

AL Graze DC (CV and DMX)

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INTRODUCTION

WELCOME

Welcome to the AL Graze DC range from Acclaim Lighting. These aluminum bodied wet location (IP66) fixtures are designed specifically to graze indoor and outdoor surfaces in close proximity. Available in 1' and 4' lengths these robust units can be connected in series to greatly simplify installation.

In both 1' and 4' lengths, the AL Graze DC range is divided into two control methods:

- **AL Graze DC CV** - controlled entirely by the power input. For non-dim applications simply attach a regulated 24VDC supply. Dimming can be achieved using either a 24VDC constant voltage (CV) dimming driver (such as the AL Driver 800) or, where integration into a mains level dimmed installation is required, use a MLV (Magnetic Low Voltage) dimmable transformer, such as the M-Series from Acclaim Lighting (see page 11).
- **AL Graze DC DMX** - controlled by an external DMX input, using separate channels for each emitter color. RDM (Remote Device Management) is used via the DMX link to configure the addressing and mode options (see page 15). In addition to the DMX control input, these models require a regulated 24VDC supply.

The range of emitter colors available are dependent on the chosen control method:

	CV	DMX
2700K white	✓	✓
3000K white	✓	✓
3500K white	✓	✓
4000K white	✓	✓
RGB		✓
RGBW		✓
RGBA		✓
Dynamic White (2200K-5500K)		✓

** Dynamic White models use a mixture of 2200K, 3500K and 5000K white emitters.*

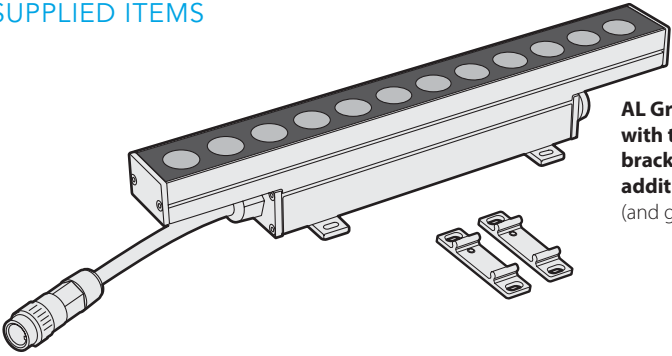
Additionally, to ensure the correct fit with your installation, you have four beam angle options:

- 15° x 15°,
- 10° x 60°,
- 30° x 60°, or
- 60° x 60°.

SAFETY

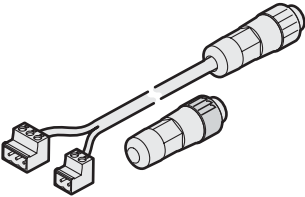
- Ensure that the power input is supplied from a correctly fused, earthed and environmentally protected location.

SUPPLIED ITEMS



AL Graze DC 1' or 4'
with two swivel mount
brackets fitted plus two
additional flat brackets
(and grub screws)

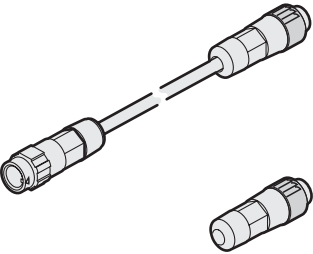
OPTIONAL EXTRAS



Feed cables plus end cap
10' (3m)

CV
[AGEFC10]

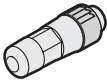
DMX
[AGDFC10]



Link cables
1' (30cm)
5' (1.5m)
10' (3m)

CV
[AGELC1]
[AGELC5]
[AGELC10]

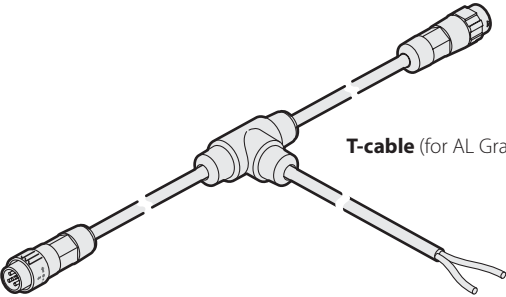
DMX
[AGDLC1]
[AGDLC5]
[AGDLC10]



End caps

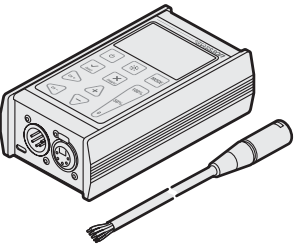
CV
[AGEEC]

DMX
[AGDEC]



T-cable (for AL Graze DC DMX models)

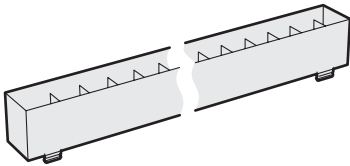
[AGDT1]



DMX/RDM tool plus male 5pin XLR lead
(for AL Graze DC DMX models)

[XMT350]

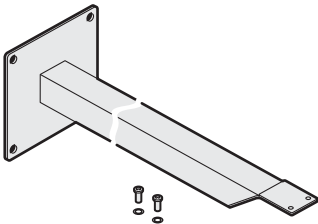
OPTIONAL EXTRAS (CONTINUED)



Louver

1' (30cm)
4' (122cm)

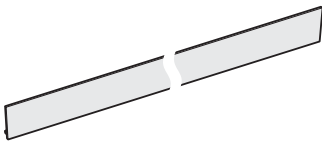
[AGLV1]
[AGLV4]



Extender bar

12" (30cm)
24" (60cm)

[AGEB12]
[AGEB24]



Glare shields

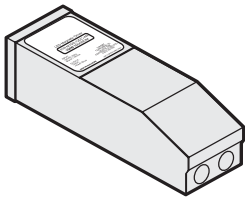
1' (30cm)
4' (122cm)

[AGS1]
[AGS4]



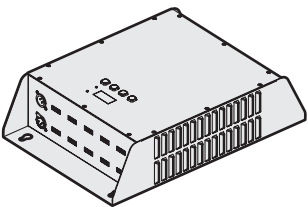
Power supplies (115-230VAC, 47-63Hz input)

24VDC 240W (powers 2 x 12' runs) [APS-240-24]
24VDC 480W (powers 4 x 12' runs) [APS-480-24]



Dimmable transformers (for AL Graze DC CV models)

120VAC input, 150W (powers 1 x 12' run) [M150L24DC]
120VAC input, 300W (powers 2 x 12' runs) [M300L24DC]
277VAC input, 150W (powers 1 x 12' run) [M150L24DC-277]
277VAC input, 300W (powers 2 x 12' runs) [M300L24DC-277]



800W dimming driver (for AL Graze DC CV models)

DMX, RDM, 0-10V or DALI input
(powers 6 x 12' runs) [ALD-800-24]

INSTALLATION

When installing each AL Graze DC fixture, ensure that the surface is level and that nothing is protruding to damage the mounting bracket(s). Suitable mounting surfaces include steel, aluminum, concrete or wood structures.

Each mount bracket has two slots measuring 0.35" x 0.16" (9 x 4mm) and the base has a thickness of 0.14" (3.5mm). Select bolts or screws (not supplied) that fit the mount bracket base(s) correctly and are particularly suited to the mounting surface.

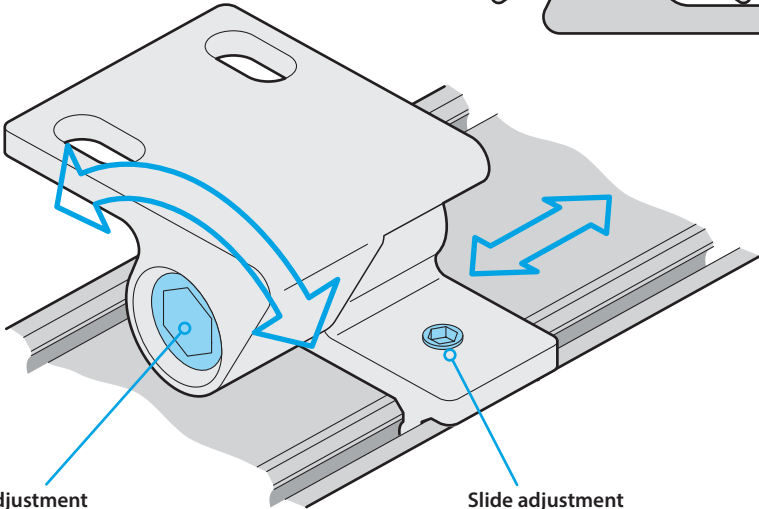
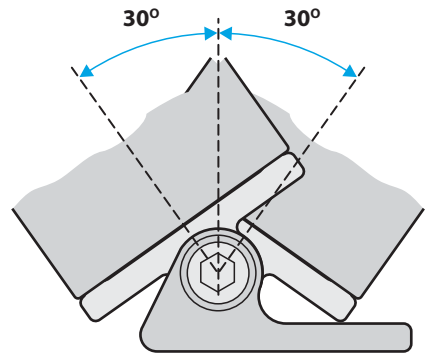
Ensure that each mount bracket is securely fixed to the mounting surface with appropriate screws/bolts. If necessary, use a 1/16th (1.5mm) Allen wrench to loosen each mount bracket to allow them to slide along the length of the fixture to the required position before re-tightening.

Note: It may be necessary to temporarily remove the mounts from the AL Graze DC unit in order to fix them to the surface. See page 6 for details.

MOUNT ADJUSTMENT

The two standard swivel mount bracket(s) supplied attached to each AL Graze DC fixture allow tilt angles, in both directions, of roughly 30 degrees from vertical to be achieved. Use a 1/16th (4mm) Allen wrench to adjust the tilt angle.

Replacement flat brackets are also supplied with each fixture. See page 6 for details.

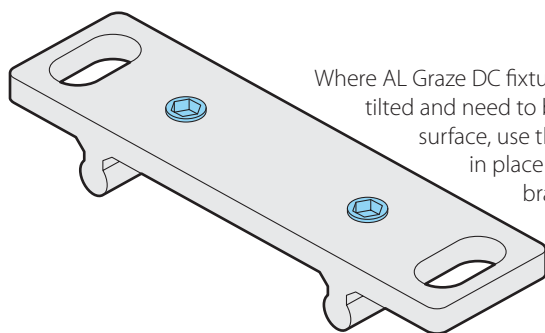
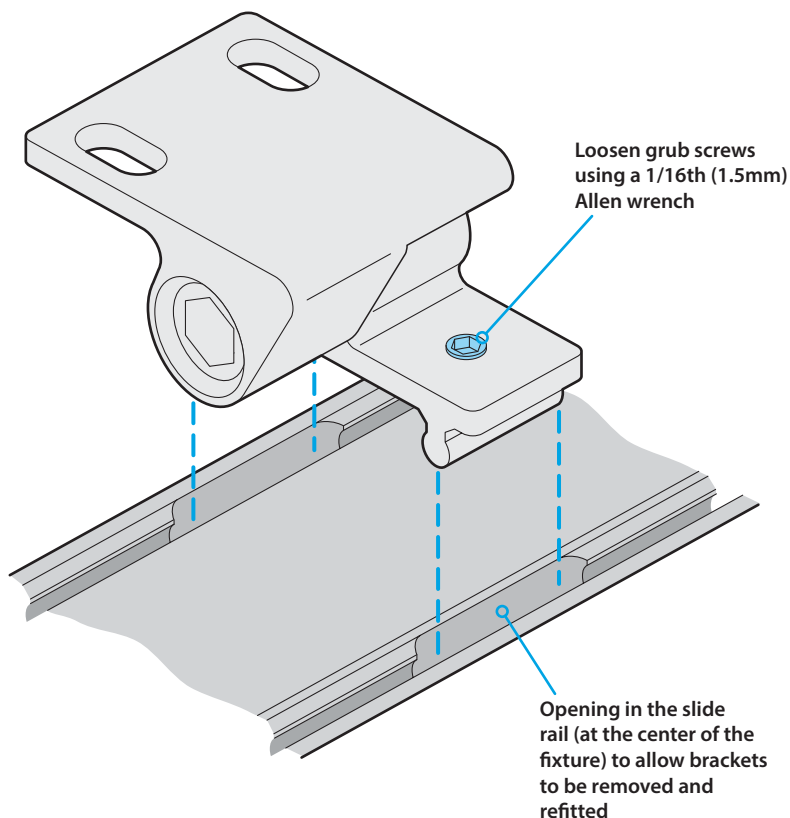


Tilt adjustment
(3/16th / 4mm Allen wrench required)

Slide adjustment
(1/16th / 1.5mm Allen wrench required)

REMOVING AND REPLACING BRACKETS

Two types of mount brackets are supplied with each AL Graze DC fixture and these are easily changed. Use a 1/16th (1.5mm) Allen wrench to loosen the two grub screws on each bracket. Then slide the bracket to the center of the fixture where the rails widen to allow the feet of the bracket to be released.



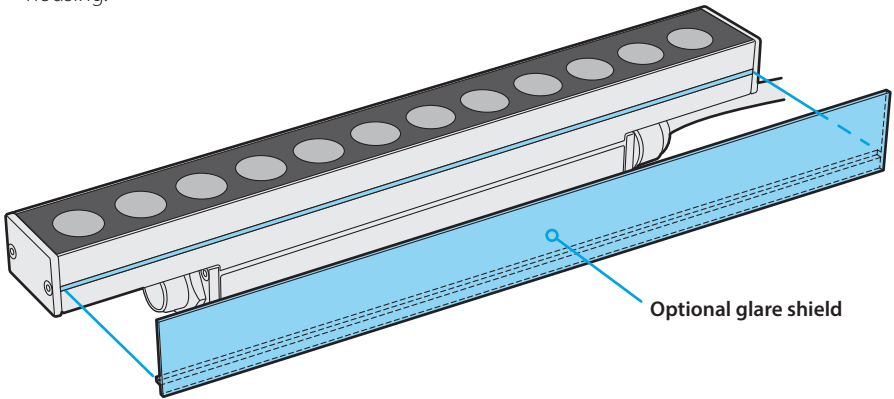
Where AL Graze DC fixtures do not need to be tilted and need to be closer to the mounting surface, use the supplied flat brackets in place of the swivel mount brackets.

FITTING A GLARE SHIELD

Optional glare shields are available for both sizes of AL Graze DC fixture; these can be quickly fitted on either side of the emitter housing to help conceal the emitters from side view.

TO FIT A GLARE SHIELD

- 1 Line up the ledge of the glare shield with the main groove on either side of the emitter housing.



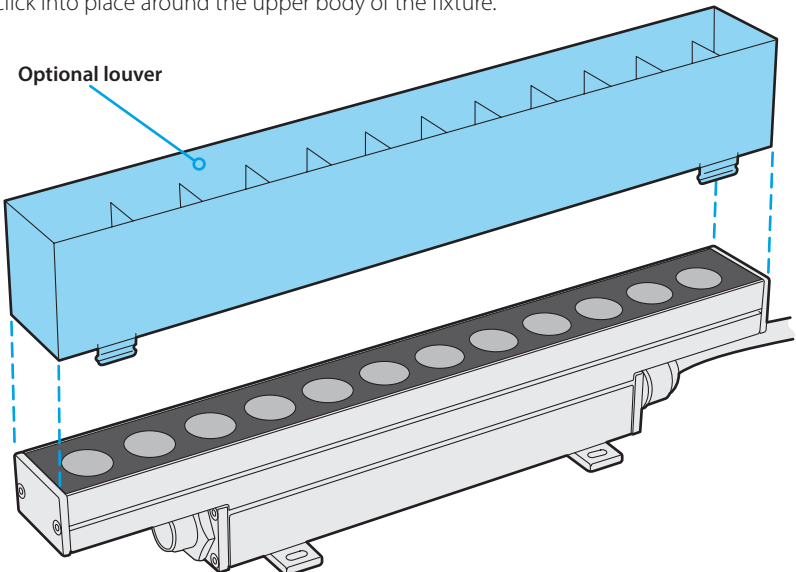
- 2 Press the ledge into the groove until it snaps into place.

FITTING A LOUVER

Optional louvers are available for both sizes of AL Graze DC fixture; these can be quickly fitted to eliminate all sideways light spill.

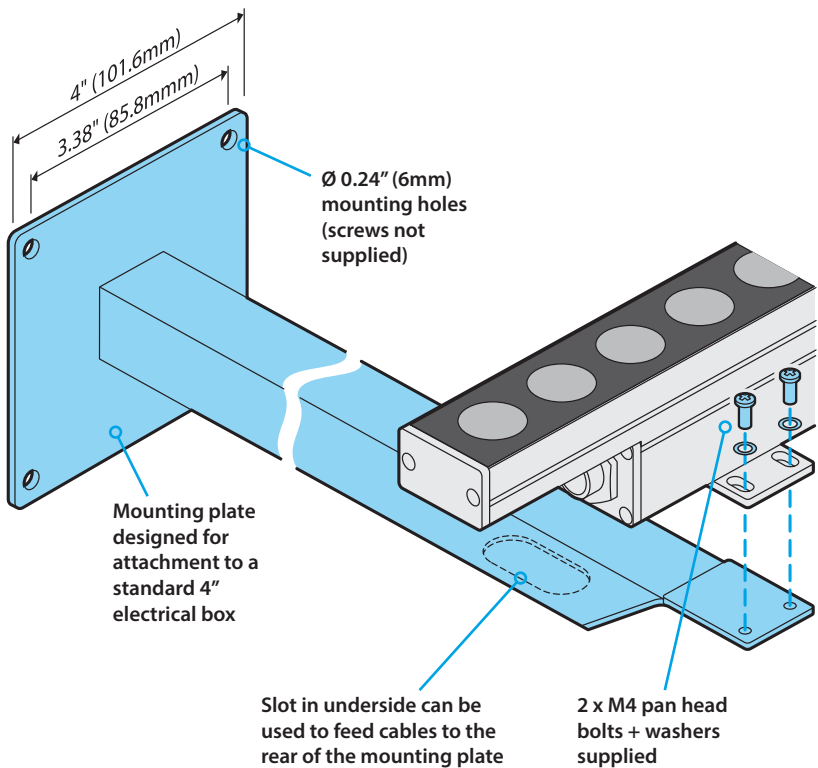
TO FIT A LOUVER

- 1 Lower the louver over the front face of the AL Graze DC until the four tabs of the louver click into place around the upper body of the fixture.



FITTING EXTENDER BARS

A common fixing method is to use optional extender bars. These are available in 12" and 24" lengths. Two extender bars are required for each AL Graze DC fixture.

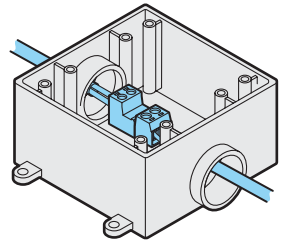


Note: When feeding cables through the extender bar check for any metal burrs that may have formed during manufacture - take care not to snag cables.

POWER AND CONTROL WIRING

AL Graze DC fixtures use Chogori™ Standard (22) series IP67 connectors for their inputs and outputs. The connector placements at each end of every fixture are such that abutted fixtures can be directly connected without need for extra link cables:

- **AL Graze DC CV** units require a regulated 24VDC power input only and so use 2-pin connectors. Dimming can be achieved using either a 24VDC constant voltage (CV) dimming driver or, where integration into a mains level dimmed installation is required, use a MLV (Magnetic Low Voltage) dimmable transformer, such as the M-Series from Acclaim Lighting.
- **AL Graze DC DMX** units require both a regulated 24VDC power input as well as DMX control and so use 5-pin connectors. The final fixture in the line should have a 120Ω terminating resistor connected between the DMX + and DMX – lines.



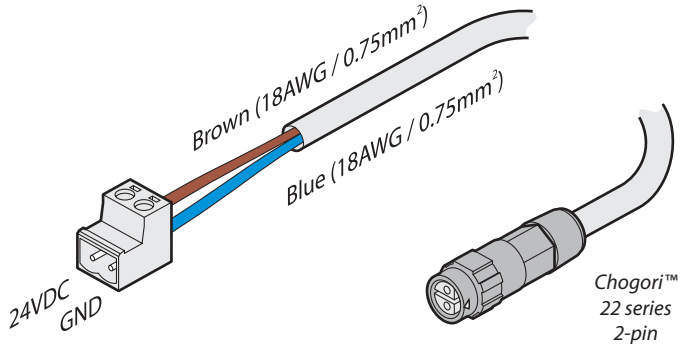
Connections to feed cables are best protected within junction boxes with suitable IP ratings

IMPORTANT: These connectors are not rated for live connection or disconnection. Check that power is isolated before making or breaking any links. Ensure the connectors have locked and are seated correctly before applying power.

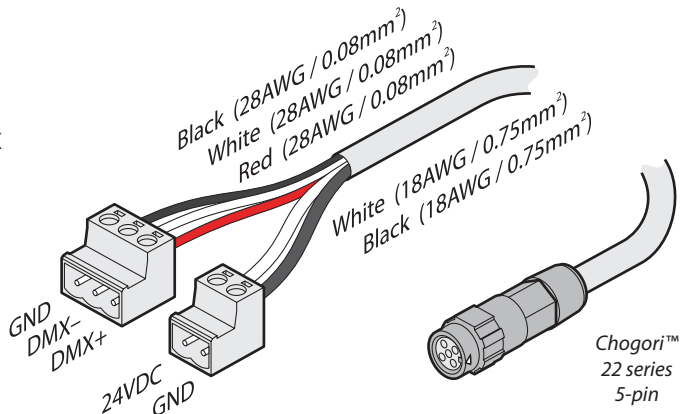
IMPORTANT: Do not exceed the stated maximum fixtures in a daisy chain. See “Maximum number of fixtures” on page 13.

The required feed-in cables (available as separate purchase) also include pluggable terminal sockets (5.08mm pitch) at the external end for rapid connections. The cable designations are as follows:

AL Graze DC CV
3' (10m)
feed-in cable
24VDC only
[Part #: AGEFC10]

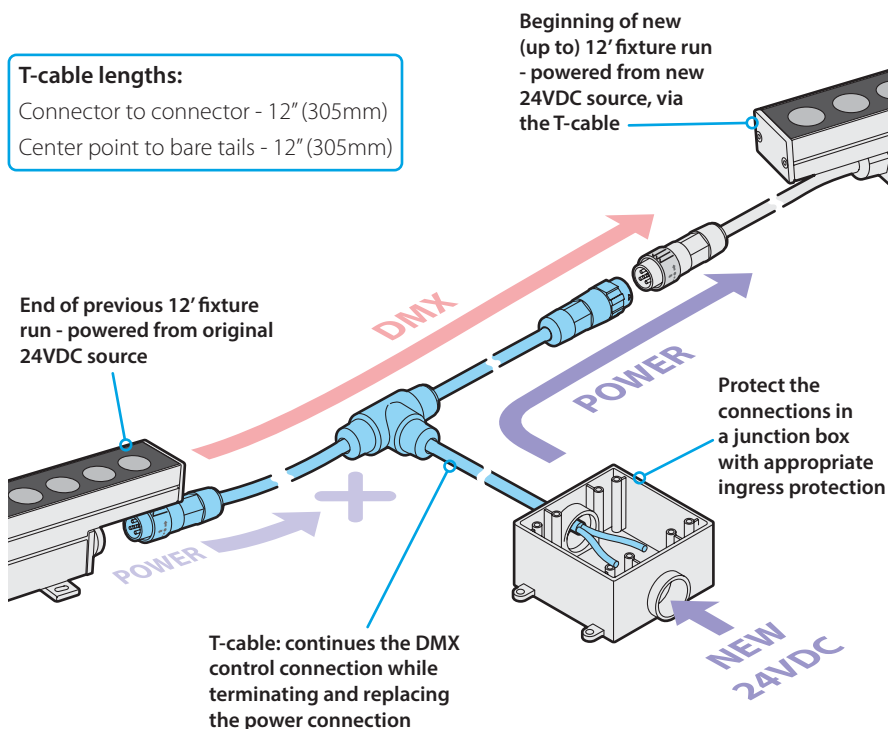


AL Graze DC DMX
3' (10m)
feed-in cable
24VDC and DMX
[Part #: AGDFC10]

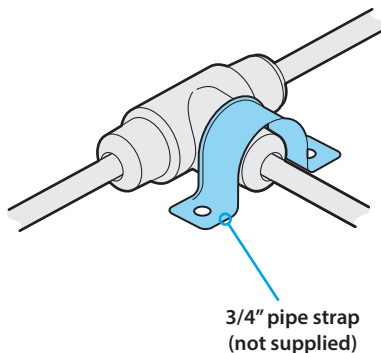


EXTENDING FIXTURE RUNS BEYOND 12 FEET

Due to the limited current carrying capacity of the internal power buses, runs of AL Graze DC fixtures must not exceed 12' (3.65m). Where longer lengths are required you can either arrange separate parallel runs of up to 12' or use the optional T-cable [AGDT1] from Acclaim Lighting. The T-cable is applied between separate 12' runs, where it continues the DMX control links while terminating and replacing the power input with a new source:

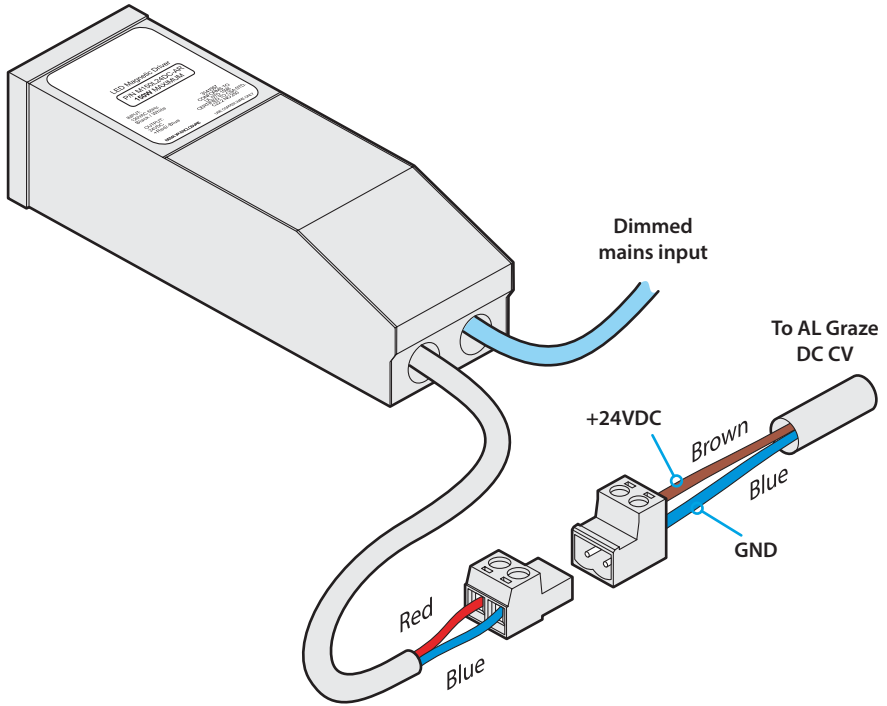


Where the T-cable body needs to be secured, Acclaim Lighting recommends the use of a standard 3/4" pipe strap:



M-SERIES 24VDC DIMMABLE TRANSFORMER (AL GRAZE DC CV MODELS ONLY)

The M-series magnetic transformers allow LED fixtures to be integrated into an existing dimmed-circuit lighting installation.



These transformers can be connected alongside (or in place of) an incumbent lighting fixture and convert the dimmed mains to the 24VDC supply required by AL Graze DC CV fixtures. Available in the following variants.

- 120VAC input, 150W capacity (can power 1 x 12' run) [M150L24DC]
- 120VAC input 300W capacity (can power 2 x 12' runs) [M300L24DC]
- 277VAC input 150W capacity (can power 1 x 12' run) [M150L24DC-277]
- 277VAC input 300W capacity (can power 2 x 12' runs) [M300L24DC-277]

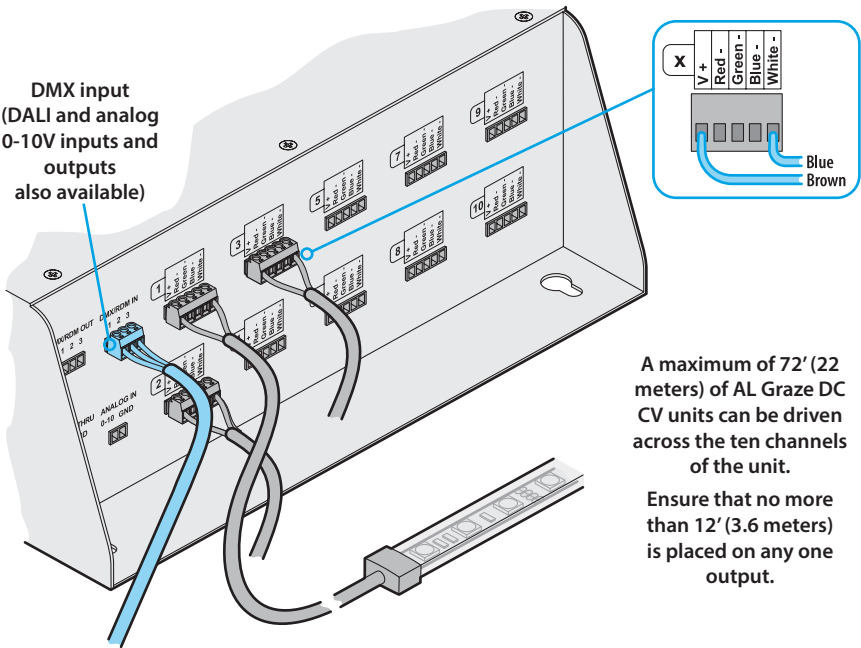
COMPATIBILITY

For a list of dimmers that are known to be compatible with the M-Series transformers, please see the document available at the following address:

http://www.acclaimlighting.com/uploads/tx_acclaimlighting/downloads_us/M_Series_Compatible_Dimmer_List_2015.pdf

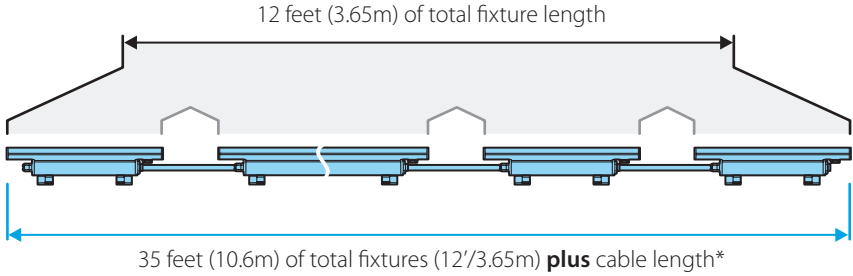
AL DRIVER 800 24V (AL GRAZE DC CV MODELS ONLY)

This combined power supply and driver provides dimming control for multiple AL Graze DC CV units from DMX/RDM, 0-10V or DALI inputs. See AWG recommendations on page 13.



MAXIMUM NUMBER OF FIXTURES

The maximum number of fixtures that can be connected in a single series run is 12 feet (3.65m), as follows:



Runs can consist of mixtures of 1' and 4' fixtures, as required, providing the total length of fixtures (and the total length of fixtures plus cable lengths) is not exceeded.

* AL Graze DC feed-in and link cables use 18AWG wires for their power connections. It is possible to increase the total fixture + cable lengths by using custom cables with larger power cores:

Power cores	New total fixture plus cable lengths
16AWG (1.30mm ²)	50' (15.2m)
14AWG (2.08mm ²)	80' (24.3m)
12AWG (3.30mm ²)	120' (36.5m)

IMPORTANT: In damp or wet location installations, ensure that the output connector of the final fixture has an end cap fitted [CV: AGEEC or DMX: AGDEC] to prevent moisture ingress.

DMX CHANNEL DESIGNATIONS (AL GRAZE DC DMX MODELS ONLY)

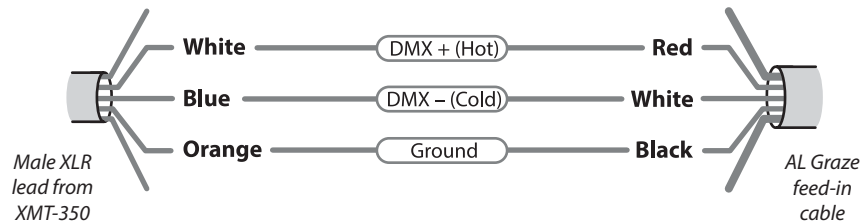
The various AL Graze DC DMX variants apply their LED emitters to DMX channels in different ways, as summarized in the table below.

DMX	RGB	RGBW	RGBA	Dynamic White
1	Red	Red	Red	2200K
2	Green	Green	Green	3500K
3	Blue	Blue	Blue	5000K
4		Cool White	Amber	

The channel allocations above are shown beginning at DMX address 1. When you configure a fixture with an alternative DMX address, that value will become the first channel in the list shown above and the other channels will increment from there.

MAKING A TEMPORARY CONTROL LINK (AL GRAZE DC DMX MODELS ONLY)

Each XMT-350 DMX/RDM tool is supplied with a 5-pin male XLR lead that can be used to make a temporary control input link with the AL Graze DC DMX feed-in cable. Use a 3-pin terminal block, wire nuts, conn blocks or Wago® connectors to temporarily join the two cables:



OPERATION

ADDRESSING FIXTURES (AL GRAZE DC DMX MODELS ONLY)

AL Graze DC DMX fixtures have no external controls and instead rely on RDM (Remote Device Management) for all configuration via the DMX interface. This allows multiple devices to be configured either before or after installation.

Various third party DMX/RDM tools are available; Acclaim Lighting recommends the Swisscon XMT-350 for this task.

TO ADDRESS FIXTURES USING THE SWISSCON XMT-350

- 1 Connect the XMT-350 to the DMX input line of either a single fixture or multiple fixtures in a pre-arranged daisy chain configuration.
- 2 Power on the fixture(s) and the XMT-350.
- 3 On the XMT-350, press the **MODE** button, then use the arrow buttons to highlight the **RDM** function and press the **✓** button to select. The XMT-350 will search for RDM devices and after a short while the XMT-350 will display a list of all located fixtures:

MAIN	PATCH	OPTIONS	004/004
AL GRAZE DC DMX			001
AL GRAZE DC DMX			005
AL GRAZE DC DMX			009
AL GRAZE DC DMX			013

The fixture that is highlighted within the list should begin flashing its emitters to identify itself.

- 4 On the XMT-350, press the right arrow button to change to the **PATCH** tab:

MAIN	PATCH	OPTIONS	004/004
▶ RESTART PATCHING			
AL GRAZE DC DMX			(001)
AL GRAZE DC DMX			005
AL GRAZE DC DMX			009
AL GRAZE DC DMX			013

Note: DMX addresses shown in brackets, e.g. (001), have been temporarily assigned by the XMT-350, but are not yet stored within the fixture(s).

- 5 If necessary, use the up/down buttons to choose an alternative fixture.
- 6 Press the **✓** button to set the address for the currently highlighted fixture:

ACTUAL ADDRESS:	001
PATCH TO ADDRESS:	001
✓ OK	✗ CANCEL

- 7 Use the up/down buttons to set the required DMX address and then press the **✓** button to store it within the fixture.
- 8 The highlight will automatically move to the next fixture so that you can address it. Repeat steps 5 to 7 until all fixtures are addressed.

TESTING EMITTER OUTPUT (AL GRAZE DC DMX MODELS ONLY)

After you have addressed each AL Graze DC DMX fixture we recommend that you also test each one prior to installation. This can be achieved with your RDM (Remote Device Management) tool. Various third party DMX/RDM tools are available; Acclaim Lighting recommends the Swisson XMT-350 for this task.

TO TEST EMITTER OUTPUT USING THE SWISSON XMT-350

- 1 Connect the XMT-350 to the DMX input line of either a single fixture or multiple fixtures in a pre-arranged daisy chain configuration.
- 2 Power on the fixture(s) and the XMT-350.
- 3 On the XMT-350, press the **MODE** button, then use the arrow buttons to highlight the **SEND** function and press the **✓** button to select.



- 4 Use the arrow buttons to determine the DMX output:
 - Use the left and right buttons to choose the DMX address,
 - Use the up and down buttons to increase/decrease the level at the chosen address.

*Note: If you wish to send DMX values to all addresses simultaneously (rather than cycling through them individually), when the XMT-350 is showing address 001, press the left button once to change to **ALL CHANNELS**. Now when you set the level it will affect all emitters equally.*

FURTHER INFORMATION

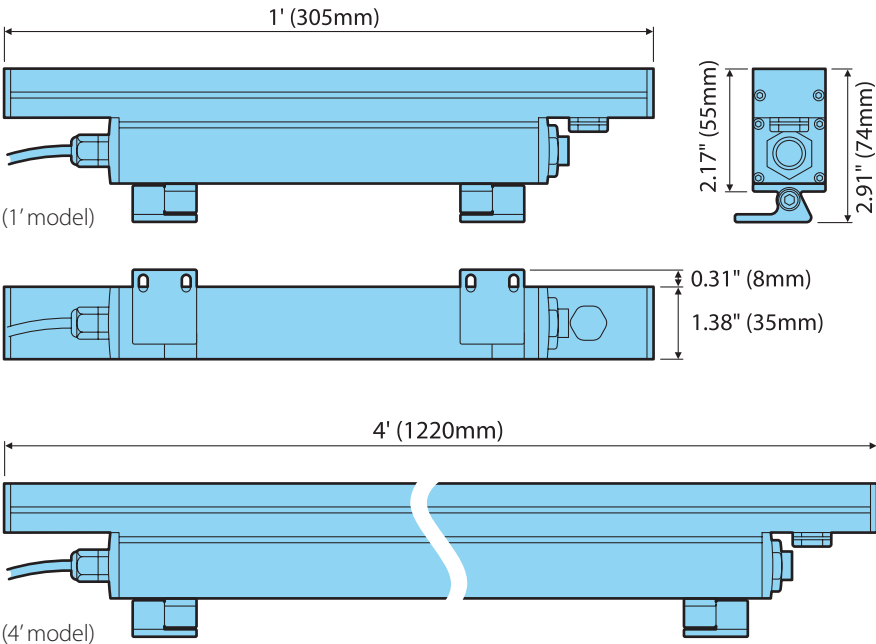
TROUBLESHOOTING

LUMINAIRE DOESN'T TURN ON

- Check that power is correctly applied to the fixture and that there is no damage to the power input cord.
- (DMX models) Use an RDM tool (such as the Swisson XMT-350) to check the settings and internal temperature of the fixture.
- (DMX models) Using an RDM tool, check that the DMX address set within the fixture matches that being output by the controlling source device.
- (DMX models) Check that the DMX + (hot) and DMX - (cold) lines on the incoming control link have not been crossed.

SPECIFICATIONS

Color models	CV:	2700K, 3000K, 3500K and 4000K white
	DMX:	All above + RGB, RGBW, RGBA or Dynamic White (2200-5000K)
Beam angle options		15° x 15°, 10° x 60°, 30° x 60° or 60° x 60°
Illuminance (lm/ft²)		419 (4000K 30° x 60° variant @ 100% - 1 foot section)
Lumen maintenance (L ₇₀)		150,000 hours (25°C)
Control	CV:	24VDC constant voltage dimming
	DMX:	DMX512-A (+ RDM configuration)
Ingress protection		IP66, wet location
Fixture connectors		Chogori™ Standard (22) series, IP67 rated
	CV:	2-pin DC power
	DMX:	5-pin combined DC power & control
Maximum lengths in series		12' (3.65m)
Power input		24VDC
Power consumption		9W (1' model), 36W (4' model)
Housing		Anodized brushed aluminum with polycarbonate lens
Mounting		30° swivel mounts included plus static flat brackets
Operating temperature		-4°F to 123°F (-20°C to 50°C)
Weight		1.25 lbs/0.6Kg (1' model), 5 lbs/2.3Kg (4' model)
Certifications		



Release 1.1b

LIMITED PRODUCT WARRANTY

A. Acclaim Lighting™ hereby warrants, to the original purchaser, Acclaim Lighting™ finished products to be free of manufacturing defects in material and workmanship for a standard period of:

- Fixtures: 5 Years (1,825 days) from the date of purchase.
- Flex Products: 3 Years (1,095 days) from the date of purchase.
- Controllers: 2 Years (730 days) from the date of purchase.

It is the owner's responsibility to establish the date and place of purchase and warranty terms by acceptable evidence, at the time service is sought.

B. For warranty service, send the product only to the Acclaim factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Acclaim Lighting™ will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, Acclaim Lighting™ shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof. Acclaim reserves the right to replace the item with same or similar product at its discretion.

C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which Acclaim concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Acclaim Lighting™ factory unless prior written authorization was issued to purchaser by Acclaim Lighting™; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up nor do we guarantee as part of this warranty any lumen performance during period. Parts not covered by this warranty include: fuses, external power supplies, third party items not manufactures by Acclaim lighting. During the period specified above, Acclaim Lighting™ will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Acclaim Lighting™ under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Acclaim Lighting™. At no time will installation or re-installation or products labor or liability costs will be assumed by Acclaim Lighting. All products covered by this warranty were manufactured after January 1, 2012, and bear identifying serial number marks to that effect.

E. Acclaim Lighting™ reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products describe above. Except to the extent prohibited by applicable law, all implied warranties made by Acclaim Lighting™ in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired.

F. Marine or extreme weather location applications using Acclaim lighting products are subject to a 2 year limited warranty and Acclaim must be notified prior to delivery of units for such applications so that preventative treatment can be made to the products to ensure proper performance and product life with a special marine code coating / sealing process at an additional cost.

G. The consumer's and or dealer's sole remedy shall be such repair or replacement as is expressly provide above; and under no circumstances shall Acclaim Lighting™ be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product. This warranty is the only written warranty applicable to Acclaim Lighting™ products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

www.acclaimlighting.com