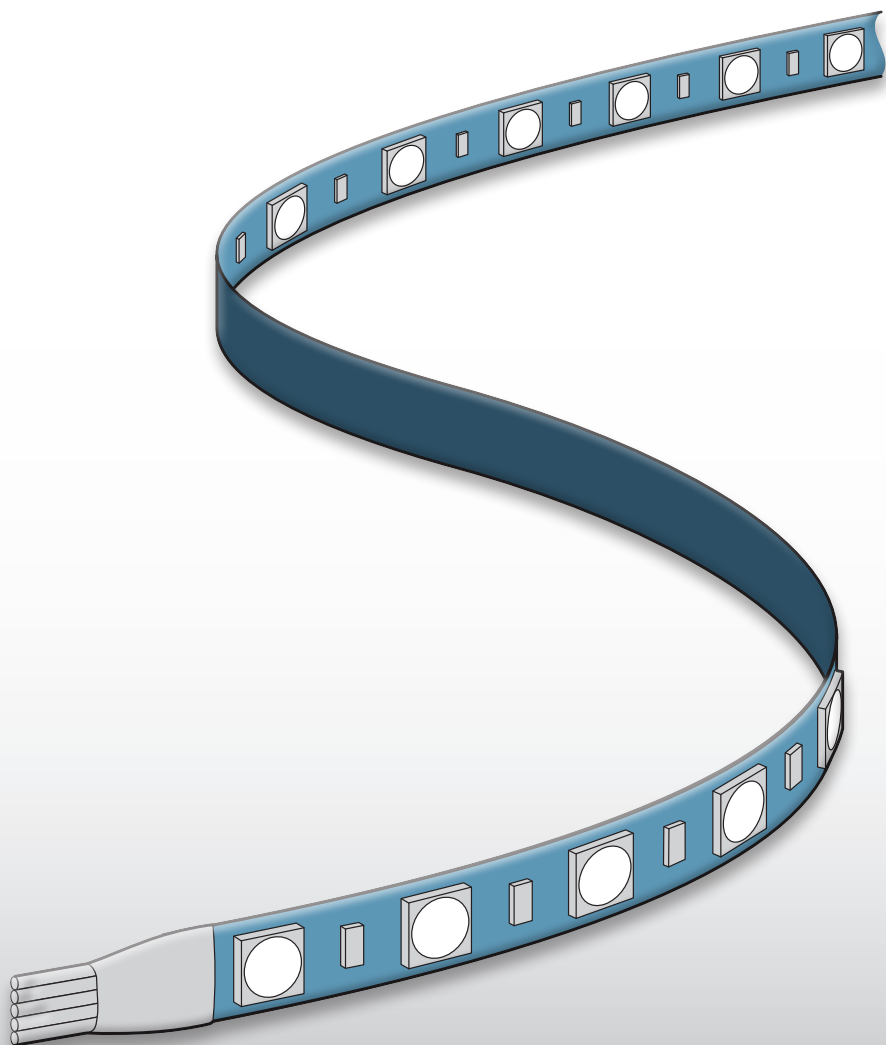




Acclaim™



Flex Spectrum Interior™

User guide

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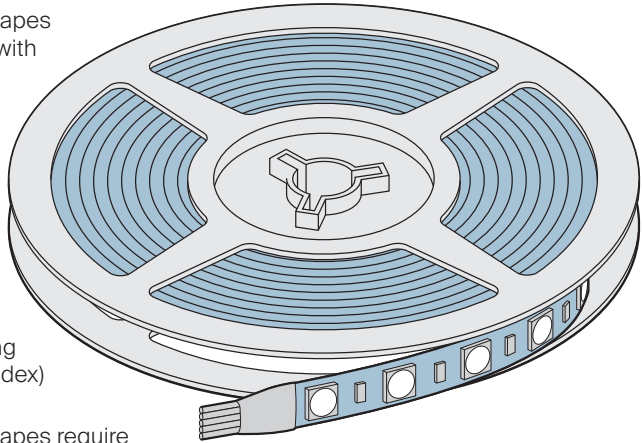
Introduction

Welcome

Welcome to the Flex Spectrum Interior range from Acclaim Lighting. These high output LED tapes, together with a range of mounting channels (see opposite page), suit many installation situations.

Flex Spectrum Interior tapes use quad color diodes with warm white, red, green and blue emitters to allow a much wider range of saturated and pastel color mixes. By mixing blue with the warm white it is possible to achieve a full range of whites ranging from 3000K to 7000K while maintaining CRI (Color Rendering Index) values in excess of 80.

Flex Spectrum Interior tapes require a 24VDC supply and dimming is supported using Pulse Width Modulation (PWM) by various optional driver units - see page 7.



Safety

- When fixtures are mounted off-ground, ensure they are securely fitted to an appropriate mounting surface.
- Ensure that the power input is supplied from a correctly fused, earthed and environmentally protected location.

Maintenance

CAUTION: *Always isolate mains power before starting maintenance operations.*

- Ensure that all mounting (and device) screws/bolts are fully tight and free of corrosion.
- Ensure there is no deformation to the housing, lenses or fixing points.
- Check that all power supply cables are free from physical damage or material fatigue.
- Use only genuine spare parts supplied by Acclaim Lighting.

Cleaning

- Use a moist, lint-free cloth when cleaning each fixture.
- Never use alcohol or solvents.

Channel types

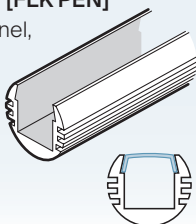
A variety of different aluminum channels are available for mounting Flex tapes. For specification sheets and installation guides please refer to the Acclaim Lighting website:

SCAN
FOR
PRODUCT
PAGE



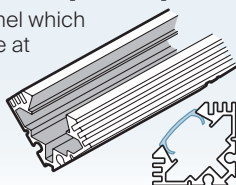
Flex pendant channel [FLK PEN]

A neatly rounded channel, designed to be suspended by wires or rods - with the option of power delivery via the suspension wires/rods.



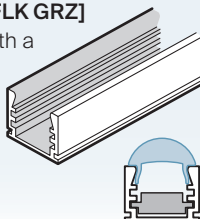
Flex 45 degree channel [FLX 45D]

A low profile channel which holds the Flex tape at 45 degrees to the mounting surface.



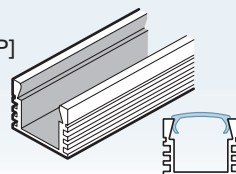
Flex graze channel [FLK GRZ]

Low profile channel with a movable mounting rail and rounded lens to produce a range of beam angles suitable for grazing surfaces.



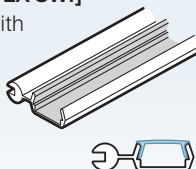
Flex mini square channel [FLX MSP]

A low profile channel with a choice of lenses.



Flex swivel channel [FLX SWI]

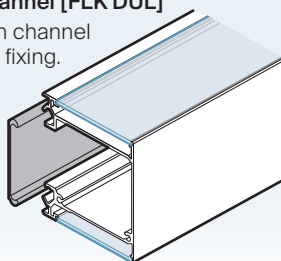
A low profile channel with swivel mounts to allow positioning at any angle. Choice of lenses.



Flex dual channel [FLK DUL]

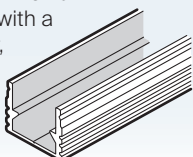
A box section channel with invisible fixing.

The upper and lower surfaces each hold multiple runs of Flex tape.



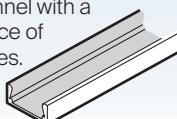
Flex channel tall profile [FLX888]

A tall sided channel to limit light spill, with a choice of clear, frosted or opal lenses.



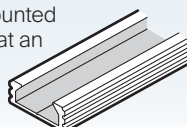
Flex mini channel [FLX MIN]

A very low profile channel with a choice of lenses.



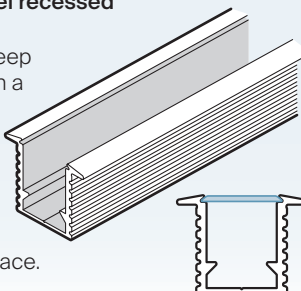
Flex channel low profile [FLX444]

A low profile channel to be mounted flat or at an angle.



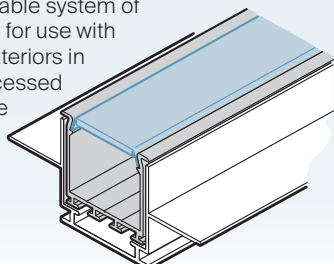
Flex channel recessed [FLX777]

A flanged deep channel with a choice of lenses to provide a neat finish when recessed within a surface.



Flex dry wall channel [FLK DWM]

An adaptable system of channels for use with drywall interiors in either recessed or surface mount configurations.



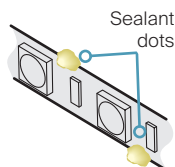
Installation

Mounting

Flex Spectrum Interior tapes are supplied with 3M™ VHB acrylic adhesive backing, protected by a peel-off paper liner. To ensure that good adhesion is achieved, ensure the mounting surface is free of grease, moisture and any contaminants.

When mounting on the sides or undersides of surfaces

We recommend that you add small dots of silicone sealant along both sides of the Flex tape (to overlap the tape edge and mounting surface) using Dow Corning® 799, 1199 or equivalent. This will provide additional stability and help to prevent any separation of the tape from the mounting surface over time. The silicone dots are best applied once the tape is fixed in place; then the whole installation should not be disturbed until the sealant has fully cured.



Cleaning and preparing the mounting surface

Most substrates are best prepared by cleaning with a 50:50 mixture of isopropyl alcohol (IPA) and water* prior to applying the tape. Exceptions to this general procedure that may require additional surface preparation include:

Heavy oils

A degreaser or solvent-based cleaner* (such as 3M™ Prep Solvent 70, 3M™ Citrus Base Cleaner, mineral spirits, naphtha or similar, subject to suitability for the surface material) may be required to remove heavy oil or grease from a surface and should be followed by cleaning with IPA/water*.

Other contamination or oxidation

Abrading a surface, followed by cleaning with IPA/water*, can remove heavy dirt or oxidation (e.g. galvanized steel) and can increase surface area to improve adhesion. Abrasion often also helps adhesion to paints and plastics. Very small scratches in the surface, generated with circular motion rather than straight-line motion, are most desirable.

** Note: These cleaner solutions contain greater than 250 g/l of volatile organic compounds (VOC). Please consult your local Air Quality Regulations to be sure the cleaner is compliant. When using solvents, be sure to follow the manufacturer's precautions and directions for use when handling such materials.*

Mounting surface advice

The 3M™ VHB adhesive applied to the back of Flex Spectrum tapes provides adhesion to a wide variety of surfaces. Advice for the preparation of certain surfaces is given below.

Wood, particle board and cement surfaces

Rough, porous or fibred materials such as wood, particleboard, cement, etc., have an open surface and require sealing to provide a unified surface for tape bonding. Common sealing materials include paint, varnish or other hard surface coatings. Fast drying 3M™ Rubber and Vinyl Spray 80 can also be used to unify the surface and improve the tape bond.

Glass, stone, ceramic and rubber surfaces

Glass, stone, ceramic or other siliceous materials are hydrophilic (water-loving) by nature. Normally, the hydrophilic nature makes pressure sensitive adhesive bond durability susceptible to change under high humidity or exposure to moisture. In basic terms, water vapor can undercut the tape bond and interfere with the normal adhesion forces. Silane coupling agents, added to the IPA/water cleaning solution, can help reduce the “water-loving” tendency of these surfaces and enhance the tape bond in high moisture environments.

Copper, brass and bronze surfaces

Copper, brass, and bronze are prone to oxidation even after the tape is applied. To prevent a weakening of the bond, a lacquer or varnish should be applied to these surfaces. Be sure to test the tape bond to the sealer on a metal surface to verify good adhesion.

PVC and rubber surfaces

Flexible PVC (vinyl) contains plasticizers that can migrate into the tape and affect adhesion. 3M™ Scotch-Grip™ Plastic Adhesive 2262, thinned, can serve as a barrier to migration. Rubber materials (e.g. EPDM, neoprene) can have low surface energy and may also contain plasticizers and oils. These require the use of an adhesion promoter for stable bond strength. Test for compatibility with flexible PVC and rubber materials by aging bonded samples for a week at 150°F (66°C) and check for softening of the adhesive, discoloration or reduction in bond strength.

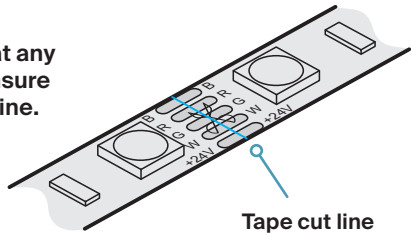
Cutting and connecting the tape

Flex Spectrum tapes are supplied with a fixed 3.28' (1m) feed cable (with bare tails).

To cut the tape

Flex Spectrum tapes are marked with a cut line every four inches (102mm) - every six LED emitters.

IMPORTANT: Do not cut the tape at any location other than the cut line. Ensure the cut is made cleanly along the line.



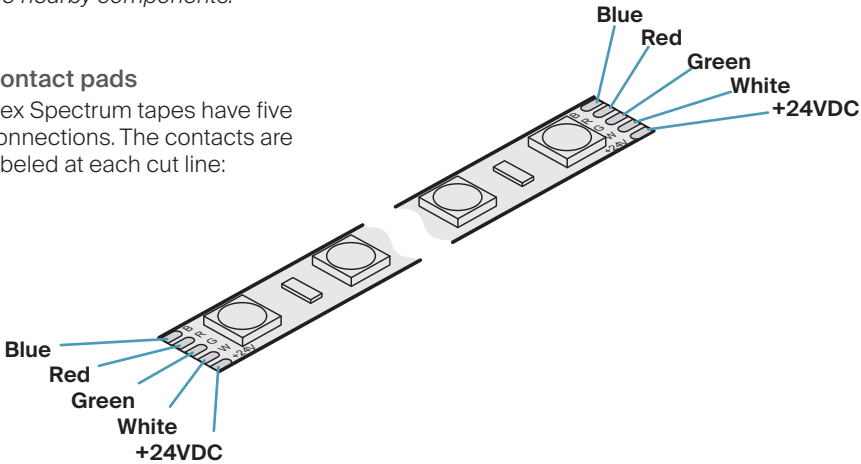
To connect the tape

Once cuts are made to a Flex Spectrum tape, connections need to be made to the new sections. Either side of each cut line are bare copper contact pads where you can make connections by soldering feed wires.

Note: When soldering, minimize the time spent heating the tape to avoid damage to the nearby components.

Contact pads

Flex Spectrum tapes have five connections. The contacts are labeled at each cut line:



Powering Flex Spectrum tapes

Flex Spectrum tapes are run at 24VDC and consume power as follows:

<i>per foot</i>	<i>per meter</i>	<i>per 16.4' (5m) spool</i>
• 5.4W	18W	90W

Note: The maximum overall tape length per run is 16.4' (5 meters). This is limited by the current capacity of the power buses within each tape.

Connection cables

The connection cables (not supplied) used to link Flex Spectrum tapes to the power/driver unit should follow these guidelines (based on a load of 0.7A for 16.4' /5m of Flex Eco tape):

- Up to 40 feet (12m) 18 AWG (0.823mm²)
- Up to 100 feet (30m) 14 AWG (2.081mm²)
- Up to 180 feet (54m) 12 AWG (3.309mm²)

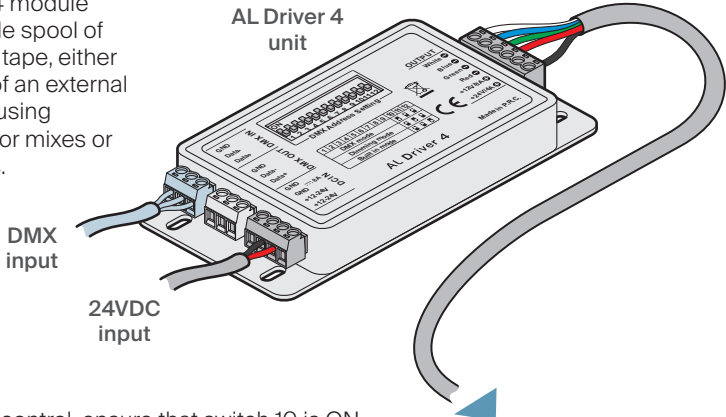
In all cases, ensure the voltage drop at the fixture end of the link cable is no greater than 8% (1.92V) of the original 24VDC supply.

Connecting and controlling

Dimmed (DMX control)

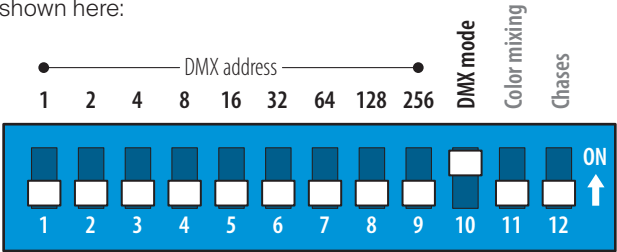
Use Acclaim Lighting AL Driver 1 [part #: ALD004] + ALPS-96-24 power supply.

The AL Driver 4 module controls a single spool of Flex Spectrum tape, either under control of an external DMX signal or using standalone color mixes or chase patterns.

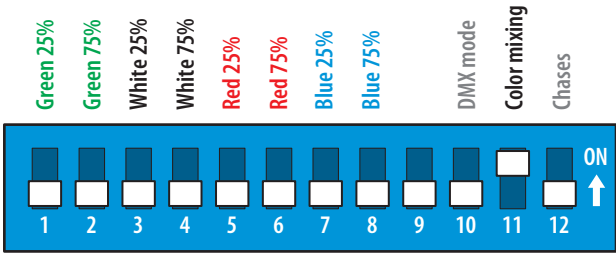


DMX control

To select DMX control, ensure that switch 10 is ON, while 11 and 12 are OFF. Switches 1 to 9 are then used to set the DMX start address. Switches 1 to 9 are 'weighted' with a value as shown here:



Note: Numerous apps are available to assist you with configuring the correct switch combinations for a given DMX address.

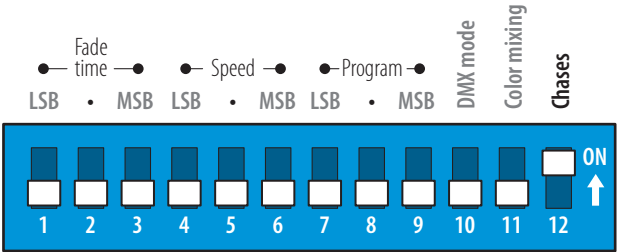


Standalone mixing

For standalone color mixing, ensure that switch 11 is ON, while 10 and 12 are OFF. Switches 1 to 8 are then used to set the overall color mix. If both the 25% and 75% switches for any color are set to ON, that color will be shown at 100%.

Standalone chases

For standalone chases, ensure that switch 12 is ON, while 10 and 11 are OFF. Switches 1 to 3 select the *Fade time* (0 to 100%); switches 4 to 6 adjust the *Speed* (0 to 30s) and 7 to 9 select the *Chase program* (9 chases).



Dimmed (0-10V, DALI or DMX control)

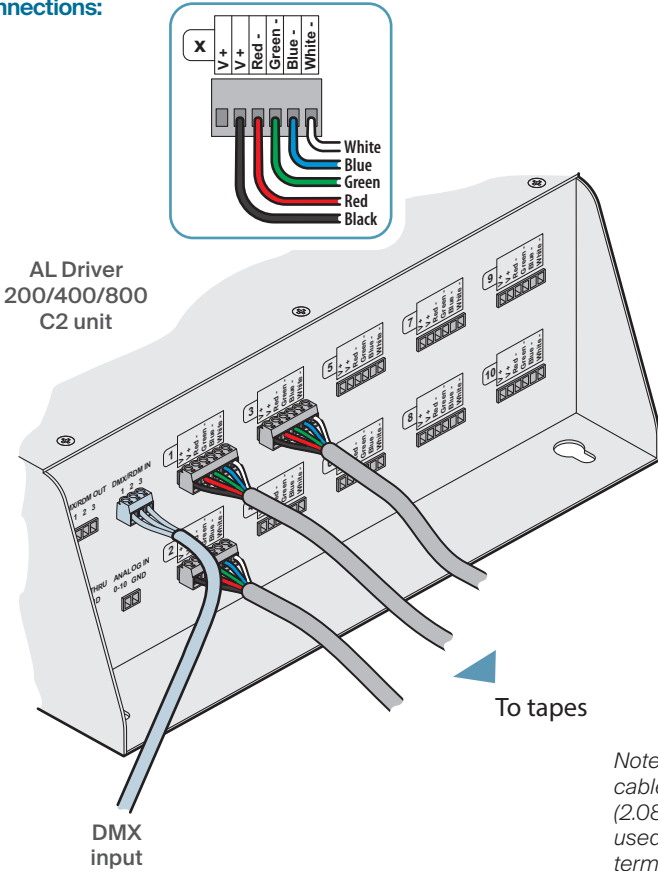
Four ports: [part #: AL Driver 200 C2]

Six ports: [part #: AL Driver 400 C2] or

Ten ports: [part #: AL Driver 800 C2].

The full size AL Drivers provide multi-channel dimming control for Flex tapes. All three models are connected and configured in similar ways; it is the number of ports and total overall current capacity that varies.

Connections:



Note: A maximum cable size of 14 AWG (2.081mm²) can be used directly within the terminal block contacts.

On all models, each port can support a maximum of **6.6A**, however, the maximum overall load across all ports must not exceed the following:

	AL Driver 200 C2	AL Driver 400 C2	AL Driver 800 C2
Maximum overall current	8A	16.5A	33A
Flex Spectrum	2 spools	4 spools	8 spools

Further information

Troubleshooting

No light output is visible when expected.

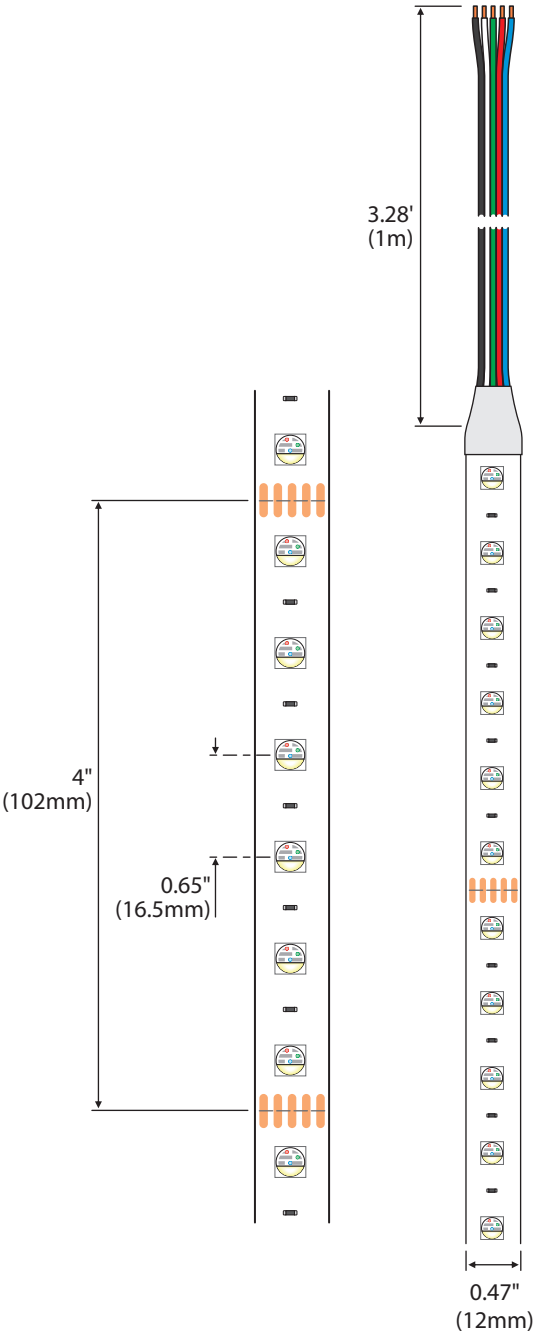
- Check that power is correctly applied to the fixture and that there is no damage to the power input cord.
- Check that the connections to the feed cable have the correct polarity.
- Check that the DMX address set within the driver module matches that being output by the controlling source device.

Specifications

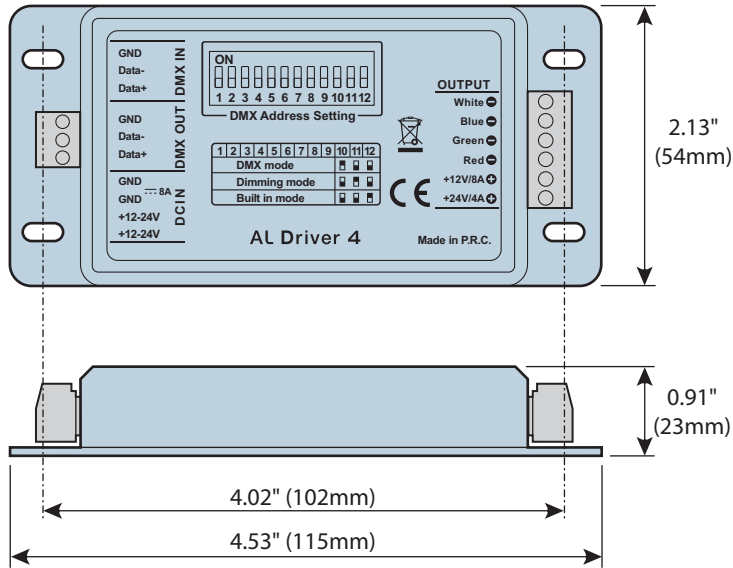
Beam angle	120°
Color temperature (CCT)	RGB plus 3000K white emitters
Lumen maintenance (L70)	50,000 hours (25°C max)
Operating voltage	24VDC
Power consumption	See "Powering Flex Spectrum tapes" on page 7
Dimming control	Pulse width modulation
Maximum overall length	16.4' (5m)
Cut points	Every 4" (102mm)
Ingress protection	IP20 (dry location)
Dimensions (L x W x H)	16.4' x 0.47" x 0.09" 5000 x 12 x 2.4mm
Operating temperature	32°F to 104°F 0°C to 40°C
Housing	Copper strip, white coating 3M™ VHB™ adhesive backing
Certifications	



Dimensions - Flex Spectrum Interior

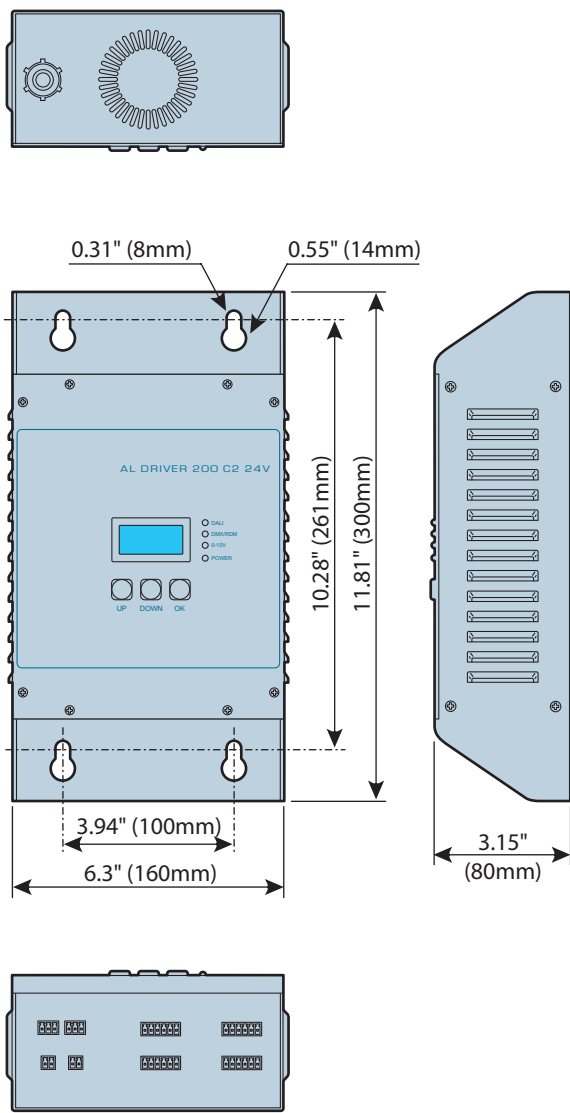


Dimensions - AL Driver 4



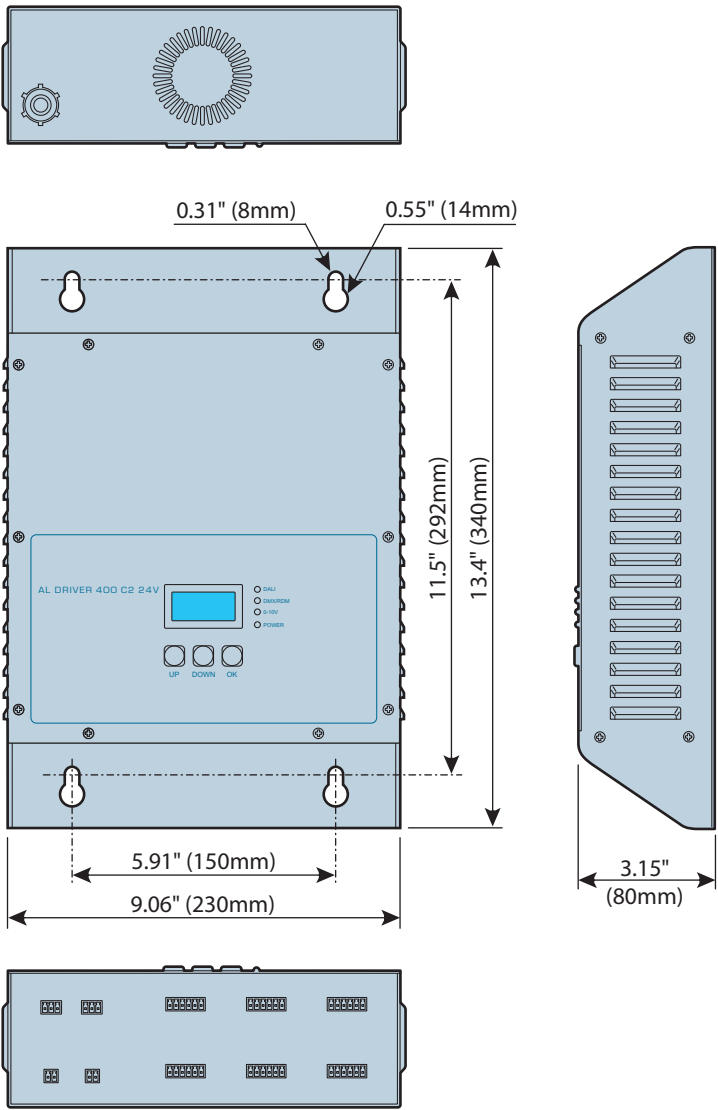
Weight: 0.1 lbs (45g)

Dimensions - AL Driver 200 C2



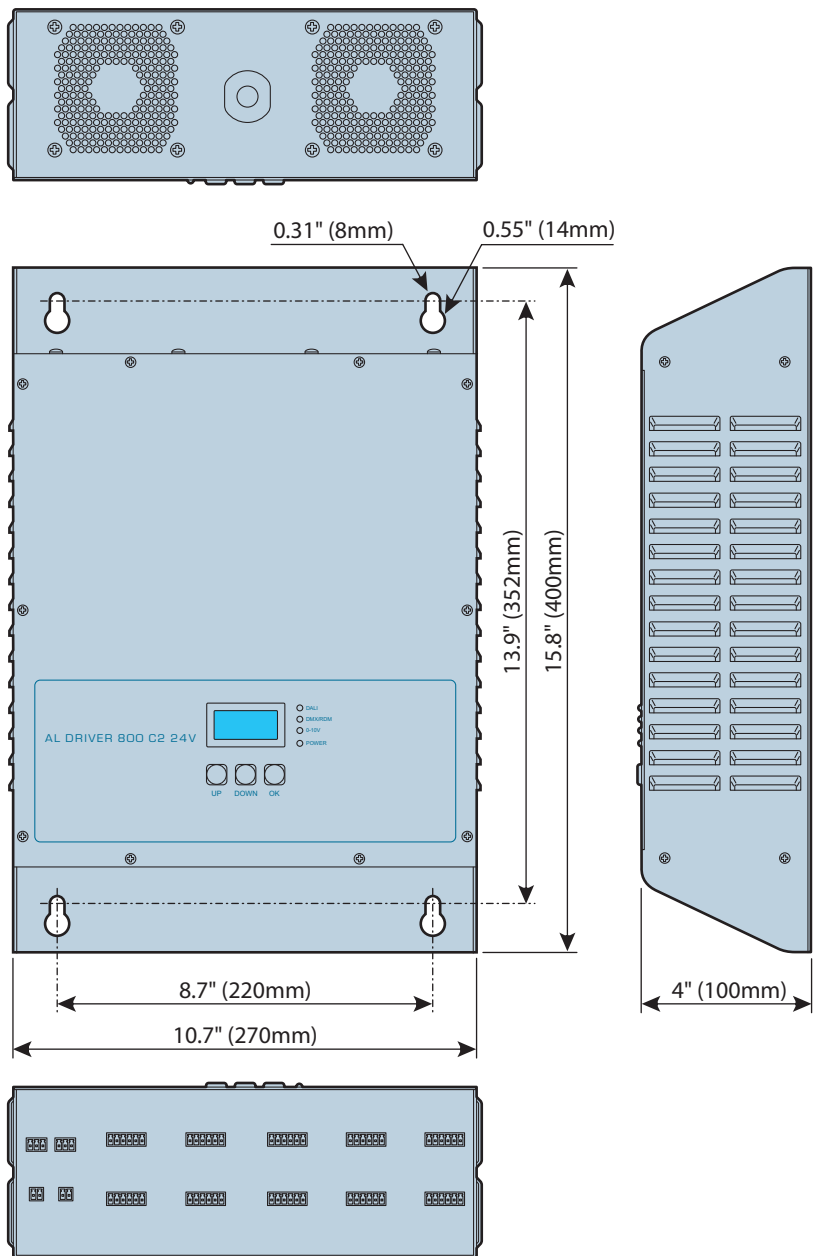
Weight: 5.29 lbs (2.4kg)

Dimensions - AL Driver 400 C2



Weight: 8.4 lbs (3.8kg)

Dimensions - AL Driver 800 C2



Weight: 12.1 lbs (5.5kg)

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:

- Flex Graze: 10 years (3,652 days) from the date of purchase.
- Fixtures: 5 Years (1,825 days) from the date of purchase.
- Drivers, power supplies and accessories: 5 Years (1,825 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 manufactured 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.

