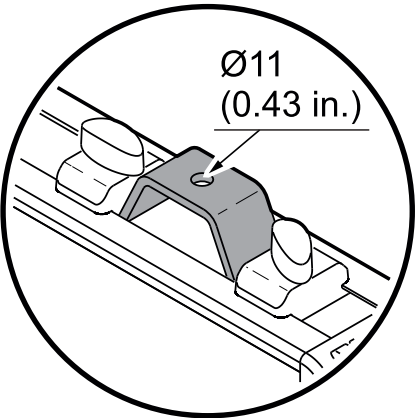
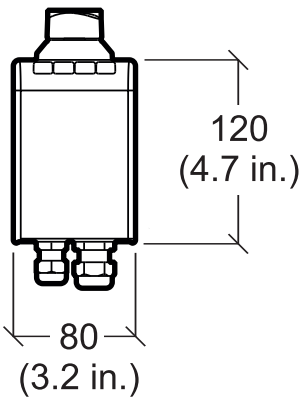
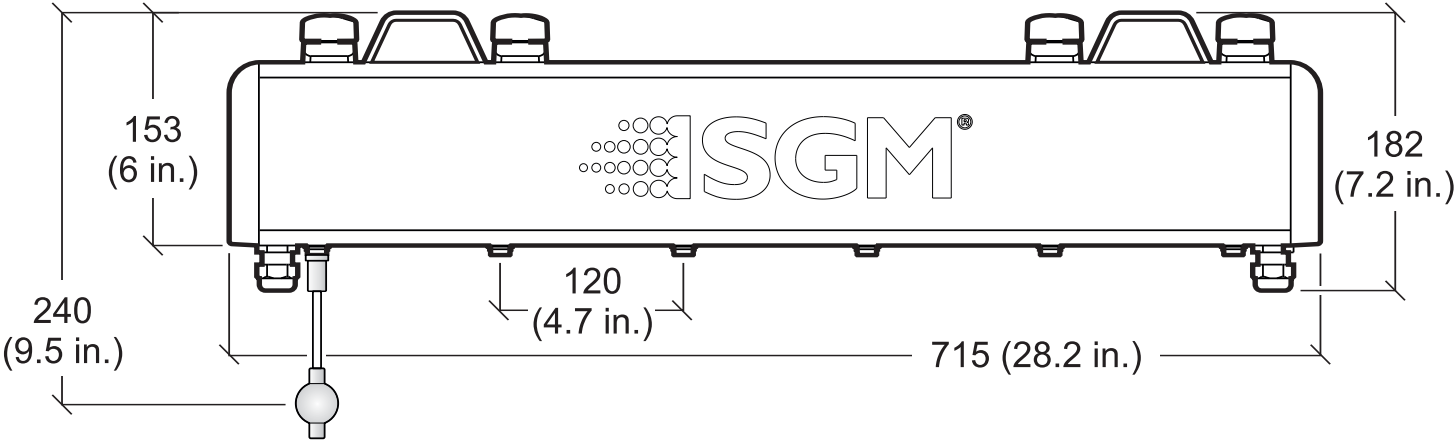


 **SGM**[®] TLD-612A
Artnet Pixel Driver



TLD-612A dimensions



All dimensions in mm.
Drawing not to scale.

TLD-612A

USER MANUAL REV. 2

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English edition

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Safety information



WARNING! Read the safety precautions in this section before installing, powering or operating this product.

The TLD-612A is intended for professional use only. It is not suitable for household use.

Review the following safety precautions carefully before installing or operating the device.

Preventing electric shock



DANGER! Risk of electric shock. Do not open the device.

- Do not open the device; there are no user-serviceable parts inside.
- Ensure that power is cut off when wiring the device to the AC mains supply.
- Ensure that the device is electrically connected to earth (ground).
- Do not apply power if the device is in any way damaged.
- Do not immerse the fixture in water or liquid.
- Use only a source of AC power that complies with local building and electrical codes and has both overload and earth leakage protection.
- Never attempt to bypass the fuse. Always have defective fuses replaced with ones of the specified type and rating.
- Verify that the power feed cable is rated for the total current draw of all daisy-chained products.



WARNING! Take measures to prevent personal injury.

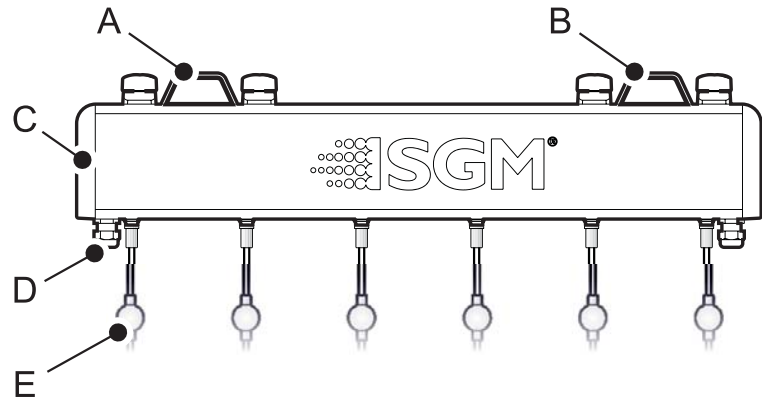
- Install only in a well-ventilated space.
- Do not paint, cover, or modify the device.
- Take precautions to prevent injury due to falls when working at height.
- Ensure that the device is always securely fastened with suitable hardware.
- For elevated installations, always comply with relevant load dimensioning and safety standards and requirements.

Overview

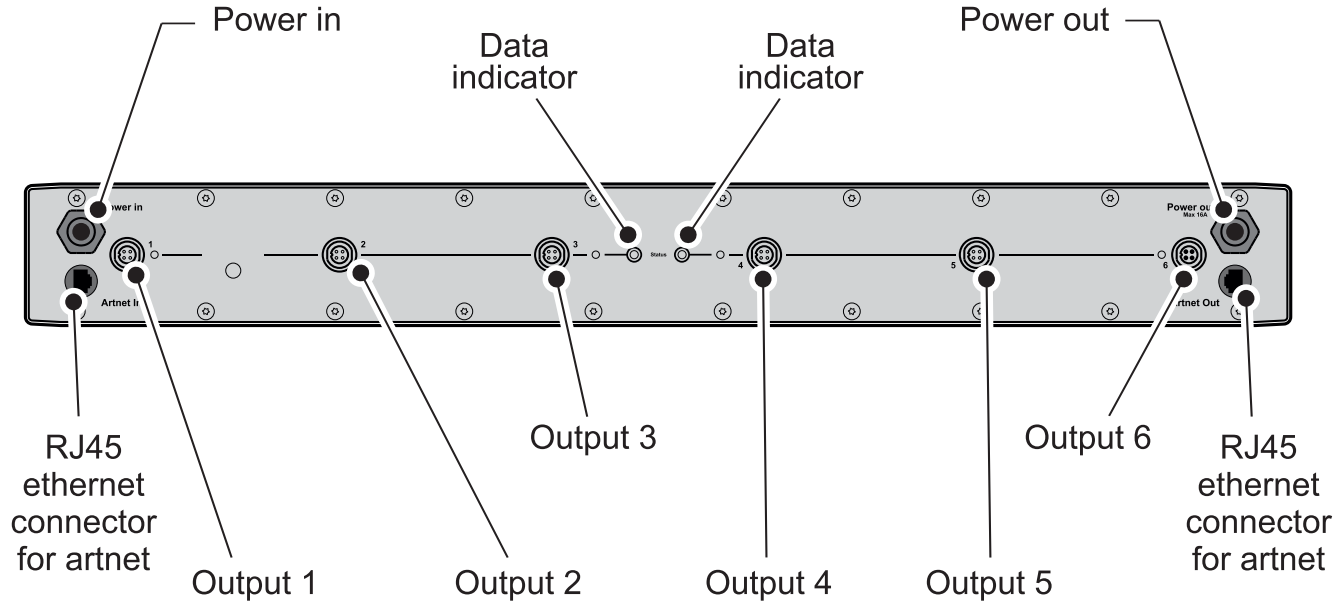
The TLD-612A is an Artnet pixel driver that can be used to drive six SGM LT-100s, six SGM LT-200 or six strings of SGM LED Ball pixel luminaries (each string can contain up to 56 led balls), or any combination of the three product types. Up to five TLD-612As can be configured and controlled when daisy-chained together and connected to a computer using an Ethernet cable, and up to five TLD-612A's per port can be daisy-chained when one or more Ethernet switches are used. TLD-612As can be configured using the SGM Artnet Configurator (available from <http://www.sgmlight.com>) and controlled using a lighting controller or computer-based Artnet controller.

Unpack the device and inspect it to ensure that it has not been damaged in transport. The fixture is IP-65 rated. This means that it is protected from ingress of dust and lower pressure jets of water from any direction.

- A. Mounting bracket left
- B. Mounting bracket right
- C. Cabinet
- D. Connections
- E. LED pixel outputs from 1 to 6 rows
(Illustrated by LED Balls)

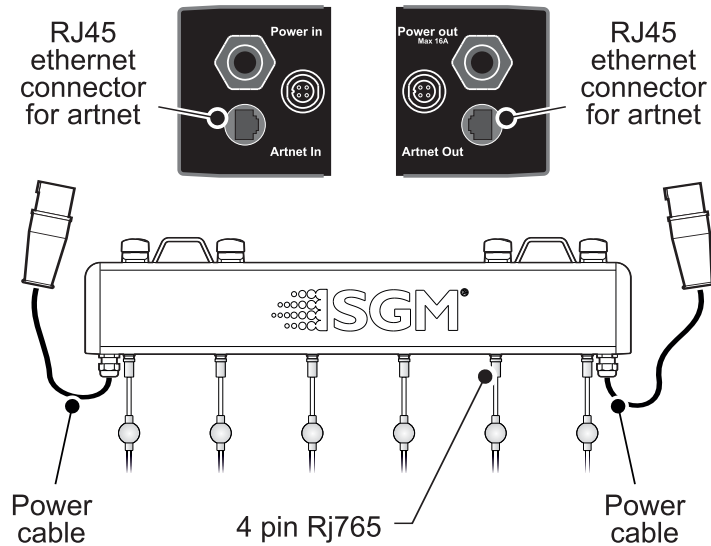


Cabling and connections



The following connectors are used on the TLD-612A:

- IP67-rated RJ45 Ethernet connectors, for artnet input and output.
- 3 lead power cable for power input and output with CEE cord caps.
- 6 x RJ765 output connectors supply 12V DC power and data to the LED products.



Rigging the TLD-612A



WARNING! Always secure an elevated TLD-612A with a safety cable as backup

The TLD-612A may be installed in any orientation.

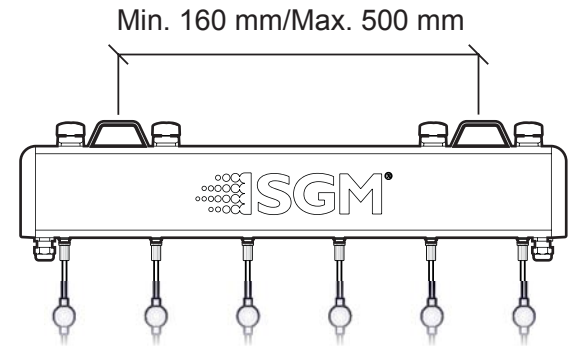
Before installing TLD-612As at elevation, ensure that the:

- Attachment hardware is in good condition and designed to support at least 10 times the fixture's weight.
- Structure can support at least 10 times the weight of all installed fixtures.
- Work area below is blocked from public access and make sure the work is performed from a stable platform.

When using more than one TLD-612A to create an LED curtain, ensure that the TLD-612As are installed so that the correct pixel pitch can be achieved.

To rig a TLD-612A:

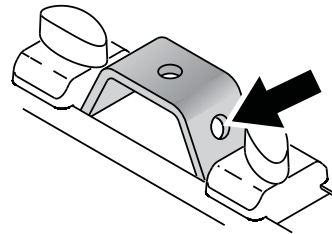
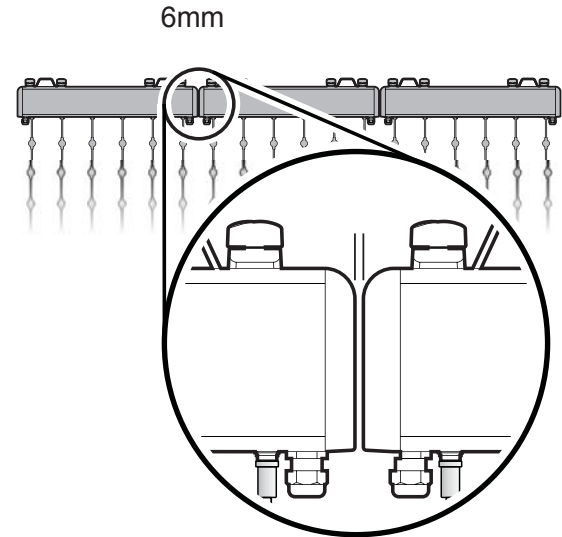
1. Loosen the mounting brackets and slide the brackets to the desired length (no less than 160 mm and no more than 500 mm apart)
2. Turn the thumb screws fully clockwise until the bracket is locked in place.
3. When using more than one TLD-612A to form a wider LED curtain,



the fixtures need to be spaced 6 mm apart to obtain the correct 12 cm pixel pitch.

4. Connect and arrange the power and data cables.
5. Fasten the TLD-612A securely to a fixed surface or structure, ensuring that the supporting structure and/or hardware used can hold at least 10 times the weight of all the devices they support, as well as all installed accessories.
6. If suspended from a rigging structure, fasten the TLD-612A to a rigging clamp with an M10 bolt using the top hole in the mounting bracket.
7. Complete the rigging procedure by securing the TLD-612A with a safety wire using the hole in the mounting bracket.

This safety wire must be approved by an official body such as TÜV as a safety attachment for the weight that it supports. The safety wire must be capable of supporting a static suspended load that is ten times the weight of the fixture.



Connecting AC power

The TLD-612A can operate on any 100–240 V, 50/60 Hz AC mains power supply.

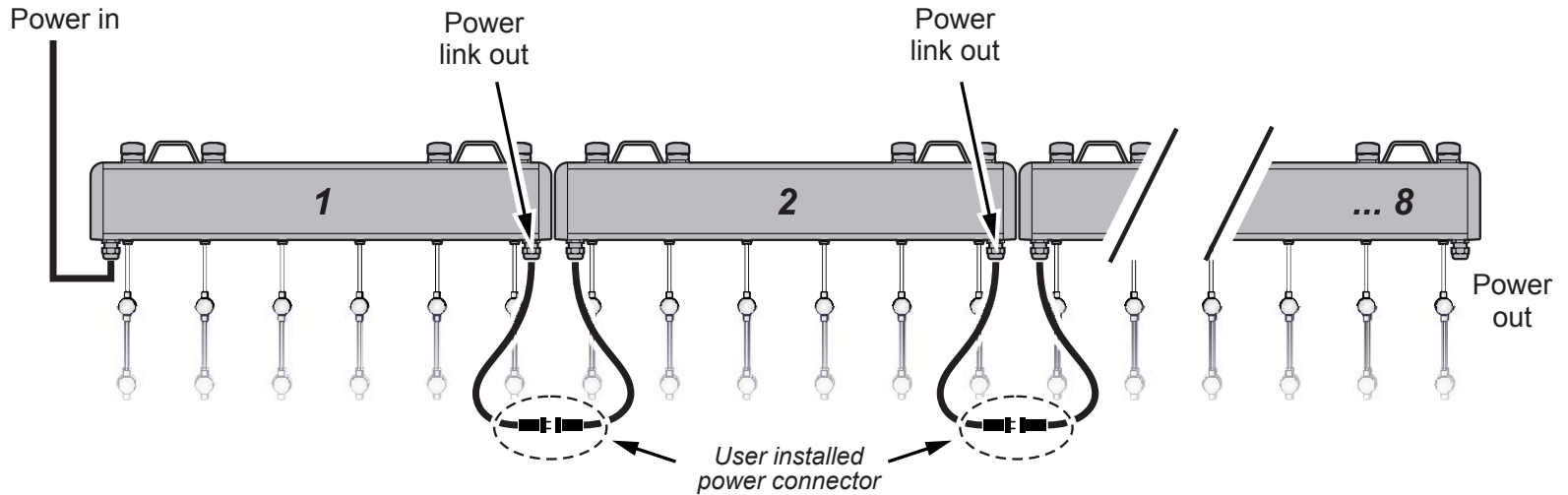
Pre-mounted CEE connectors are for protection only and should be replaced with a connector that meets local standards. For temporary installations, install a grounding-type (earthed) industrial 3-pronged type B plug that complies with IEC 60309 or a comparable national standard and is rated 16 A minimum, and use corresponding power outlet sockets. Follow the connector manufacturer's instructions and all locally applicable laws and electrical safety codes. For permanent installations, have a qualified electrician hard-wire the TLD-612A to the AC mains supply

The device must be grounded/earthed and be able to be isolated from AC power. The AC power supply must incorporate a fuse or circuit breaker for fault protection.

Daisy-chain power to other TLD-612As

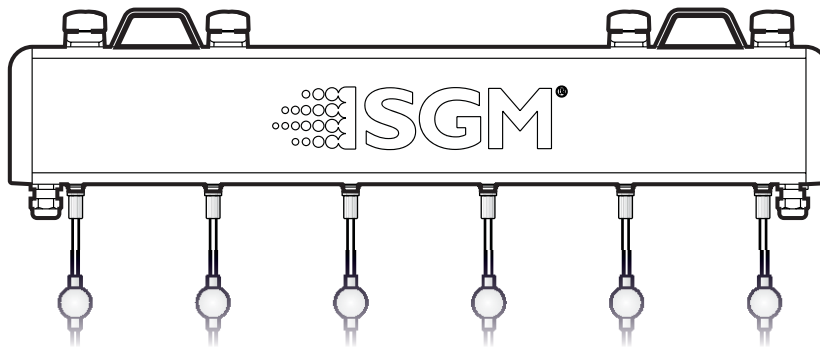
When daisy-chaining TLD-612As using the cables that are pre-installed in the TLD-612A:

- @ 230VAC, 13A, up to 8 TLD-612As can be daisy-chained.
- @ 115VAC, 13A, up to 4 TLD-612As can be daisy-chained.



Connecting LED pixels

The TLD-612A can drive six SGM LT-100s, six SGM LT-200 or six strings of SGM LED Ball pixel luminaries (each string can contain up to 56 led balls), or any combination of the three product types. These can be attached in any arrangement to the six output connectors on the TLD-612A. The six LED pixel connectors on the TLD-612A are not designed to bear loads. Always ensure that any attached LT-100s, LT-200s and LED Balls are supported by other means than attachment to an TLD-612A connector.



Configuring the device using an Android telephone via RFID

As an alternative to connecting the device to power and using the *SGM Artnet Configurator*, one or more TLD-612A devices can also be configured wirelessly, via RFID, using the SGM Tool app (available from the Google Play Store) installed on an Android smart phone that has NFC support (ISO 15693 and ISO 18000-3 mode 1 compatible, operating on 13.56 MHz \pm 7k Hz carrier frequency).

Service

There are no user-serviceable components inside the device. Do not open the TLD-612A, as doing so is likely to damage its ingress protection. Consult your SGM dealer if the device operates abnormally, is defective or otherwise in need of service or repair.

Upgrading the firmware

We recommend that you to keep your device's firmware current. Visit <http://www.sgmlight.com> to obtain the most up-to-date firmware. To perform firmware updates, you need an SGM USB uploader cable (P/N 83062011), a Windows-based personal computer and the SGM Artnet Configurator (available from <http://www.sgmlight.com>).

Specifications

PHYSICAL

Length x width x height 715 x 80 x 182 mm (28.2 x 3.2 x 7.2 in.)
Weight4 kg (8.8 lbs)

CONSTRUCTION

Housing Aluminum
Finish Black electrostatic powder coating

INSTALLATION

Orientation Any
Minimum distance to combustible materials 50 mm (2 in.)
Distance between adjacent TLD-612As (if pitch is to be maintained)6 mm

AMBIENT OPERATING CONDITIONS

Maximum ambient temperature (T_a) 40° C (104° F)
Minimum ambient temperature (T_a) -10° C (14° F)
Operating humidity 100%
IP rating IP 65

PROGRAMMING AND CONTROL

Configurationvia PC running SGM Artnet Configurator
Control of attached LED pixels via Artnet with three DMX channels per LED pixel
Software upgrade via PC running SGM Artnet Configurator
Wireless interface via RFID using an Android telephone that has NFC support and SGM Tools app
Firmware updatesvia SGM USB uploader cable (P/N 83062011)

CONNECTIONS

Artnet data input/output 2 x IP67-rated Avnet Abacus RJ-45 female sockets (P/N: BENRJS-5EPFFJ-SC7002)
Pixel luminaire connections 6 x RJ765 connectors, compatible with SGM LT-100, LT-200 and LED Balls

ELECTRICAL

AC power 100–240 V, 50/60 Hz
Maximum total power consumption (full load) 320 W
Standby power (with all outputs off) 55 W
Maximum standby power (with no load) 5 W

FUSES

Main fuses (not user-replaceable) 2 x T12A
Power supply fuses (not user-replaceable) 2 x T3.15A

TYPICAL POWER AND CURRENT

230 V, 50 Hz	310 W, 1.36 A, 0.99 PF
240 V, 50 Hz	310 W, 1.30 A, 0.99 PF

APPROVALS

Safety	EN 60950-1
EMC.....	EN 55103-1 , EN 55103-2

Specifications subject to change without notice

USER'S NOTES



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