

## Precautions

### Installation Notes

- Install in accordance with the IEE wiring regulations and building regulations.
- This product must be installed by a suitably competent person.

### IMPORTANT

- Please read these instructions before commencing any work.
- Please retain these instructions for future reference.
- Please refer to product listing for detailed information.
- Remove all packaging before connecting to power supply.
- Only use with Chronos range.

### Electrical

- Do not connect directly to mains electrical supply.
- Switch the power off at the mains supply before installing or maintaining this fitting.
- Ensure others cannot restore the electrical power supply without your knowledge.
- Ensure the product is in good working condition. If there is visible damage do not use. Regularly inspect for signs of damage.
- This product must be used with a good quality constant voltage LED driver. Ensure that the voltage output of the driver matches rated voltage of the LED tube.
- Ensure that the controller works with a 24V system and IC type (UCS1903) matches the LED tube.
- Connect the tube with correct polarity. Incorrect connection can cause damage.
- Ensure that the power capacity of the LED driver is greater than the total load of all the LED tubes connected to it.
- The LED tube and cable should be protected by a fuse or equivalent device installed between the driver and LED tube and as close to the driver as possible.
- Ensure that the total current used does not exceed the maximum capacity of the controller and cabling (7A total).
- The LED tube should only be used with the recommended electrical accessories.
- Protect the tube from static electricity. Do not disassemble the tube. Not user serviceable.

### Mechanical

- Do not use the product if damaged. Do not use with worn or damaged wires or components.
- The product will generate heat during use. It should be installed in a well ventilated location.
- Fully uncoil all cables. Do not cover or conceal.
- The tube should be mechanically supported with the recommended mounting accessories.
- Protect the tube from mechanical damage. Take care not to dislodge any components during installation. Ensure that wires connecting the tubes cannot be pulled.
- Ensure suspension accessories are correctly fitted, fully seated and release pins are fully locked.
- Tubes must not be used as a load bearing structural element.

### Environmental

- The product should only be used in an environment with an ambient temperature between +5°C to +40°C.
- The temperature of the LED tube should never exceed 60°C when in operation.
- This product is not waterproof. Not suitable for permanent outdoor installation.
- IP65 products should only be exposed to water for short periods of time, and humidity of no more than 80%.
- Only install in a location free from chemicals, corrosives, gases and flammable materials.

### Product Warranty

1. A warranty period is provided for products in normal use. For any faults arising during the period that are confirmed to be quality related by inspection by the company, a product of the same specification will be replaced for free.
2. The warranty does not cover any of the following:
  - ( 1 ) Any product damage due to usage not allowed in the instructions.
  - ( 2 ) Any product damage due to disassembling or wrong operation by the user.
  - ( 3 ) Severe appearance damage or deformation of the product.

## LED Neon Tubes

### ► Chronos RGB Pixel Tube Light

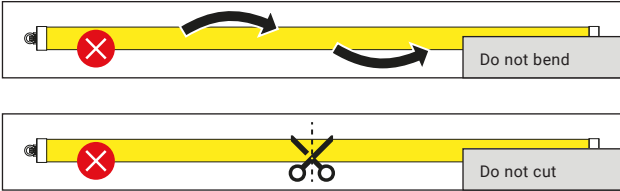
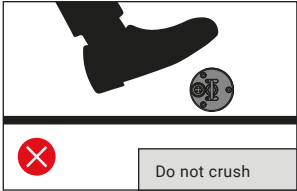
## User Manual

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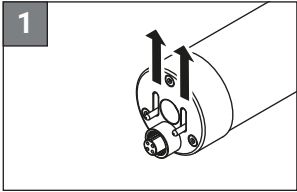


v4

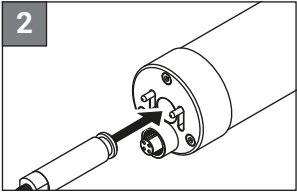
Precautions



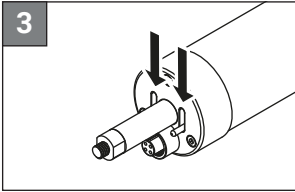
Mounting / Suspending



Move the pins on the endcap to open the connection.

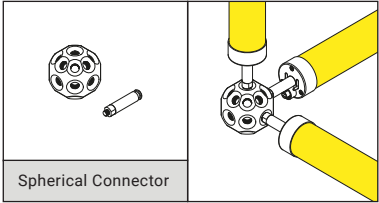


While open, insert the connector into the endcap.

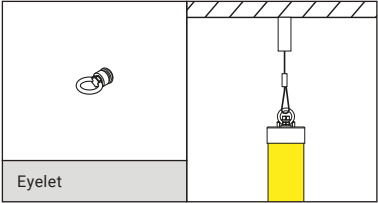


When connector is fully inserted, release pins to lock into place.

**NOTE:** Repeat the process to remove the connector.

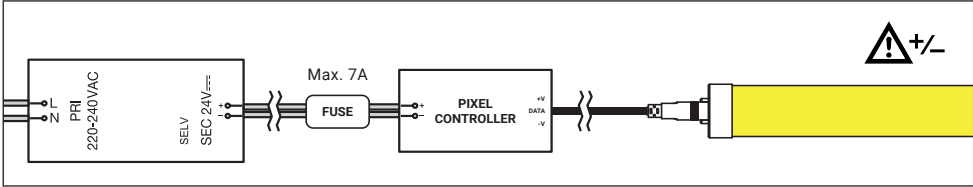


Spherical Connector



Eyelet

Wiring



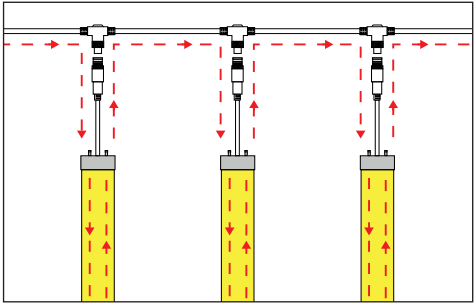
Wire Colour	Controller
Red	DCV+
Green	DI (Data In)
Blue	DO (Data Out)
Black	GND-

**WARNING:** This product must be installed by a suitably competent person. Check polarity (+/-) is correct before turning on.

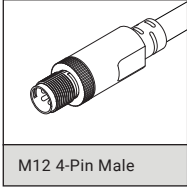
**WARNING:** Never connect DATA to +V.

Signal Flow

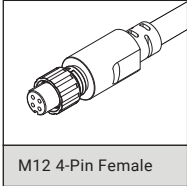
Signal flows through each tube before passing onto the next tube. Connect LED tubes using t-junction cables. For installations where more than 5 metres of cable is used, boost the signal using an amplifier. Only use the recommended accessories.



Cabling



M12 4-Pin Male



M12 4-Pin Female

Amplifier		Desc	
TC-PA-10M-EXT		For installs of 5M+	
Extension Cable		Desc	
TC-PA-EXT0.2		0.2M, Right Angle	
TC-PA-EXTF0.5		0.5M, Extension	
TC-PA-EXTF1		1.0M, Extension	
TC-PA-EXTF2		2.0M, Extension	
TC-PA-EXTF3		3.0M, Extension	
TC-PA-EXTF5		5.0M, Extension	
T Cable		Desc	
TC-PA-1-T-Cable		1pc T-Junction Cable	
TC-PA-5-T-Cable		5pc T-Junction Cable	

Troubleshooting

- ▶ **Tube doesn't respond to controller**  
Check that the data output of the controller is connected to the data input of the tube, not the output.
- ▶ **Tube doesn't respond to controller**  
Check that the input power of the controller is the same as the input power of the tube (24V).
- ▶ **The tube lights but the animation is distorted**  
Check that the IC type setting on the controller matches the IC type of the LED tube.
- ▶ **Tube lights single colours but animation is distorted.**  
Check that the GND of each tube light is connected to the GND on the controller.  
Check that the length of the cables between the controller and data-in on the tube are shorter than 5 metres. For more than 5 metres, use an amplifier.