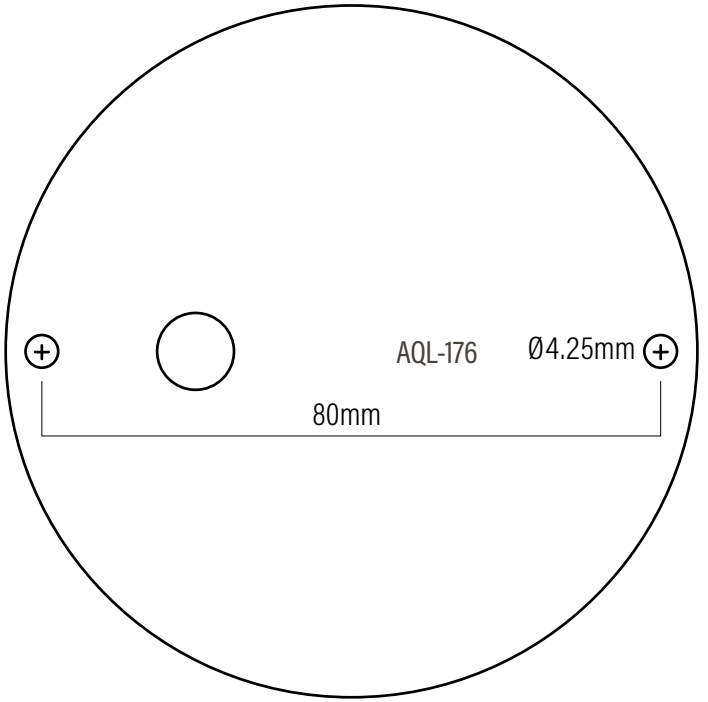

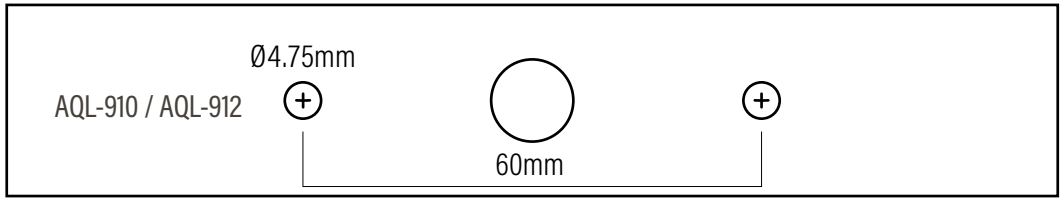

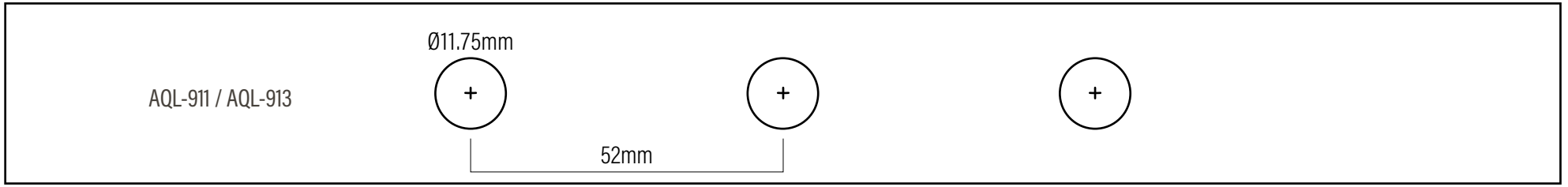

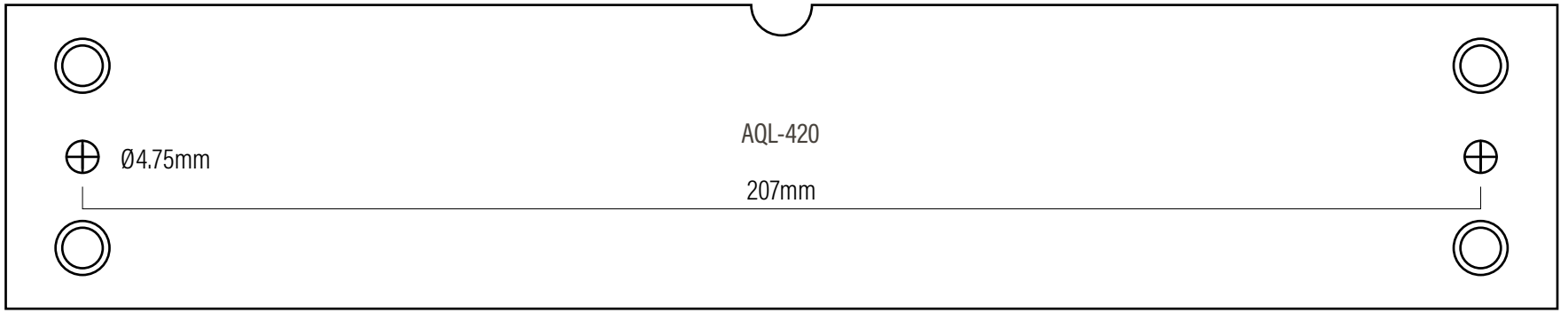

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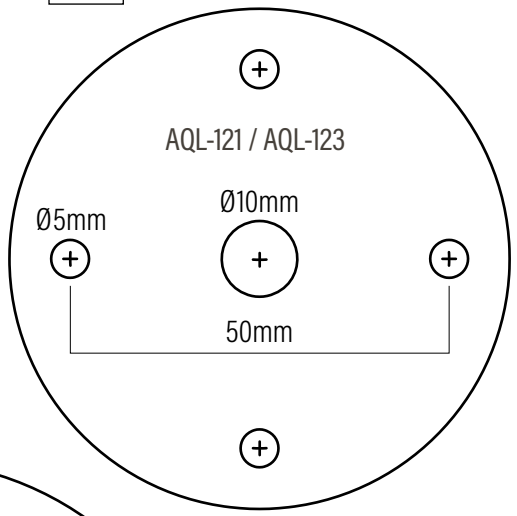

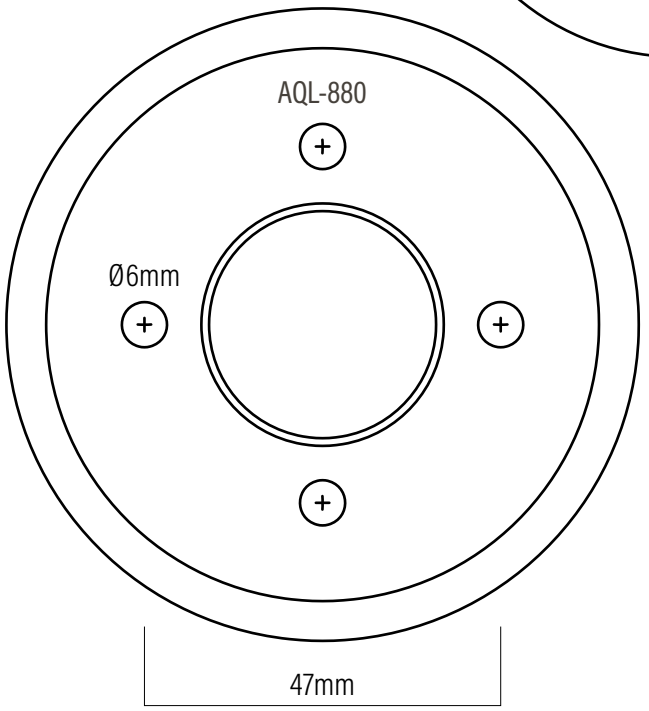

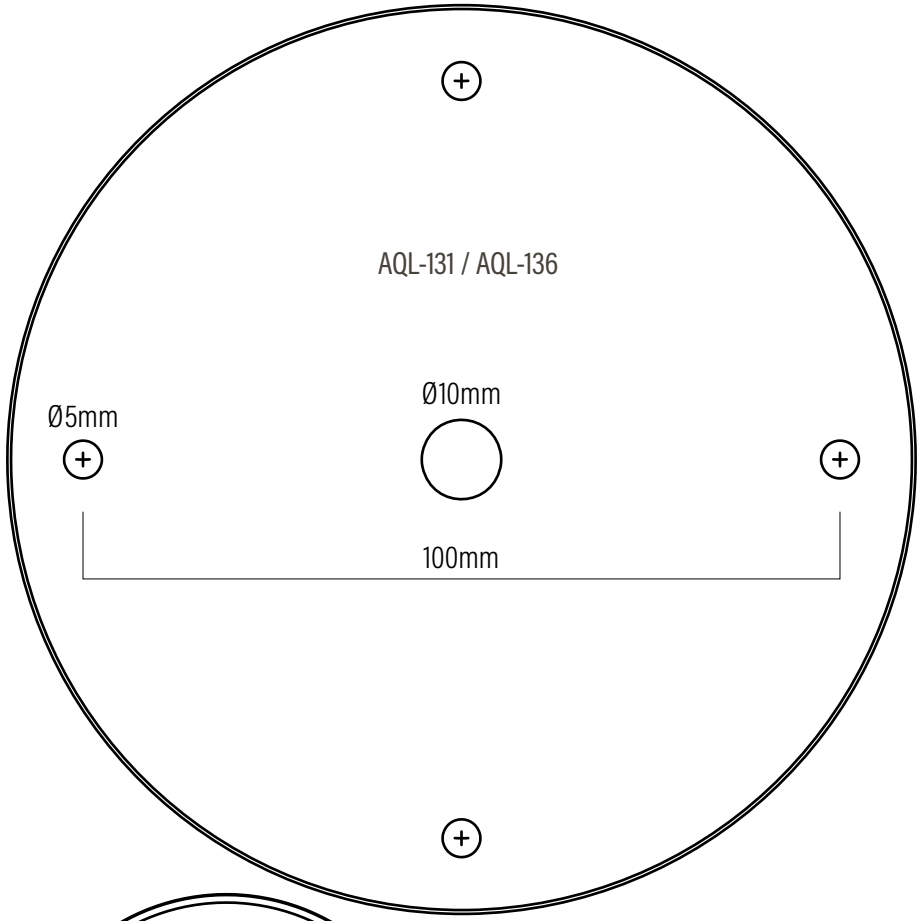

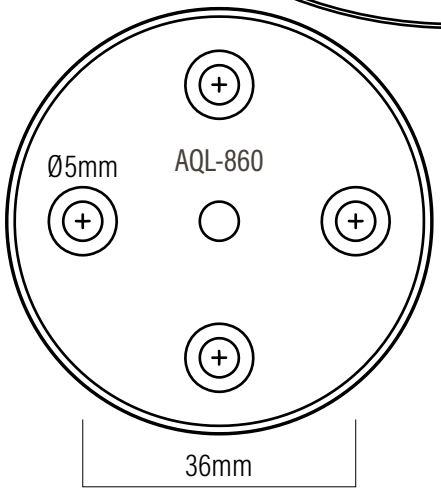

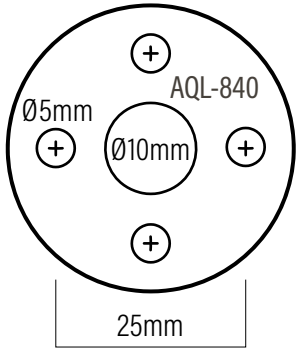

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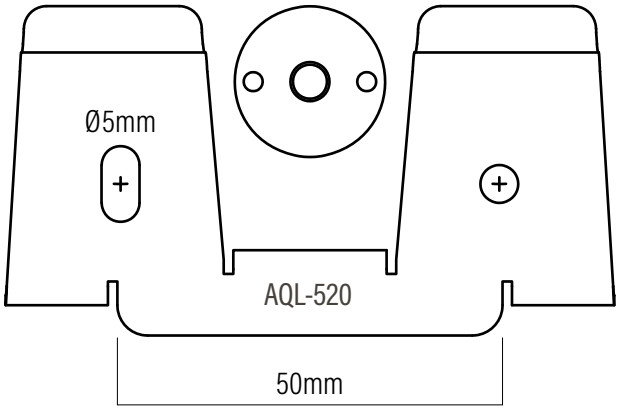
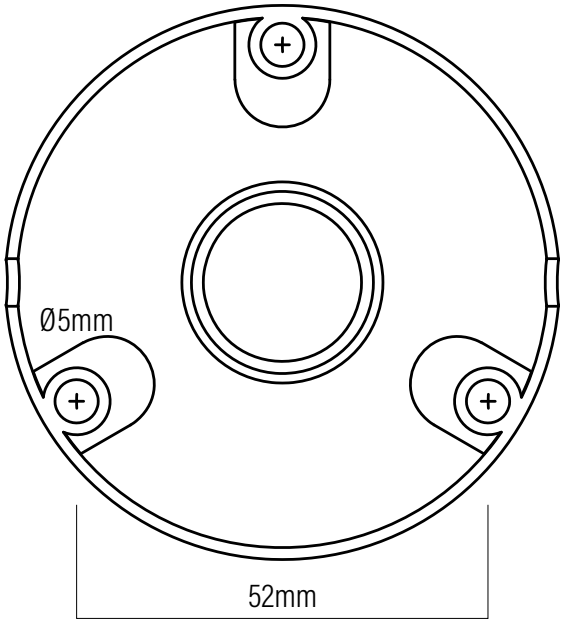
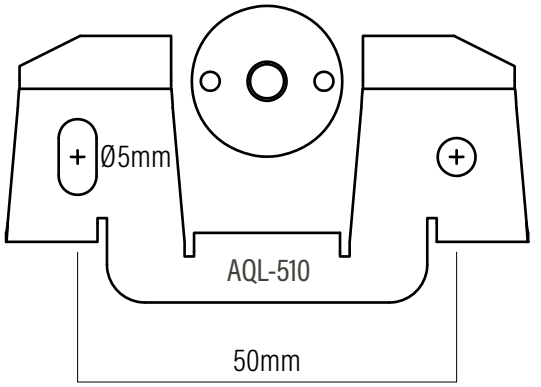
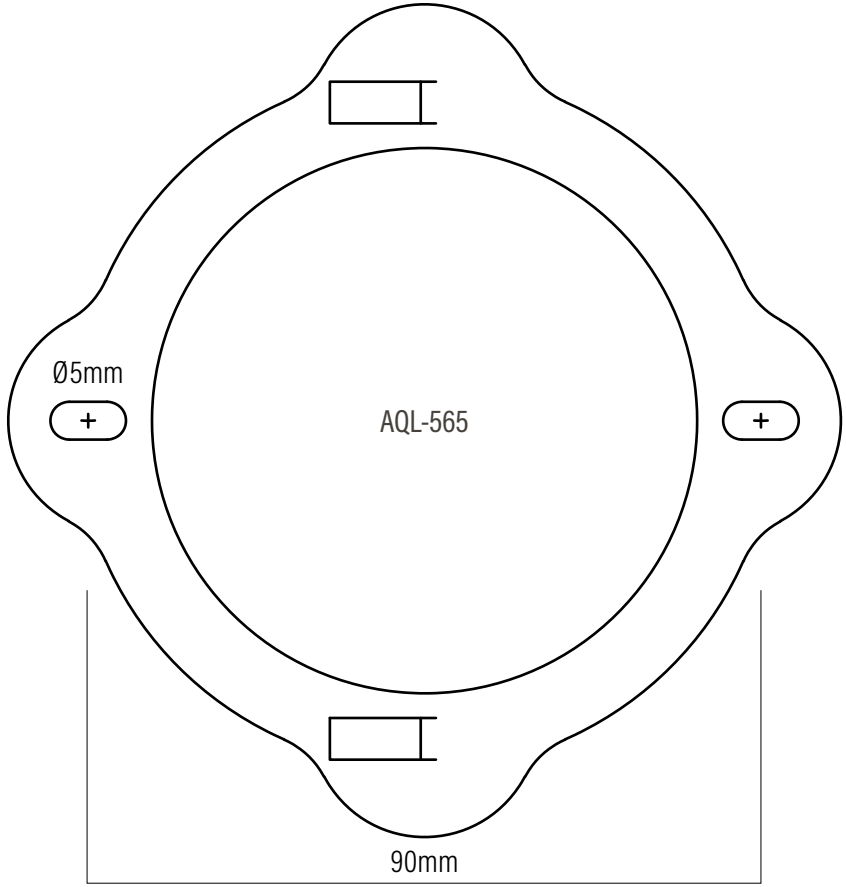




AQL-401 / AQL-402 / AQL-403 / AQL-404 / AQL-405 / AQL-406 / AQL-407 / AQL-408





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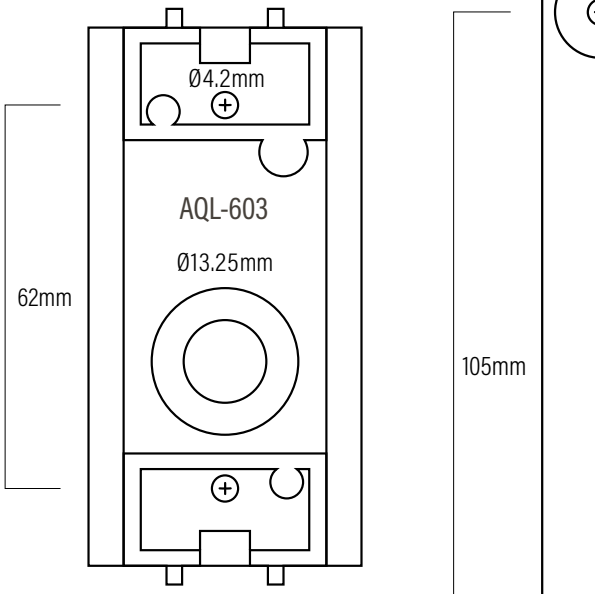

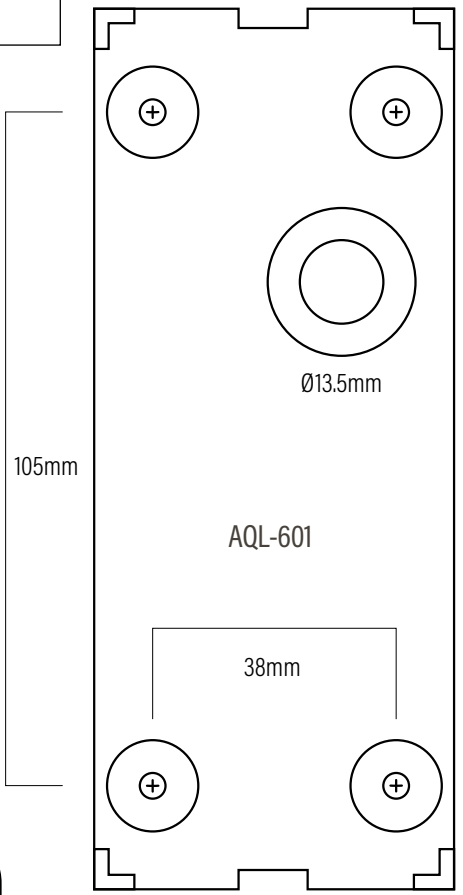

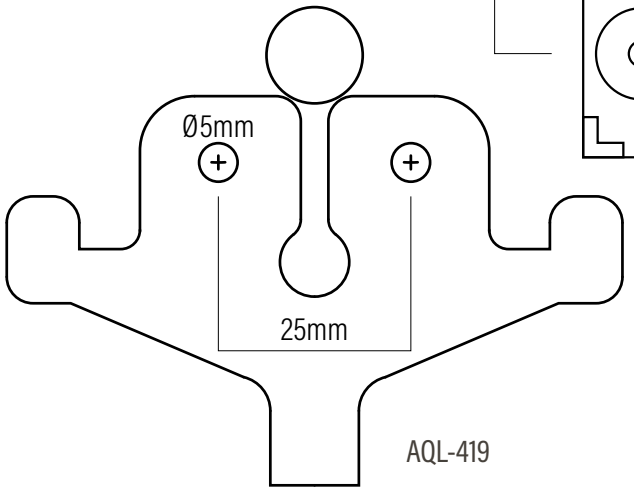

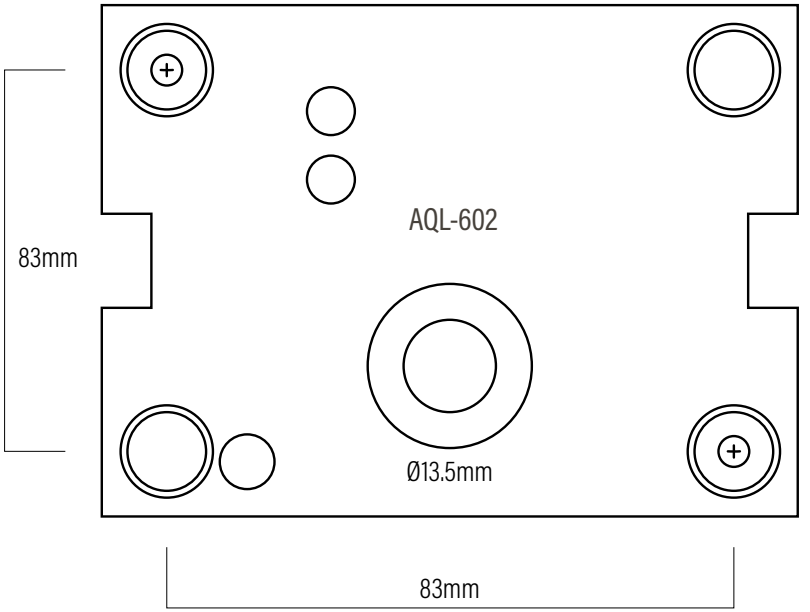

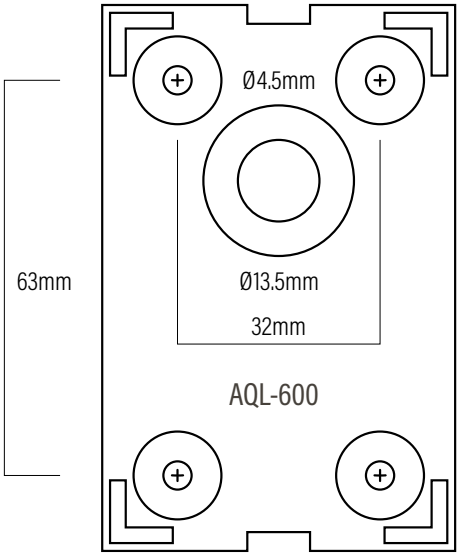

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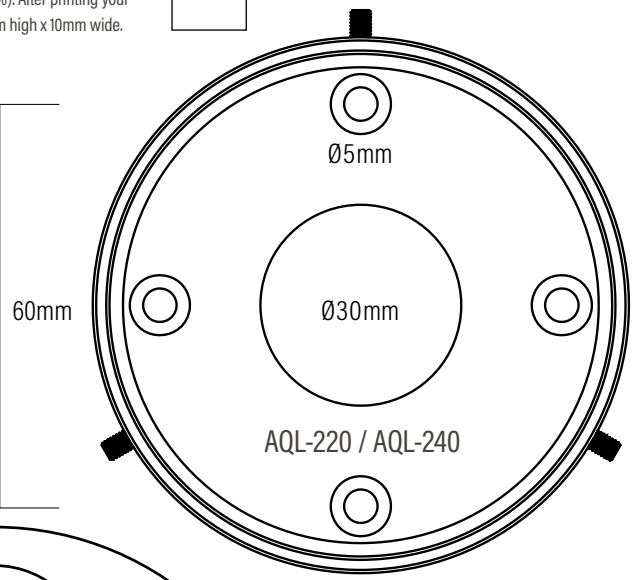

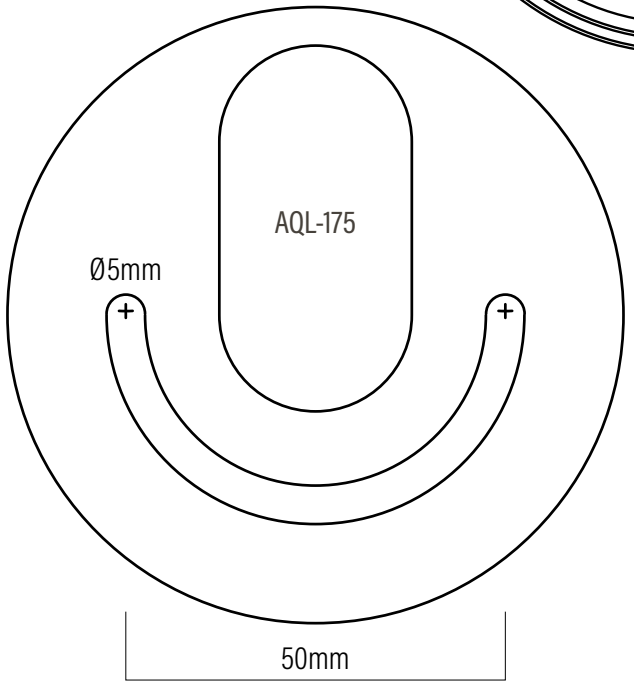

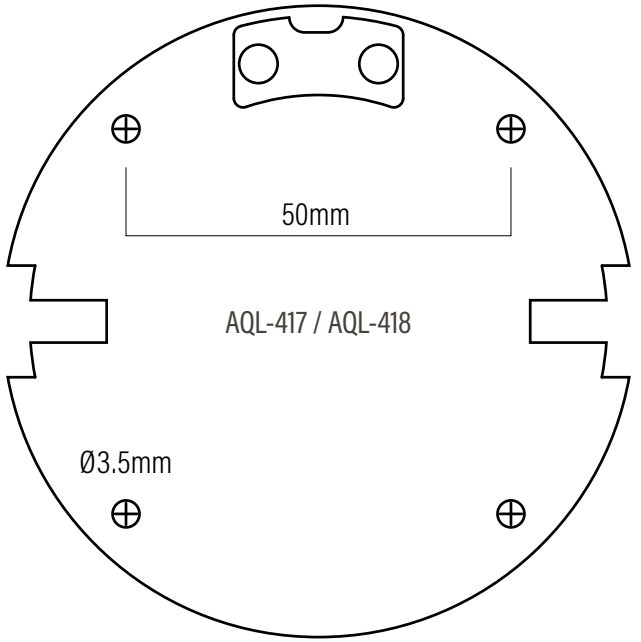

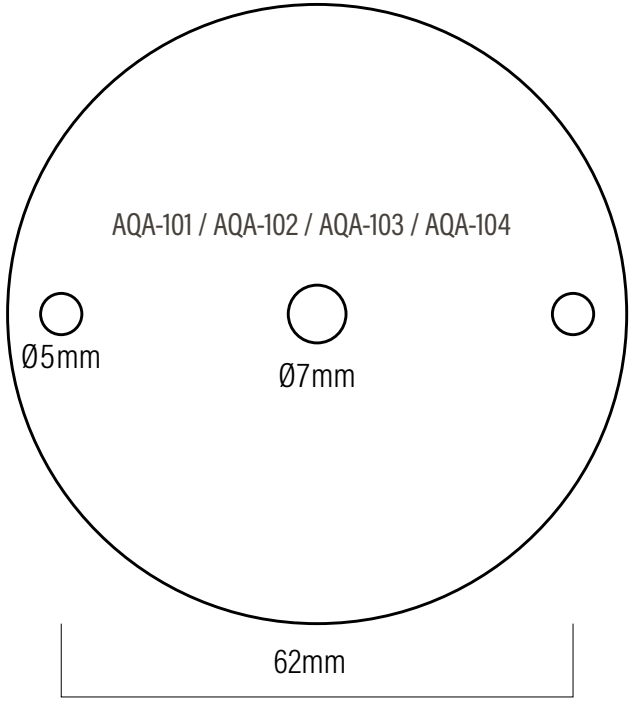

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Keeping you grounded

We've put together a range of wiring diagrams covering many of our easy and some of our more complicated setups.

Click the description that suits your wiring needs to download your wiring diagram.

Wiring Diagram Contents List

1	Mono - 12 ~ 24V AC - 2 Wire
2	Mono - 24V DC - 2 Wire
3	Mono - 24V DC - 3 Wire - DALI Dimming - Aqualux Driver
4	RGBW - 24V DC - 6 Wire - DALI Dimming
6	RGBW - 24V DC - 5 Wire - T4 Remote
7	RGBW - 24V DC - 6 Wire - T4 Remote - Aqualux Driver
8	Tunable White - 24V DC - 3 Wire - PWM Dimming - T2 Remote
9	RGB - 24V DC - 4 Wire - PWM Dimming - T3 Remote
12	RGBW - 24V DC - 5 Wire - WiFi 106 + F45A
15	RGBW - 24V DC - 6 Wire - WiFi 106 + F45A
18	RGBW - 24V DC - 5 Wire - LT904 DMX Dimming
25	RGBW - 24V DC - 5 Wire - Dynamic Pixel DMX Dimming
26	Mono - Constant Current - 2 Wire - 1-10V Dimming
27	RGBW - 24V DC - 6 Wire - Casambi Connection
28	RGBW - 24V DC - 6 Wire - DMX Dimming
29	RGBW - 24V DC - 6 Wire - Philips Hue Connection
30	Mono - 24V AC - 2 Wire - Phasecut Dimming
31	Mono - 24V DC - 2 Wire - 1-10V Dimming
32	Mono - 24V DC - 4 Wire - DALI Integrated Dimming
33	Mono - 24V DC - 2 Wire - PWM Dimming
35	RGBW - 12V DC - 5 Wire - Dynamic Pixel DMX Dimming
36	Mono - 24V DC - 2 Wire - Single Ended - No Dimming
37	Mono - 24V DC - 2 Wire - Double Ended - No Dimming
38	Mono - 24V DC - 2 Wire - Constant Voltage - DALI Dimming

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Dimming and controlling Aqualux Lighting

- **Dimming LED lighting is not as simple as incandescent lighting.**
- **Newer systems such as DALI are more reliable and more efficient.**
- **Simple, standlone digital dimming systems are cost effective and easy to install.**

3-Wire Dimming (PWM Signal)

The preferred method for controlling wired LED fixtures, where 2-wires carry the power and a 3rd wire carries the dimming / control signal. When controlled in this way, LED fixtures can provide optimal efficiency, stability and dimming range. Many Aqualux fixtures support 3-wire dimming which can be easily interfaced to DALI, DMX or wireless control systems.

2-Wire Dimming (PWM Powerline)

Dimming LED products using only 2-wires requires that the fixtures or products are Constant Voltage in nature and compatible with this method. This includes most LED strip, LED festoon and some specific LED fixtures that are designed to be used with a 2-wire system. Please check individual fixture datasheets and wiring guides before assuming 2-wire dimming will work.

Phase Cut Dimming

Phasecut (including TRIAC) dimming is not recommended for LED lighting systems. Some Aqualux products are compatible as noted below, however the majority are not. It is an outdated approach to controlling LED lighting loads with several issues (dimming ratio issues, off-peak signal interference) and there are several newer and better methods that should be used instead.

Aqualux 10V PWM Dimming

Aqualux fittings with 10V PWM dimming are controlled via a separate dimming signal wire when it is connected to a compatible PWM source such as the DAP-04 DALI interface. **This is not the same as 0-10V or 1-10V DC analog dimming. See 'Technical Information' for more information.**

Aqualux PWM Dimming

10V PWM Voltage
1% - 100%
500Hz

1. The dimming capability of Aqualux products is determined by the control gear code and power source.
2. Selecting the right option is important if you require a form of dimming for your lighting system.
3. To determine Aqualux dimming compatibility, locate the control gear code 'B' in your product code.
4. Refer to the table below to determine the dimming capabilities and what control gear is needed.

AQL-XXX-AA-**B**CCCDDEEF

Code and table definitions

CONTROL GEAR (B)

Code 'B" in our product code scheme determines the input voltage, dimming capability and wiring requirements.

INPUT VOLTAGE

Refers to the voltage and current type needed to supply the light.

DIMMING

If the driver is capable of dimming, what style of dimming it is and other details.

RECOMMENDED HARDWARE

Example equipment required to operate the particular configuration and any dimming capability.

NOTES

Particular instructions directly related to the fitting and selected components.

WIRING DIAGRAMS

Overview of the electrical circuit, the relative position and arrangement of fittings and control gear.

Contact Aqualux if you have any questions regarding dimming, prior to purchasing or installation

Aqualux Internal Control Gear - Dimming Reference

CODE (B)	INPUT VOLTAGE	DIMMING CAPABILITY	RECOMMENDED HARDWARE	NOTES	WIRING DIAGRAM
X	12–24V AC 24V DC. MultiVoltage.	DALI (via PWM 10V Signal Dimming) (with 3-wire products)	Requires Meanwell DAP-04 (DALI/PWM Interface). Can use standalone DALI dimmers or with DALI application controllers.	PWM Signal dimming. Requires PWM wire to be connected. No PWM = 100% Output. Single Channel 10V PWM "High Side" dimming.	3
D	24V AC.	TRIAC / Phase Cut Dimming	Requires AQO 24V AC Power Source. Compatible Phase Cut Dimmers include: Clipsal UDM450E, Diginet MEDM.	Dimming performance is best when load is > 80% of power supply rating.	30
C	Constant Current.	Control Gear Dependant (DALI/DMX/1-10/PWM)	Requires Constant Current Power Supply. Suitable power supplies include: Meanwell LCM, ELG-C and HLG-C series.	Lights must be wired in series. Circuit voltage must be kept below SELV DC maximums (120V). Dimming control options depends on the power supply.	26
Z	24V DC.	4CH PWM Dimming, Common Anode	Suitable control modules include LTECH T4 Modules and DMX Interfaces.	4 Channel "Low Side" PWM dimming for RGBW systems. Requires 500Hz (nominal) PWM signal source with common 24V+ anode. No PWM = 0% Output.	7, 15, 23, 27, 28, 29
E	24V DC.	PWM Dimming (Power)	Suitable control modules include LTECH T1 CV, AQD PWM Dimmers. Suitable power supplies include Meanwell HLG-B, Meanwell PWM drivers.	Requires PWM dimmer module or PWM dimming power supply. Power supply will also offer additional dimming methods (0-10V, DALI, DMX etc).	7, 8, 33
B	24V DC.	DALI / PWM (10V) Signal Dimming. (with 3-wire products)	24V DC Only (Not dimmable on AC). Utilises the Meanwell DAP-04 (DALI Interface). Can use standalone DALI dimmers or with DALI application controllers.	PWM Signal dimming. Requires PWM wire to be connected. No PWM = 100% Output. Single Channel 10V PWM "High Side" dimming.	3
L	24V DC.	DALI Dimming, Integral	Integrated DALI compatible LED driver. Requires 2-wire DALI signal control in addition to 24V DC power. Requires DALI application controller or standalone dimmer control unit.	Check DALI wiring regulations when used together with SELV lighting systems.	32
M	MR16.	Lamp Dependant.	Lamp Dependant.	Lamp Dependant.	-
G	GU10.	Lamp Dependant.	Lamp Dependant.	Lamp Dependant.	-
F	240V AC.	Control Gear Dependant.			-
H	24V AC/DC.	PWM (Power) Dimming	Suitable control modules include LTECH T1 CV, AQD PWM Dimmers. Suitable power supplies include Meanwell HLG-B dimming power supplies.	24V DC PWM Power dimming. Requires PWM dimmer module or PWM dimming power supply.	-
J	12V DC.	PWM (Power) Dimming	Suitable control modules include LTECH T1 CV, AQD PWM Dimmers. Suitable power supplies include Meanwell HLG-B dimming power supplies.	12V DC PWM Power dimming possible. Requires PWM dimmer module or PWM dimming power supply.	-
K	12V DC.	Non Dimming.			-

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LED Strip and String Lighting reference guide

PRODUCT GROUP	INPUT VOLTAGE	DIMMING CAPABILITY	RECOMMENDED HARDWARE	WIRING DIAGRAM
AQS NEON FLEX AND COB STRIP (MONO) AQF FESTOON AQF FAIRY	24V DC	PWM (Power) Dimmable.	**DALI Dimming** - 24V DALI Compatible PSU eg. Meanwell -DA PSU - DALI Standalone Dimmer eg. AQD-400-ZEN - or integrated DALI system **Phasecut Dimming** - 24V Phasecut Compatible PSU eg. AQD-PS-PDV Series - Compatible phasecut dimmer eg. Diginet MEDM **SELV PWM Dimming** - 24V Non-dimmable PSU eg. AQD24 series - Low-voltage PWM Dimmer eg. AQD-400-T3CV Series **0-10V Dimming** - 24V 0-10V Compatible PSU eg. Meanwell HLG-B Series - 0-10V Dimming Unit eg. AQD-400-DIM-001 **DMX Dimming** - 24V Non-dimmable PSU eg. AQD24 series - DMX > PWM Interface Module eg. AQD-400-LT844 - DMX Controller	31
AQF FESTOON	24V AC	TRIAC / Phase Cut Dimming.	AQO 24V AC Power Supply + Compatible Phase Cut Dimmer eg. Clipsal UDM450E, Diginet MEDM	30
AQS NEON FLEX AND COB STRIP (RGB/RGBW)	24V DC	3CH / 4CH PWM (Power) Dimmable RGB/RGBW Controller Reqd.	**DMX Control** - 24V Non-dimmable PSU eg. AQD24 series - DMX > PWM Interface Module eg. AQD-400-LT844 - DMX Controller **Remote RGB/RGBW Control** - 24V Non-dimmable PSU eg. AQD24 series - Low-voltage PWM Dimmer eg. AQD-400-T3CV Series - RF Remote Control eg. AQD-400-T3/T4	4, 6, 11, 13, 17, 19, 20, 21, 22

CBUS Dimming

The ability of CBUS to dim LED lighting system depends on the modules available within the CBUS system and the type of dimming required by the LED driver or power supply.

Dimming with CBUS:

- Use a Phasecut CBUS dimming module with a compatible Phasecut power supply
- Use a CBUS/DALI gateway and a DAP-04 for compatability with Aqualux 10V PWM dimming.

Universal (Phasecut) Dimming Module
C-Bus DIN Rail Mounted DALI Gateway for 2 Dali NetworksItem Number: 5502DAL

CBUS / DALI Gateway
DIN Rail Mounted, Universal, 240V AC, 4 Channel, 2.5A Item Number: L5504D2UP

Technical Information

PWM (Power) DIMMING

PWM power dimming directly modifies the output of a power supply via PWM (Pulse-width modulation). It controls how often the current is on or off hundreds of times per second.

As the human eye cannot perceive frequencies this fast, the effect is an apparantly stable variation of the output light level.

PWM power dimming can be achieved by using compatible power supplies that will require their own dimming control input. It can also be achieved by using a PWM module that sits between the power supply and lighting product and modifies the power to control the PWM dimming.

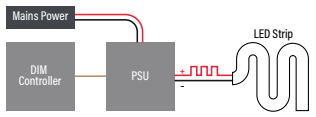
PWM Power dimming is common in LED strip lighting products and operates across any number of channels (eg. White, Tuneable White, RGB, RGBW).

The benefits of PWM power dimming are that it is relatively straightforward requiring no additional wires, that it works independent of the load rating of the power supply and that it does not require additional signal wires.

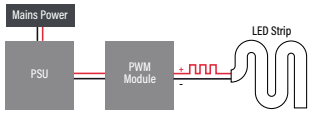
The drawbacks include that the LED forward voltage must be closely matched (linear) with the power supply voltage - Many discrete LEDs require voltages that are not common and are difficult to control in a linear fashion.

This is why PWM Power dimming is most commonly used with LED Strip lighting type products where multiple LEDs can be combined to create a 12V or 24V LED circuit.

A1



A2



PWM (Signal) DIMMING

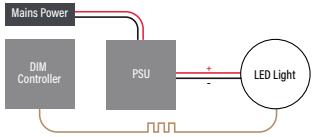
PWM Signal dimming directly controls the output current of a power supply, either an internal constant current driver inside a light fitting or an external constant current or constant voltage power source.

The driver or power supply requires a separate control signal wire that the PWM signal is delivered over. The PWM signal is then used by the driver to modify the output current to the LED.

The advantages of this approach are that multiple individual fittings can be controlled with the same dimming signal and that it operates independent of the internal LED voltage. A variety of types of fittings can be controlled in the same manner.

Many other forms of lighting control are in fact interfaces to a PWM Signal type of dimming, given that close to the LED a PWM signal of some sort will almost always be needed to modify the LED output.

B



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DALI

DALI (Digital Addressable Lighting Interface) is a modern lighting control protocol. It allows each device to be individually addressed and controlled.

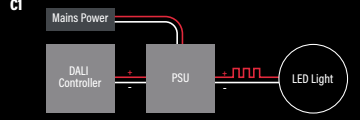
The benefits of DALI are relative ease of deployment and commissioning, with each fixture or driver assigned an address and independently controlled.

The drawbacks include the requirement for additional components such as a DALI power supply and typically a master controller. Additionally, DALI wiring rules specify that the control cables (although ELV) must be treated as 240V.

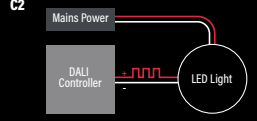
This simplifies wiring in mains powered lighting systems but may complicate requirements in SELV systems.

Aqualux fittings that are DALI compatible typically use a DALI/PWM interface to provide this control. This means that control is available down to the power supply group rather than individual fitting.

C1



C2



DMX512

DMX (Digital Multiplex) is a common digital protocol for the control of entertainment lighting and architectural systems.

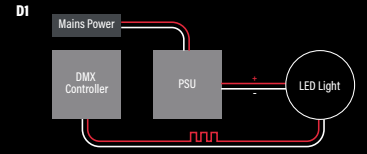
Developed initially for linking theatrical lighting and effects systems to central controllers, it has expanded to include many other functions.

DMX requires a separate set of control cables to carry the data signals from a central controller to the lighting control systems and power supplies. It can be used with both low voltage and mains lighting products as the control system is completely separate to the lighting power supply system.

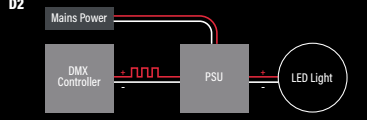
The benefits of DMX512 are that it is a widely used and well understood system with many compatible control products. Very long signal cable runs are also possible, up to 1km or more. Wireless DMX equipment is also available.

The main drawback is that DMX requires additional control equipment and adds complexity to a system beyond what is typical for residential applications. Many fittings will also require an interface module to convert the digital DMX512 signal to PWM Signal.

D1



D2



Technical Information

ArtNET

ArtNET is a protocol for transmitting DMX/RDM signals over Ethernet. It can make the deployment of a DMX solution a lot easier as it can utilise existing infrastructure.

Phase cut / TRIAC

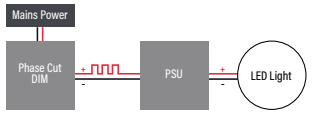
Phase cut dimming includes both TRIAC based dimming (leading edge) and trailing edge approaches.

There are also "universal" dimmers that can determine the most appropriate mode for the detected load. The benefits of phase-cut dimming are that it is simple to install and widely understood by most contractors.

The drawbacks include incompatibility with many LED products and varying performance that depends on the combination of dimmer, power supply and LED light.

Some manufacturers recommend only certain combinations of dimmers and power supply units.

E

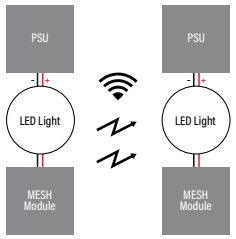


Mesh Networks (Zigbee, Casambi, Silvair)

There are a growing number of mesh network protocols intended for wireless control of lighting and other building systems. Casambi and Silvair operate using Bluetooth mesh networks, whereas Zigbee utilises its own radio communication method.

Casambi in particular is growing in popularity and Aqualux will soon be able to offer a range of options for control of fittings and strip lighting with Casambi products.

F



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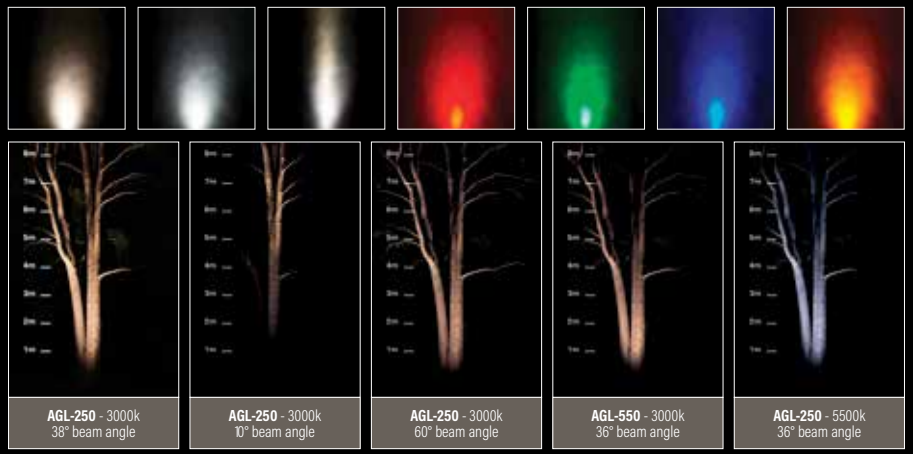
Aqualux LED Lamps

A complete range designed for landscape lighting

~ True MR16 GX5.3 Form, Fits most MR16 / GX5.3 Luminaires.
~ 4W High-Power LED technology, thermally optimised for enclosed fittings.
~ 3000K / 5700K / Amber / Red / Green / Blue for Lighting design flexibility.
~ 12 ~ 24V AC/DC MultiVoltage™ for ultimate installation flexability.
~ New ultra-spot 10D model for highlighting columns, trees and features.

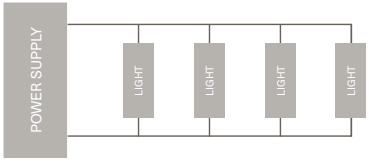
Product Code	CCT / Color		Lumens	Power	Beam	Voltage	Form
AGL-250-30X38	3000K		250lm	4W	38°		
AGL-550-30X36	3000K		550lm	6W	36°		
AGL-250-55X38	5500K		250lm	4W	38°		
AGL-250-30X60	3000K		235lm	4W	60°		
AGL-550-30X60	3000K		525lm	6W	60°	12~24V AC/DC	GX5.3 Base
AGL-250-30X10	3000K		235lm	4W	10°		MR16 50 x 47mm
AGL-250-RDX38	Red	627nm	-	4W	38°		
AGL-250-GNX38	Green	530nm	-	4W	38°		
AGL-250-BUX38	Blue	470nm	-	4W	38°		
AGL-250-AMX38	Amber	590nm	-	4W	38°		



Wiring Materials and Corrosion

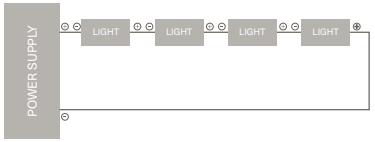
Parallel Wiring

All Aqualux LED luminaires are designed to be wired in parallel. This is the most common electrical wiring approach used for standard residential & commercial installations.



Series Wiring

For systems where internal drivers have been removed in order to provide dimming functionality series wiring is required, alongwith a Constant Current PSU.



Aluminium (6063)

Aluminium can be grouped into two different categories with respect to outdoor lighting - Machined or Cast. Machined, 6000-series aluminum is a superior alloy and can be effectively anodized, a process which integrates a layer of extra-hard aluminium oxide into the surface of the metal and protects against corrosion.

~ Durable material (yacht masts, rock-climbing hardware etc).
~ Minimal maintainence / good thermal conductivity.
~ Variety of colours available.

Brass

An alloy of tin & copper, brass is a material in common use for a wide variety of outdoor light fittings. Highly resistant to corrosion, brass will oxidize lightly over time but will generally not degrade structurally even in highly corrosive environments. Most brass fittings are generally cast and then machined.

~ Very durable material.
~ Available in different surface finishes.

Copper

Copper is a popular option for more traditional settings and will naturally oxidize over time, turning a dark green colour as the metal reacts with oxygen in the air, unless it is continuously polished. Copper is one of the most expensive materials used in the construction of light fittings but also one of the most enduring.

~ Copper is a traditional look, will age naturally.
~ Will last the longest with minimal maintainence.
~ Variety of surface finishes available.

Stainless Steel

Stainless Steel is a popular choice for luminaire construction. Featuring resistance to corrosion, Stainless Steel for luminaire construction comes in two common grades, 304 & 316 ("Marine Grade"). Stainless Steel must be maintained in order for it to retain it's "stainless" appearance. Tea staining, dirt, salt and even rust can build up on any type of "Stainless" fitting unless it is properly maintained by wiping it down every few months with a damp cloth.

~ Resonably durable material.
~ Requires maintainence to avoid tea-staining.
~ Can be electro-polished to improve corrosion resistance.

Corrosion Control - Galvanic Table

The Galvanic Table lists metals in the order of their relative activity in sea water environment. The list begins with the more active (anodic) metal and proceeds down the to the least active (cathodic) metal of the galvanic series.

Galvanic series relationships are useful as a guide for selecting metals to be joined, will help the selection of metals having minimal tendency to interact galvanically, or will indicate the need or degree of protection to be applied to lessen the expected potential interactions.

Generally, the closer one metal is to another in the series, the more compatible they will be, i.e., the galvanic effects will be minimal. Conversely, the farther one metal is from another, the greater the corrosion will be.

Active (Anodic)
1. Magnesium
2. Mg alloy AZ-31B
3. Mg alloy HK-31A
4. Zinc (hot-dip, die cast, or plated)
5. Beryllium (hot pressed)
6. Al 7072 clad on 7075
7. Al 2014-T3
8. Al 1160-H14
9. Al 7079-T6
10. Cadmium (plated)
11. Uranium
12. Al 218 (die cast)
13. Al 5052-0
14. Al 5052-H12
15. Al 5456-0, H353
16. Al 5052-H32
17. Al 1100-0
18. Al 3003-H25
19. Al 6061-T6
20. Al A360 (die cast)
21. Al 7075-T6
22. Al 6061-0
23. Indium
24. Al 2014-0
25. Al 2024-T4
26. Al 5052-H16
27. Tin (plated)
28. Stainless steel 430 (active)
29. Lead
30. Steel 1010
31. Iron (cast)
32. Stainless steel 410 (active)

33. Copper (plated, cast, or wrought)
34. Nickel (plated)
35. Chromium (Plated)
36. Tantalum
37. AM350 (active)
38. Stainless steel 310 (active)
39. Stainless steel 301 (active)
40. Stainless steel 304 (active)
41. Stainless steel 430 (active)
42. Stainless steel 410 (active)
43. Stainless steel 17-7PH (active)
44. Tungsten
45. Niobium (columbium) 1% Zr
46. Brass, Yellow, 268
47. Uranium 8% Mo.
48. Brass, Naval, 464
49. Yellow Brass
50. Muntz Metal 280
51. Brass (plated)
52. Nickel-silver (18% Ni)
53. Stainless steel 316L (active)
54. Bronze 220
55. Copper 110
56. Red Brass
57. Stainless steel 347 (active)
58. Molybdenum, Commercial pure
59. Copper-nickel 715
60. Admiralty brass
61. Stainless steel 202 (active)
62. Bronze, Phosphor 534 (B-1)
63. Monel 400
64. Stainless steel 201 (active)
65. Carpenter 20 (active)

66. Stainless steel 321 (active)
67. Stainless steel 316 (active)
68. Stainless steel 309 (active)
69. Stainless steel 17-7PH (passive)
70. Silicone Bronze 655
71. Stainless steel 304 (passive)
72. Stainless steel 301a (passive)
73. Stainless steel 321 (passive)
74. Stainless steel 201 (passive)
75. Stainless steel 286 (passive)
76. Stainless steel 316L (passive)
77. AM355 (active)
78. Stainless steel 202 (passive)
79. Carpenter 20 (passive)
80. AM355 (passive)
81. A286 (passive)
82. Titanium 5Al, 2.5 Sn
83. Titanium 13V, 11Cr, 3Al (annealed)
84. Titanium 6Al, 4V (solution treated and aged)
85. Titanium 6Al, 4V (anneal)
86. Titanium 8Mn
87. Titanium 13V, 11Cr 3Al (heat treated and aged)
88. Titanium 75A
89. AM350 (passive)
90. Silver
91. Gold
92. Graphite
End - Noble (Less Active, Cathodic)

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Manufacturing Construction and Finishes

Aqualux utilises the Dulux Electro powdercoat range to provide a range of body finish option. This is a super durable polyester powder coat, designed to last in extreme Australian conditions.

Combined with our state-of-the-art pre-treatment line and aerospace-grade passivation, Aqualux luminaire finishing is industry-leading protection for ultra long lasting protection in urban, rural and coastal landscape environments.

Aluminium / 6000 Series aluminium is CNC machined and then thoroughly degreased, etched and pre-treated with an advanced aerospace-grade passivation solution that provides superior adhesion and anti-corrosion properties.

Brass / Machined or cast brass is available in multiple finishes, including raw, aged, electroless nickle plated or powder coated. The superior natural corrosion resistance of brass results in long lasting metal integrity without requiring the same level of pre-treatment.

Standard Colour Options

Flat White 9061200f | Silver Reign 9067614k | Venerable Silver 9067621k | Medium Bronze 9068183k | Black Ace 9069116f

Custom Colour Options

Gold Pearl 9062221k | Fresh Gold 9062208k | Sensational Champagne 9063187k | Brilliance 9068281k | Tiberius 9062210k

Burnished Copper 9068185k | Dark Bronze 9068184k | Blue Night 9065303k | Basalt® 9067645f | Monument® 9069171f

Dulux POWDER COATINGS ELECTRO® ANODISED RANGE

The full Dulux power coat range is available upon request.

Colours displayed should be used as a guide for your colour selection.
Visit www.duluxpowders.com.au or contact Aqualux for further information and finish samples.
Please contact us for lead times on your chosen finish.

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Just a click away

There are many support pages on the Aqualux website.
Here are some you might be interested in.

Downloads

Datasheets

Neon Flex & LED Strip

- AQS-400
- AQS-401
- AQS-402
- AQS-410
- AQS-420
- AQS-421
- AQS-500
- AQS-505
- AQS-510

String Lighting

- AQF-Festoon
- AQF-Fairy Lights

Power & Globes

- AQF-G-001
- AQF-G-002
- AQF-G-003
- AGL-250
- AGL-550
- AQD-DC Power Supply
- AQO-AC Power Supply

AQL-600 Series

- AQL-600
- AQL-601
- AQL-602
- AQL-603

AQL-900 Series

- AQL-910
- AQL-911
- AQL-912
- AQL-913

Wiring Diagrams

- Listed on page 36

Installation & Guides

- AGL Lighting Test
- IP / IK / CCT Guide
- Neon Flex Feature Guide
- Spike Light Feature Guide
- New Product Codes
- Extrusion Datasheet
- Aqualux Dimming and Lighting Control Guide
- Dulux Electro Construction and Finishes
- Cable Connect Installation Guide

Warranties & PCN's

- Aqualux Warranty
- PCN001 Lumena Product Change
- PCN002 Anodizing and Powder Coating
- PCN003 AQL-503 End of Life
- PCN004 Standard Powder Coating

Catalogues

- Summary Brochure May 2019
- Catalogue February 2022
- Modern Day Slavery Statement

Voltage Drop Calculator

Payment

Catalogue Request

Find a Reseller

IP/IK Ratings and CCT Guide

IP Ratings

The IP (Ingress Protection) rating system provides a means of classifying the degrees of protection from foreign bodies and liquids afforded by electrical equipment and enclosures. The degrees of protection against the ingress of foreign bodies and liquids are indicated by the first two numerals as detailed in the table below.

	1ST NUMBER
0	No Protection
1	Protected against ingress of objects => 52mm in diameter.
2	Protected against ingress of objects => 12.5mm in diameter.
3	Protected against ingress of objects => 2.5mm in diameter.
4	Protected against ingress of objects => 1mm in diameter.
5	Dust Protected
6	Dust Tight

	2ND NUMBER
0	No Protection
1	Protected against vertically falling drops of water.
2	Protected against falling drops of water, when enclosure tilted 15 degrees.
3	Protected against spraying water.
4	Protected against splashing water.
5	Protected against water jets.
6	Protected against powerful water jets.
7	Protected against the effects of temporary immersion in water.
8	Protected against the effects of continous immersion in water.

IK Ratings

The IK rating system was introduced in October 1995 as EN62262. It describes the degree to which an electrical enclosure can protect the internal equipment from the effects of mechanical impact.

IK00	**Not protected**
IK01	**Protected against 0.14 joules impact.** Equivalent to impact of 0.25 kg mass dropped from 56 mm above impacted surface.
IK02	**Protected against 0.2 joules impact.** Equivalent to impact of 0.25 kg mass dropped from 80 mm above impacted surface.
IK03	**Protected against 0.35 joules impact.** Equivalent to impact of 0.25 kg mass dropped from 140 mm above impacted surface.
IK04	**Protected against 0.5 joules impact.** Equivalent to impact of 0.25 kg mass dropped from 200 mm above impacted surface.
IK05	**Protected against 0.7 joules impact.** E quivalent to impact of 0.25 kg mass dropped from 280 mm above impacted surface.
IK06	**Protected against 1 joules impact.** Equivalent to impact of 0.25 kg mass dropped from 400 mm above impacted surface.
IK07	**Protected against 2 joules impact.** Equivalent to impact of 0.5 kg mass dropped from 400 mm above impacted surface.
IK08	**Protected against 5 joules impact.** Equivalent to impact of 1.7 kg mass dropped from 300 mm above impacted surface.
IK09	**Protected against 10 joules impact.** Equivalent to impact of 5 kg mass dropped from 200 mm above impacted surface.
IK10	**Protected against 20 joules impact.** Equivalent to impact of 5 kg mass dropped from 400 mm above impacted surface.

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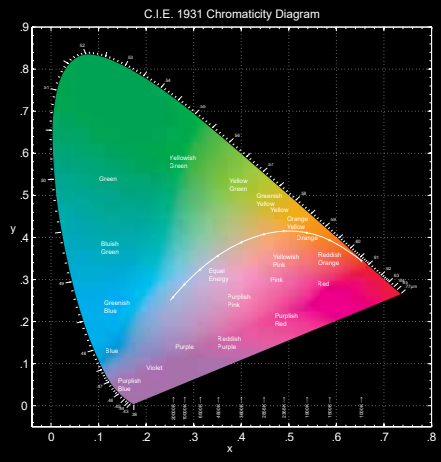
CCT - Correlated Colour Temperature

Color Temperature is the chomacity of a light source as determined by it's position on an imaginary line drawn through a colour space. This line is often referred to as a 'blackbody locus' , as it is the locus (line) resulting from graphing the chromacity of a perfect blackbody radiator as it changes temperature. In general, "hotter" CCT's appear "cooler/bluer" whilst "colder" CCT's appear "warmer/more red".

CCT	Example
2000°	Gaslight
2470 °	15 watt incandescent bulb
2565°	60 watt incandescent bulb
2665°	100 watt incandescent bulb
2755°	500 watt incandescent bulb
2900°	500 watt Krypton bulb
3100°	Projector type filament bulb
3250°	Photo Flood
3400°	Halogen
3900°	Carbon arc
4200°	Moonlight
4700°	Industrial smog
5100°	Hazy weather
5500°	Sun 30° above horizon
6100°	Sun 50° above horizon
6700°	Electronic Flash
7400°	Overcast sky
8300°	Foggy weather
30,000°	Blue sky

The International Commission on Illumination - commonly abbreviated as CIE.



Glossary of Lighting Terms

Luminous Intensity (candela, cd) 1 cd = 1 lm / sr.

Luminous intensity is the light emitted in a given direction by a source. It is measured in candela (cd). The candela is an SI base unit from which other lighting related units are derived. The candela is defined as "the luminous intensity, in a given direction, of a source that emits monochromatic radiation of frequency 540 x 1012 Hz and that has a radiant intensity in that direction of 1⁄683 W per steradian."

Luminous Flux (lumen, lm) 1 lm = 1cd . 1 sr

Luminous flux is the total amount of light emitted from a source in all directions. It can be used to approximate the "brightness" of a source, given that it is an average of the visible portion of the spectra emitted by a light source weighted by a function known as 'v-lambda' that describes the human visual systems sensitivity to light of different wavelengths. The lumen is a derived unit defined as 1 candela emitted in 1 unit solid angle, or steradian.

Radiant Flux (W)

The radiant flux of a light source is a measure of the total power emitted by a source across the entire electromagnetic spectrum, including non-visible portions such as UV and IR. In lighting, radiant flux is used in order to determine the luminous efficacy of a light source.

Luminous Efficacy (lm/W)

The luminous efficacy of a light source is determined by dividing the luminous flux by the radiant flux. The resulting fraction or coefficient describes the degree to which a source emits radiation in the visible or 'useful' part of the spectrum for lighting purposes. Energy emitted in wavelengths outside the visible portion of the spectrum reduces the overall luminous efficacy of a light source.

Illuminance (lux, lx) 1 lx = 1 lm/m2

Illuminance is the light incident on the surface of a plane. It is a derivative unit where 1 lux = 1 lumen spread over 1 square meter. Illuminance can be further classified as perpendicular or horizontal illuminance, when needing to differentiate in the analysis of a lit environment. The inverse square law can be used to calculate the lux incident on a plane with a known source intensity and distance.

Luminance (cd/m2)

Luminance is the light emitted from or reflected from a surface and approximates the brightness. It is dependant on the luminance of incident light and the reflectance of the surface. It is also commonly used to measure the brightness of a monitor or display.

Color Rendering

The colour rendering ability of a light source is the degree to which the source alters the appearance of an illuminated object relative to the appearance of the object under a reference illuminant. The most commonly used system for measuring this is the Colour Rendering Index (CRI). A series of coloured patches are evaluated under the source illuminant and an average calculated and indexed to a score (Ra) out of 100. Although in widespread use, there are several issues with the CRI system. An improved standard is TM-30 which is now available.

CCT

The colour temperature of a light source is a measure used to describe the appearance of a white-light source. 'Cool' sources are said to have a higher CCT (above 5000K) whilst 'Warm' sources have lower temperatures (below 3000K). It it referred to as correlated colour temperature because the appearance of the light source is being compared to that of an 'ideal' black-body radiator with a similar surface temperature measured in kelvin (K).

Beam Angle (FWHM)

Full Width Half Maximum (FWHM) is an expression often found in the specification of LED optical systems. It refers to the width of the beam where the intensity is 50% of the maximum. This is typically measured by a goniophotometer during standard photometric testing. Some manufacturers may use different systems for specifying optical beam performance.

Voltage Drop

Voltage drop in landscape lighting is the degree to which the starting voltage decreases over a given length of cable as a function of both the current load (A) and the resistance (Ω) of the cable. If the proper cable is not selected, voltage drop can produce faults such as low output or flickering lights. Selecting luminaires with the Aqualux MultiVoltage™ internal driver and using a 24V power supply can mitigate many of these issues, allowing for cheaper and more flexible installation.

LM-80

The LM-80 standard is the IESNA approved method for determing lumen maintenance of LED light sources, e.g. how quickly the light output of an LED source degrades over time. It deals with actual measurements only.

TM-21

TM-21 is a way of taking LM-80 data and making useful extrapolations in order to calculate longer LED lifetimes, given that testing for more than 10,000 hours is impractical. It is the TM-21 method that lets LED manufacturers determined the L70 and L80 lifetime expectancies of their LEDs.

TM-30

TM-30 is the official replacement for the previous system (CRI) of determining the ability of a light source to accurately render colour in comparison to a reference source. Although not widely spread, TM-30 measurement is expected to be the future of CRI standards.

LM-79

The LM-79 test report provides details about the performance of a total luminaire package, including wall-to-lumen efficacy, luminous flux, luminous intensity distribution and CCT / CRI details. It is the most common "lighting test report" available for many light fittings.

IES File

An IES file is a digital representation of the zonal luminous intensity distribution of a light source. This file can be used by lighting software to accurately render the spread of light from a source to determine if the fitting provides the required illumination.

Integrating Sphere

An integrating sphere is a device used to measure to total luminous flux of a source. Comprised of a spherical housing the inner surface is coated with a highly diffuse paint. When a light is shone in through the aperture, the internal surface "integrates" the light into an average which a calibrated sensor can then use to determine the total flux.

SPD

The Spectral Power Distribution "SPD" of a source represents the distribution of the radiant power throughout the visible spectrum. Usually defined in 5nm increments it can be used to determine the luminous efficacy of a light source and it's colour rendering properties.

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Aqualux Warranty September 2021

Aqualux Limited Warranty Information

Aqualux sources, designs, and manufactures advanced landscape lighting of many different varieties. We utilise the highest-grade components manufactured inhouse as well as sourced from around the globe and assembled in our quality-controlled Sydney, Australia facility.

From time to time, for a variety of possible reasons, our products may experience an issue after installation. This page details the various warranties our products carry, the causes of product failure that we have experienced over time, and the steps necessary to make a warranty claim should that be necessary.

Fit-for-Purpose & Installation Requirements

All warranties offered in addition to the statutory requirement of 1 Year are done so on the condition that Aqualux lighting products are fit-for-purpose and installed professionally by qualified persons and that all guidelines and requirements are followed.

Fit-for-purpose in this context refers to the intended application our products are designed for which is residential and commercial garden & landscaping environments. Products not specifically designated IP68 are not fit for submersion, either intended or accidental.

Remote, Difficult & Unusual Installations

Where Aqualux products are installed in unusual, remote, or difficult to access locations and environments, this is done so at the end user's risk. Where warranty issues arise, Aqualux is limited in its liability to the cost of repairing or replacing the product only.

Examples of remote & unusual installations include (but are not limited to) jobs that require scissor lists, traffic management, significant labor, or the removal of paneling or other secondary installation materials.
If you are uncertain, please contact us to discuss 1300-662-644 / sales@aqualux.com.au

AQS Series Strip Lighting

Please pay particular attention to our fit-for-purpose and unusual installation warranty notes when designing with AQS LED Strip Lighting.
Whilst LED strip lighting allows for unique and previously impossible lighting effects to be achieved, it is still a sensitive electronic product that is potentially subject to failure through a variety of modes including (and most often) improper handling during installation.

All Aqualux AQS products are tested before they leave our factory. We strongly advise customers to test the product prior to installation. Aqualux is not liable for any costs associated with accessing or replacing the AQS-Series strip.

Warranty Claims Procedure

To make a claim for service to repair or replace a product under an Aqualux warranty, contact the original reseller and/or installer of the product.
They will generally be able to process the claim on your behalf. If your original reseller is no longer in business or you are not sure who it may have been, please contact us directly with a photo of your product and a summary of the issue. Aqualux may elect to repair or replace your product depending on the nature of the fault and product serviceability.

Cable Termination Requirements

Cable terminations and joins must be IP-rated for this warranty to apply. Joins and connections that are not fit-for-purpose or that are manifestly unsuitable will not be serviced by Aqualux and any product failure arising from such terminations will not be claimable under this warranty.

Please refer to the cable join / termination guide available on our website for more informatoin.

Quick Connect Cables

Where a product has a quick connect cable, anti-siphon device, or other feature(s) it/they should never be removed. Doing so will void your warranty and in the event of product, failure makes the job of repair/replacement unnecessarily more difficult and costly. If you are concerned one of these features may impact your ability to install our products contact us prior to your order placement.

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The Fine Print

Aqualux Lighting is a brand wholly owned by Telectran International. Telectran International Pty. Ltd. ("Telectran") warrants to the purchaser of products described herein that they be free from defects in material and workmanship for a period commencing at the date of purchase and expiring at the end of the period specified (the "warranty period").

No other warranty, whether express or implied, including any warranty of merchantability or fitness for a particular purpose, shall exist in connection with the sale or use of such products.

Defects that are, in the sole judgment of Telectran, the result of an accident, misuse, abuse, neglect, mishandling, misapplication, faulty installation, unauthorized repair, modification, or acts of God will not be covered by this warranty.

Telectran shall not be liable for incidental or consequential damages, including but not limited to labour costs or lost profits resulting from the use of or inability to use the goods or from the goods being incorporated in or becoming a component of any other product.

Without limiting the generality of the foregoing, Telectran will not be responsible for labour costs involved in the removal of goods or the installation of replacement goods.

If a problem develops with a product during the warranty period call or email us. We may be able to help you identify specific problems and possibly solve them before the unit is returned to us for repair or replacement. In any case, ***DO NOT RETURN ANY GOODS WITHOUT OBTAINING A RETURN NUMBER*** and instructions from us.

Telectran cannot be responsible for damage due to shipping or improper packaging when returning goods. Please see our returns policy for further information.

Upon receipt of a claim, Telectran shall inspect the part or parts claimed to be defective, and we shall repair, or at our discretion, replace, free of charge, any part or parts which we determine to have been defective.

Applicable Warranty Periods

If you cannot find your product below, please contact us. Warranty periods are subject to change without notice - this will not affect an existing purchase.

Product code or family	Warranty (years)	Product code or family	Warranty (years)
AQL-450, 451 & 452 " Turbo"	5 years	AQL-455 "Eco"	2 years
AQL-400 to AQL-420	5 years	AQL-510, 520, 530, 540, 565 & AUL-03 AUL-04	7 years
Lumena / Lumena Pro Range	7 years	AQL-600 Range	3 years
AQL-910, 911, 912 & 913	3 years	AQL-931 & AQL-933	5 years
AQA Artisan Range	10 years	Festoon and Fairy Lights	3 years
AQS Strip Light	3 years	Aquatran AQO AC	10 years
Aquatran AQD DC	5 years	AGL Globes	3 years
Other AQD Control Gear	3 years		

Scan the QR Code to visit the
Aqualux website.

aqualux LIGHTING

15
AQUALUX CELEBRATING
15 YEARS (2006-2021)

30
TELECTRAN CELEBRATING
30 YEARS (1991-2021)

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