

Flex Tube™ SE [SC and RGB]

CONTENTS

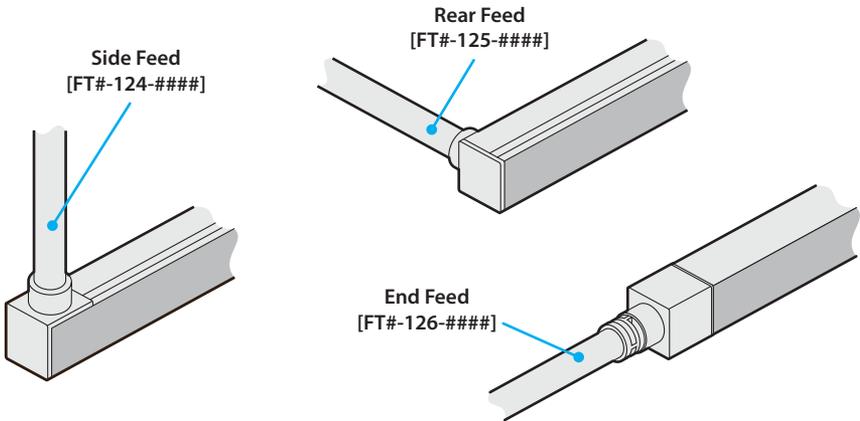
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INTRODUCTION

WELCOME

Welcome to the Flex Tube SE range from Acclaim Lighting. These flexible LED powered strips produce a greatly homogenized light output along their full length to provide a viable alternative to other linear light sources, such as neon or cold cathode. Designed from the outset for external applications, Flex Tubes are rated to IP68 and can be submersed up to 3 feet (1m) in depth.

Three model types are available, categorized by the approach of the main feed connection relative to the illuminated front face:



All three of these models are available with various single color (SC) and color mixing (RGB) options:

- White: 2700K, 3000K, 3500K or 4000K
- Red
- Green
- Blue
- RGB

A range of dimming driver and static power supply options are available from Acclaim Lighting. See the section *Connecting and controlling Flex Tubes* on page 12 and also www.acclaimlighting.com for further details.

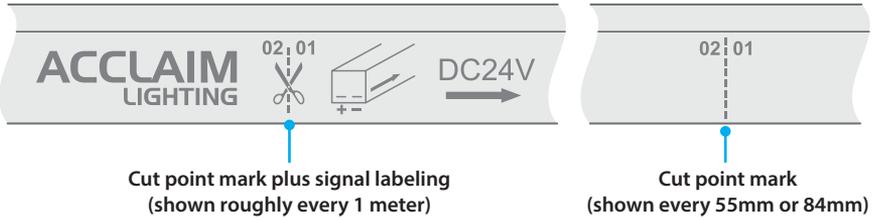
SAFETY

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

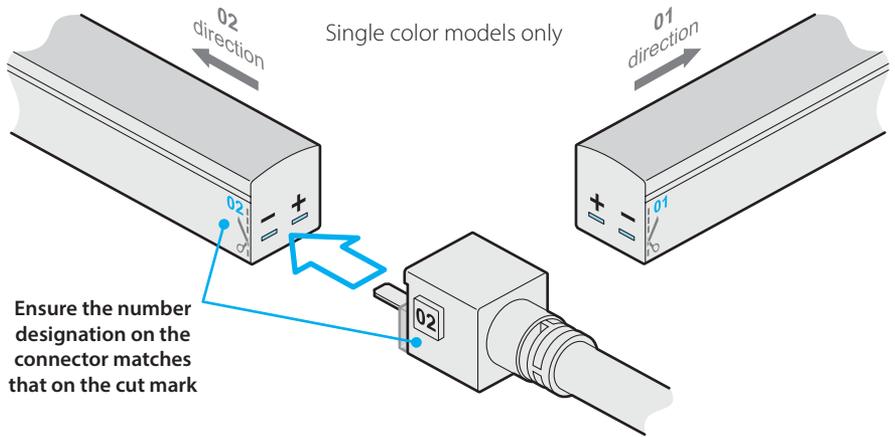
INSTALLATION

FLEX TUBE SE ORIENTATION (SC MODELS ONLY)

When attaching connections to cut lengths of Flex Tube SE (SC models only, end connectors are not available for RGB variants) it is important to know which way it is orientated. Each Flex Tube SE has an 01 end and an 02 end; these are marked at regular intervals at the cut marks (every 2.16"/55mm on SC models. Every 3.31"/84mm on RGB models):

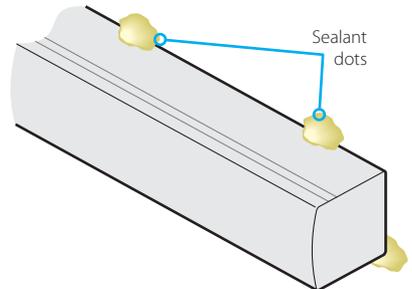


The separate feed connectors are marked with an **02**. You must ensure that the feed connector is attached at the correct end of the Flex Tube, so that its designation matches the contacts into which it is being inserted. Failure to do this will mean that the connections become reversed.



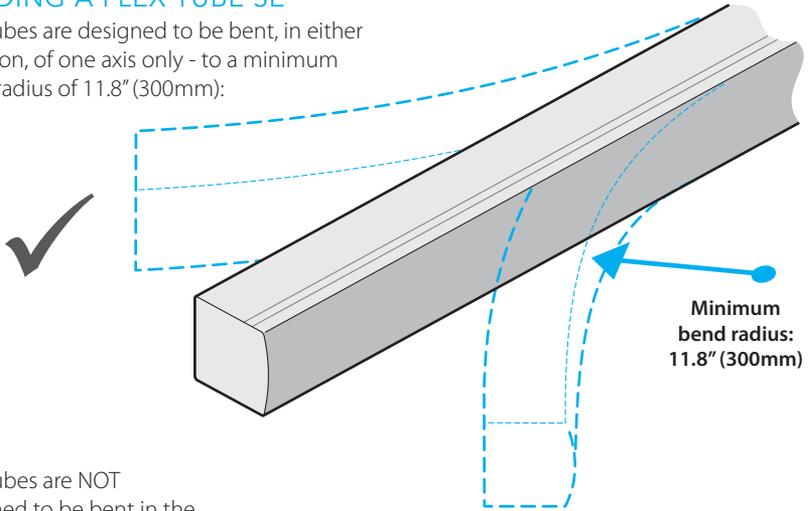
WHEN MOUNTING ON THE SIDES OR UNDERSIDES OF SURFACES

We recommend that you add small dots of silicone sealant along both sides of the Flex Tube (to overlap the tape edge and mounting surface) using Dow Corning 700 or equivalent. This will provide additional stability and help to prevent any separation of the tube from the mounting surface over time. The silicone dots are best applied once the Flex Tube is fixed in place; then the whole installation should not be disturbed until it the sealant has fully cured.

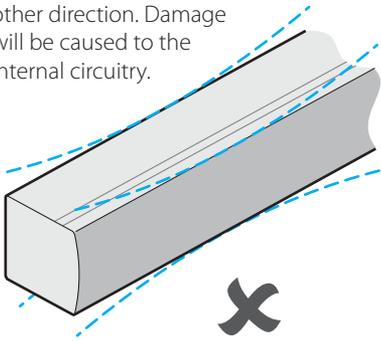


BENDING A FLEX TUBE SE

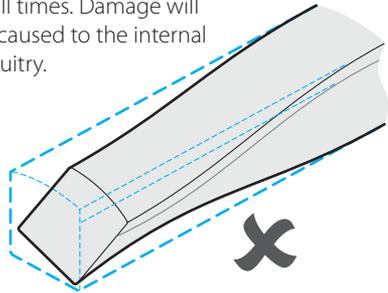
Flex Tubes are designed to be bent, in either direction, of one axis only - to a minimum bend radius of 11.8" (300mm):



Flex Tubes are NOT designed to be bent in the other direction. Damage will be caused to the internal circuitry.



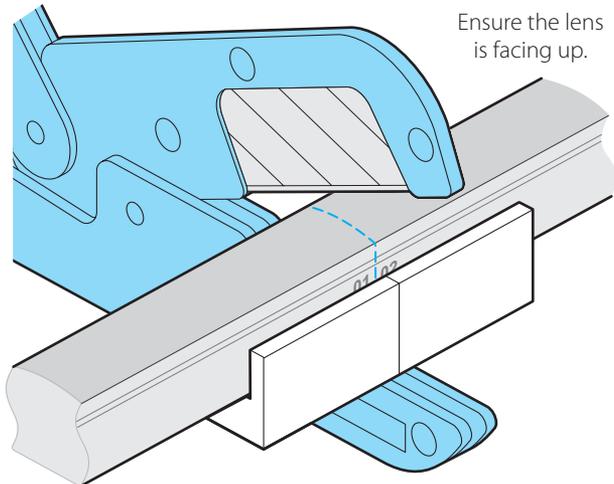
Avoid twisting Flex Tubes at all times. Damage will be caused to the internal circuitry.



CUTTING A FLEX TUBE SE

Each Flex Tube SE is marked at regular intervals with cut marks (SC models: every 2.16"/55mm. RGB models: every 3.31"/84mm). It is important that cuts are only made at these points to ensure internal components are not damaged and also that the connection terminals are readily available.

All cuts should be made using the special shears supplied within the toolkit.



FEED, END CAP AND MOUNTING KITS

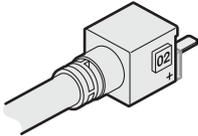
The following optional kits are available for use with the Flex Tube SE:

- **Feed cable kit** - used for linking a Flex Tube with driver circuitry. See below
- **End cap kit** - used to seal an open end of Flex Tube. See page 8
- **Self-locking mounting channel kit** - used to fix a Flex Tube to a surface. See page 10

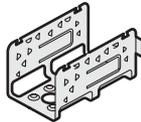
FEED CABLE KIT (SC MODELS ONLY)

This kit adds a connection point to a Flex Tube SE.

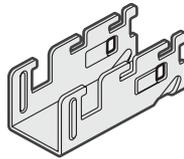
KIT CONTENTS



Feed connector
with silicone gasket
[x1]



Grip clip
[x1]

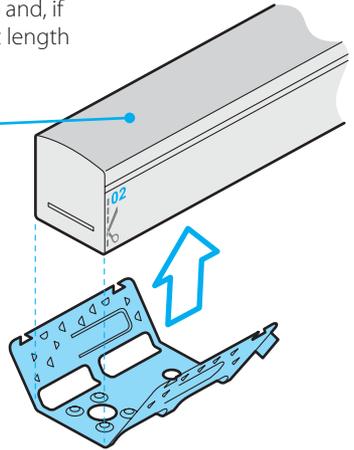


Joiner
[x1]

TO INSTALL A FEED CABLE KIT

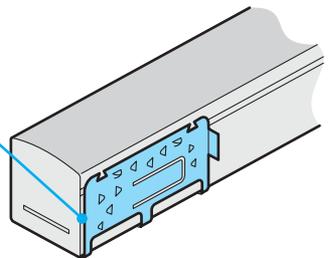
- 1 Check the orientation of the Flex Tube SE (see page 3) and, if necessary, carefully cut the Flex Tube SE to the correct length (see page 4).
- 2 Fit the grip clip to the **02** end of the Flex Tube SE so that wraps tightly around the rear face...

Flex Tube
front face

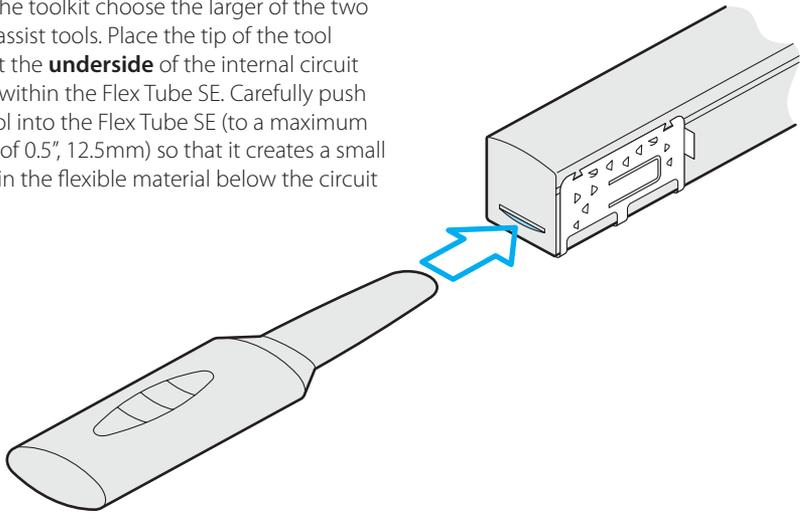


Align the 'non-tabbed'
edge of the grip clip
with the cut edge of the
Flex Tube SE

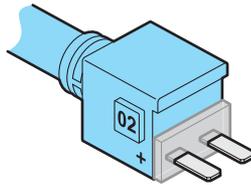
...and its edge (that does not have the small tabs) is aligned with the cut edge of the Flex Tube SE.



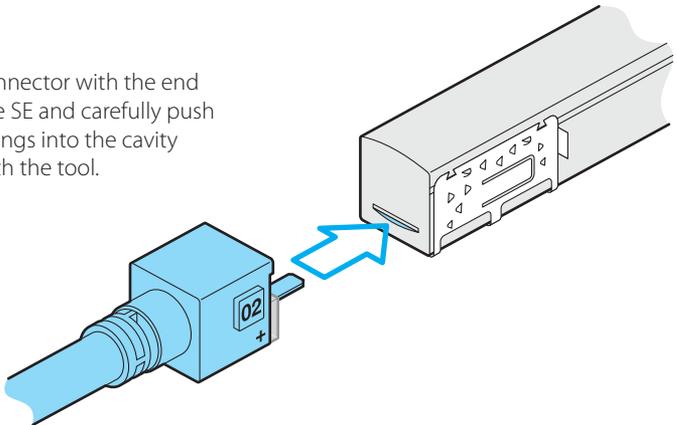
3 From the toolkit choose the larger of the two insert assist tools. Place the tip of the tool against the **underside** of the internal circuit board within the Flex Tube SE. Carefully push the tool into the Flex Tube SE (to a maximum depth of 0.5", 12.5mm) so that it creates a small cavity in the flexible material below the circuit board.



4 Check that the silicone gasket is correctly positioned over the contacts of the feed connector.

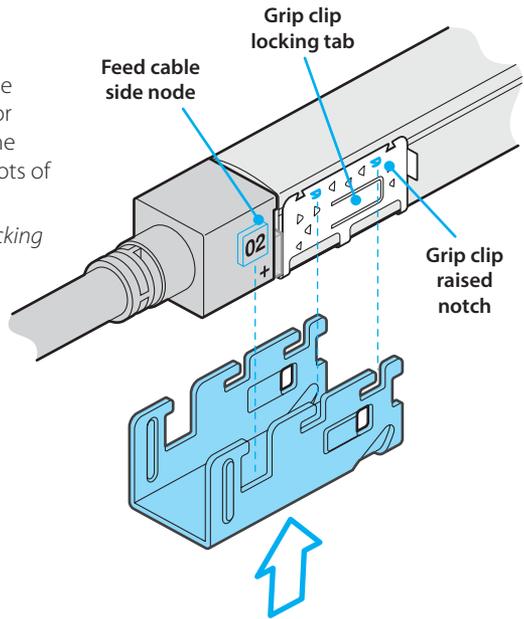


5 Line up the feed connector with the end face of the Flex Tube SE and carefully push the two contact prongs into the cavity that you created with the tool.

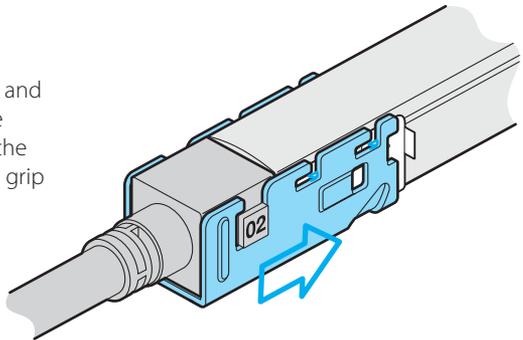


- 6 Ensure the feed connector is fully inserted into the Flex Tube SE. Then, carefully slide the joiner onto the underside of the assembly so that the two side nodes of the feed connector and the four raised clip notches of the grip clip slide into the appropriate slots of the joiner.

Note: You will need to compress the locking tabs on either side of the grip clip.



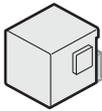
- 7 When the feed cable, Flex Tube SE and grip clip are fully seated within the joiner, slide the joiner (away from the cable) until the locking tabs of the grip clip audibly click into place.



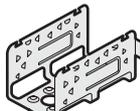
END CAP KIT

Each Flex Tube SE is supplied with both ends fully sealed. However, if shorter lengths need to be made, you will need to seal the cut ends to prevent moisture ingress (for external installations). This kit is used to seal off a bare end of Flex Tube SE.

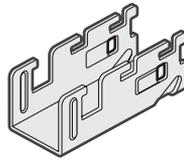
KIT CONTENTS



End cap with
silicone gasket
[x1]



Grip clip
[x1]

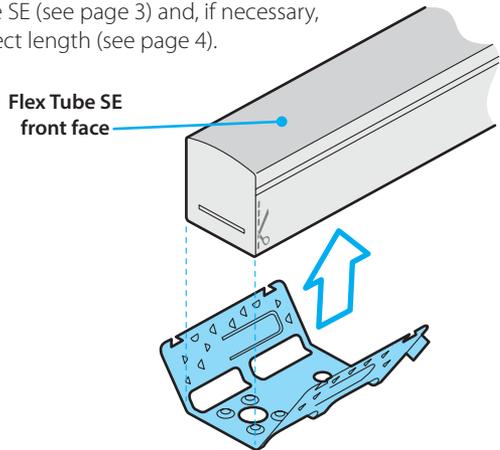


Joiner
[x1]

TO INSTALL AN END CAP KIT

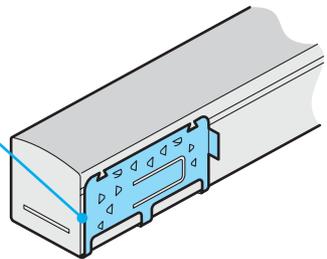
1 Check the orientation of the Flex Tube SE (see page 3) and, if necessary, carefully cut the Flex Tube to the correct length (see page 4).

2 Fit the grip clip to the end of the Flex Tube SE so that wraps tightly around the rear face...

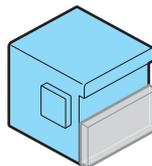


Align the 'non-tabbed' edge of the grip clip with the cut edge of the Flex Tube SE

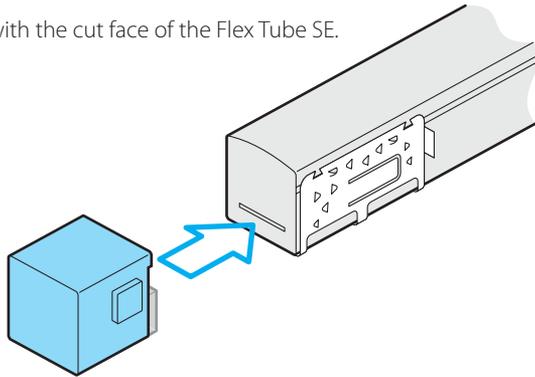
...and its edge (that does not have the small tabs) is aligned with the cut edge of the Flex Tube SE.



3 Check that the silicone gasket is correctly positioned on the end cap.

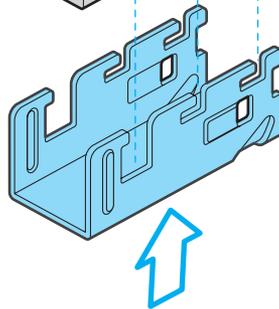
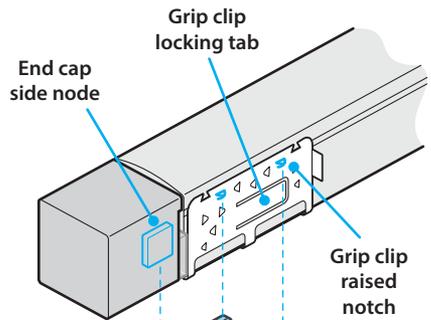


4 Line up the end cap with the cut face of the Flex Tube SE.

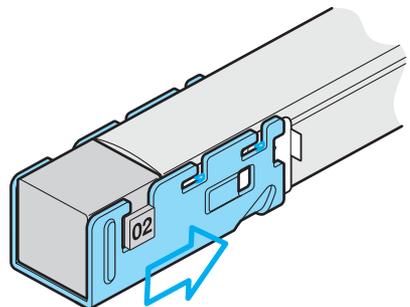


5 While holding the end cap in place, carefully slide the joiner onto the underside of the assembly so that the two side nodes of the end cap and the four raised clip notches of the grip clip slide into the appropriate slots of the joiner.

Note: You will need to compress the locking tabs on either side of the grip clip.



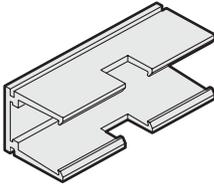
6 When the end cap, Flex Tube SE and grip clip are fully seated within the joiner, slide the joiner (away from the end cap) until the locking tabs of the grip clip audibly click into place.



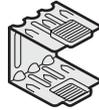
SELF-LOCKING MOUNTING CHANNEL KIT

These kits are used to mount Flex Tube SE onto solid surfaces.

KIT CONTENTS



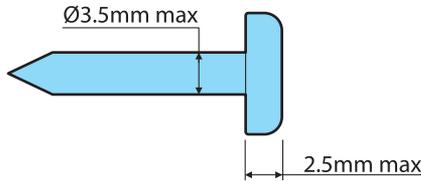
Mount channel
(5cm or 1 meter lengths)



Grip clip
(mount-type)

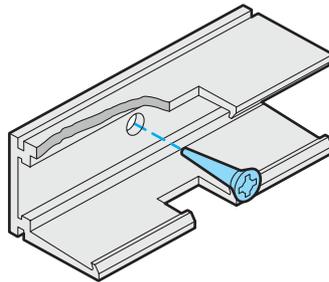
TO INSTALL A SELF-LOCKING MOUNTING CHANNEL KIT

1 Choose appropriate screws and fixings for the intended mounting surface. The limited space within the mount channel restricts the screws used to the following dimensions:

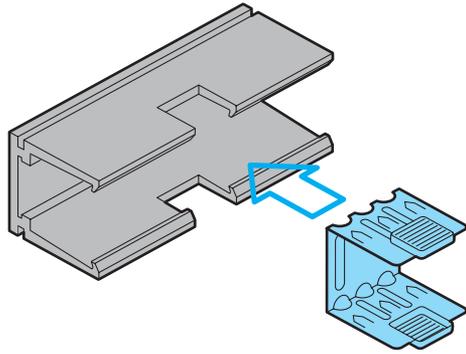


2 Attach the mount channel to the intended surface, taking all appropriate precautions as you do so.

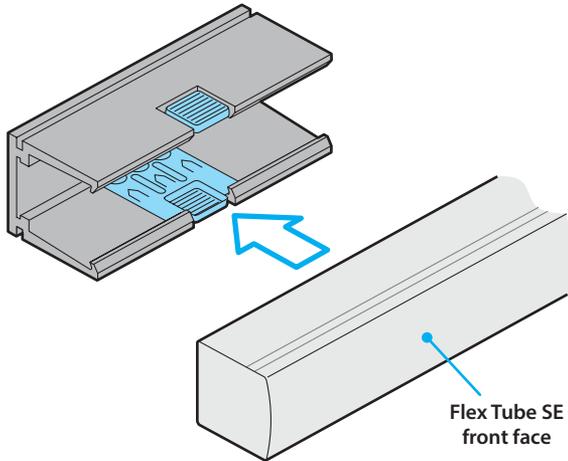
- 5cm mounts have just one hole.
- 1 meter mounts have five holes, spaced 20cm apart.



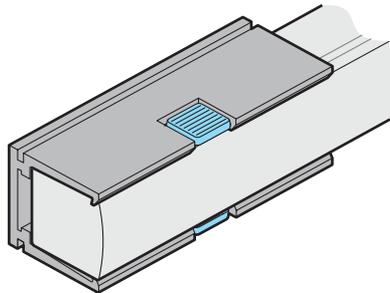
- 3 If they are not already in position, place the grip clip(s) into the mount channel.



- 4 Push the Flex Tube SE (front face outwards) fully into the mount channel until it engages fully with the grip clip(s).



- If you should need to remove the Flex Tube SE, press and hold the two raised buttons while you gently pull the Flex Tube SE out from the mount channel.



CONNECTING AND CONTROLLING FLEX TUBES

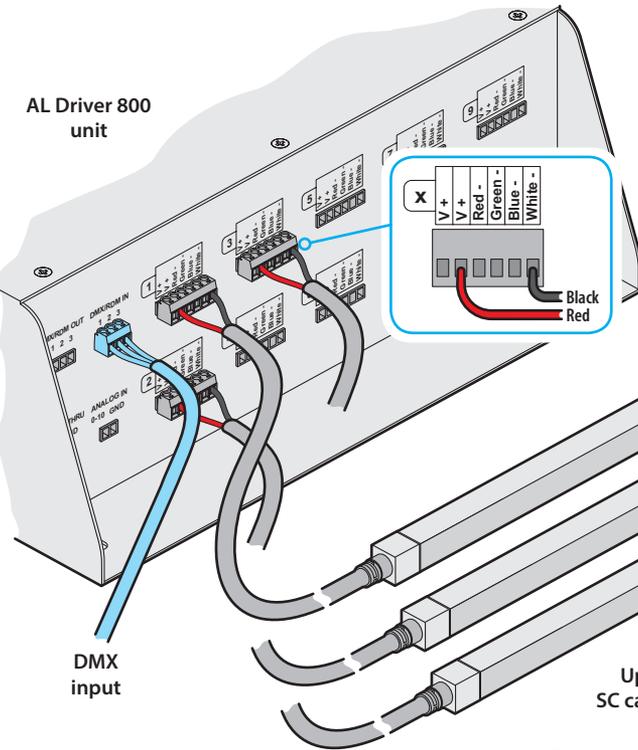
Flex Tube SE are run at 24VDC and consume 3.6W per foot (or 12W per meter).

Connection cables (not supplied) used to link Flex Tubes to the power/driver unit should follow these guidelines:

- Up to 40 feet (12m) 18 AWG (0.823mm²)
- Up to 100 feet (30.5m) 14 AWG (2.081mm²)
- Up to 180 feet (55m) 12 AWG (3.309mm²)

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

DMX (OR 0-10V) DIMMING CONTROL (SC MODELS)



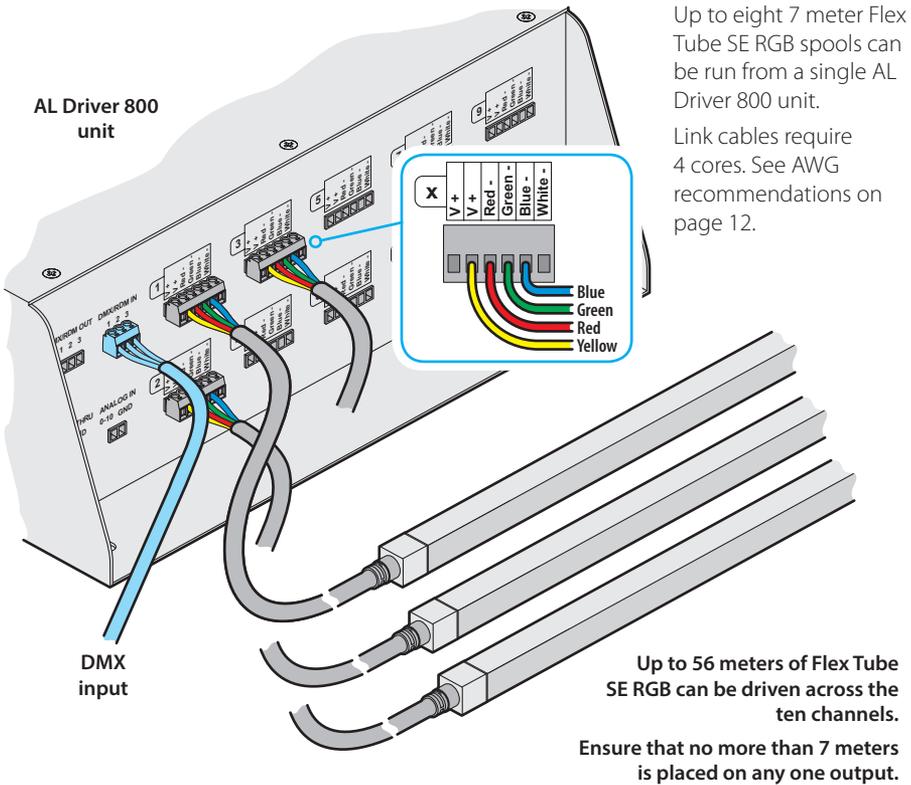
Up to six 10 meter Flex Tube SE SC spools can be run from a single AL Driver 800 unit.

Link cables require 2 cores. See AWG recommendations above.

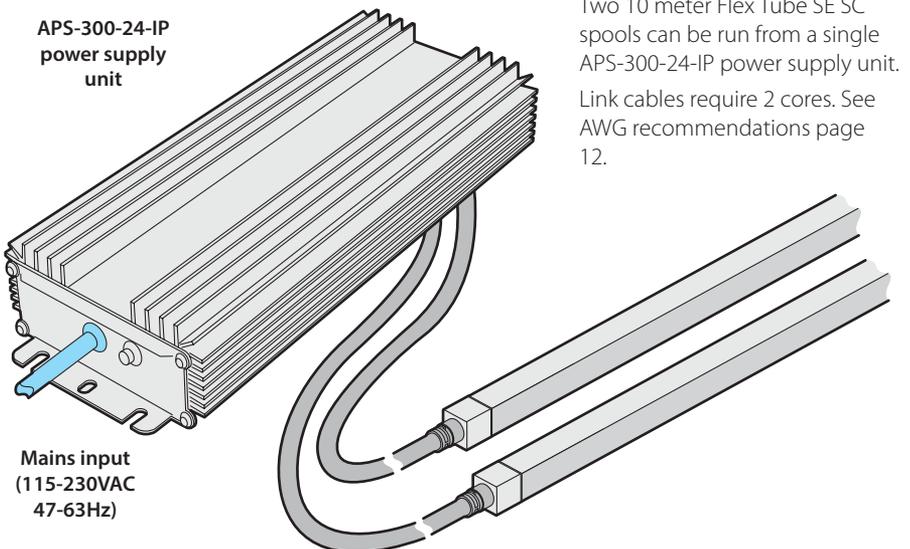
Up to 60 meters of Flex Tube SC can be driven across the ten channels.

Ensure that no more than 10 meters is placed on any one output.

DMX DIMMING CONTROL (RGB MODELS)



NON-DIM POWER (SC MODELS)



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.
- If external DMX control is being used, check that the DMX address set within the fixture matches that being output by the controlling source device.

FLEX TUBE SE (SC AND RGB) SPECIFICATIONS

Beam angle	160°
Lumens per foot	SC: 171 (54 center beam candlepower) - 3500K, >80 CRI RGB: <i>Testing in progress</i>
Operating voltage	24VDC
Power consumption	3.6W per foot 12W per meter 120W per 32' (10m) SC spool 84W per 23' (7m) RGB spool
Dimming	Pulse Width Modulation
Maximum overall length	32' (10m)
Installation temperature	32°F to 113°F 0°C to 45°C
Operation temperature	-40°F to 131°F -40°C to 55°C
Housing	UV coated, flexible silicone jacket
Ingress protection	IP68 wet location submersible to 3' (1m)
Impact resistance	IK08 Protected up to a 5 Joule impact
Dimensions (W x H x L)	SC: 0.63" x 0.63" x 32' (16mm x 16mm x 10m) RGB: 0.63" x 0.63" x 23' (16mm x 16mm x 7m)
Certifications	



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.
- Drivers, power supplies and accessories: 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