

STR1 Roadway Lantern
ABT 15ATEX4111
Installation, Operation and Maintenance Instructions

Description

The Abtech STR1 range of roadway lanterns are manufactured in Aluminium with a toughened glass window and silicone rubber gaskets providing sealing. The type of protection is Ex ec, Increased Safety.

Application

The luminaire is suitable for use in a Zone 2 area, gas and dust hazards, and reference should be made to the rating table below in respect of T rating and ambient temperature considerations. The luminaire is designed for use in areas not subject to levels of vibration or shock above those considered normal for fixed installations. Care should be taken, not to expose the gasket(s) to high concentrations of hydrocarbon vapours.

‘This equipment uses an external non-metallic coating. To avoid the build-up of an electrostatic charge clean only with a damp cloth.’

Refer to apparatus certificates (supplied with luminaire and available at www.abtech.eu) for details of certification, coding, conditions for safe use.

Refer to apparatus label for warnings

Luminaire Ratings

Product Reference	Colour Temperature (K)	Ambient Temp	Power (W)	Temp Class and Surface Temp		Weight (kg)
LX2STR1120SH	4000	-50°C to +55°C	120	T4	T135°C	11

Operating Parameters

Product Reference	Lamp Power	LED Current	Input Voltage	Input Frequency	Power factor Correction
LX2STR1120SH	120W	0.7A	90 to 305 Vac	50Hz to 60Hz	>0.95

Installation

1. General

The STR1 Roadway lantern is certified to the ATEX standard, certificate number: ABT 15ATEX4111. This certificate should be used in conjunction with the installation, operation and maintenance of the product.

Installation and electrical connections must be carried out in accordance with EN/IEC60079-14 and EN/IEC60079-15 as applicable and local or national standards and/or codes of practice as applicable.

The STR1 roadway lantern is class 1 apparatus and must be suitably earthed. It is the installer /users responsibility to ensure that the luminaire and the relevant ratings are suitable for the application, zone and environment and ensure the materials as stated will not be attacked by existing foreseeable aggressive substances.

It should be noted that this equipment will be provided with an external non-metallic coating (paint finish), to avoid the build-up of an electrostatic charge, clean only with a damp cloth.

2. Supply Voltages

For voltage refer to rating plate. The supply voltage must be within the Vac range specified in the operational parameters.

Note: it is important that the frequency of the supply matches the frequency stated on the driver rating label.

Supply voltage variation must not exceed $\pm 6\%$ and the luminaire should not be operated continuously beyond this limit. In any case the voltage variation must NEVER exceed $\pm 10\%$ as this will invalidate the certification and could lead to the product being unsafe. If in doubt, advice should be sought from Abtech technical department.

3. Mounting Luminaire

The luminaire should be pole mounted which is not prone to excessive levels of vibration or shock. No objects should be placed within 1m directly in front of the glass window. The luminaire should be fixed in position in accordance with lighting design parameters and secured using appropriate fixings at an angle between 0° to 15° .

4. Supply Cable

The STR1 range of roadway lanterns is suitable for use with cable with insulation rated for a minimum temperature of 80°C . Terminals are suitable for looping up to 4mm^2 conductors. Cable type must be effectively filled to ensure that the non-sparking properties of the luminaire are maintained.

Access to the terminals is via the glass cover which can be removed by undoing the eight cover screws. All electrical connections and components should be inspected for security of wiring and cracks in insulation and stray conductor strands. The conductors should be fitted into the terminal block ensuring that conductors are not stretched or stressed. If removable threadlock adhesive has been applied to the terminal screws, this should be reapplied prior to tightening the terminal screws after adjustment. When terminating the conductor into the terminal block this must be carried out in an ambient temperature of between -10°C and 80°C , also it is vital that no more than 1mm of bare conductor protrudes from the terminal throat. The mains terminal block does not require threadlock adhesive to be applied to the Cable glands should be fitted with an appropriate sealing washer to the inside of the luminaire. The sealing washer must maintain the Restricted breathing properties of the luminaire and meet the minimum IP rating as noted on the apparatus label.

Standard cable entry is a threaded M20x1.5. Care should be taken with threaded entries to ensure no swarf or debris enters any of the electrical components. All swarf and debris must be removed from the interior of the luminaire.

6. LED Fitting and Replacement

The STR1 Roadway lantern range with regards to the LED array is a maintainable unit. In the event of a failure, the failure must be reported to Abtech as per the warranty agreement. Spares/ replacements are available, see product datasheet.

Maintenance

1. Visual Inspection

Visually inspect the luminaire for signs of water ingress or loose screws, Check operation of LED by powering up the unit, leave the unit powered for at least an hour and re-inspect for any failures.

2. Internal; Inspection

Remove the polycarbonate cover and check state of gasket for tears or dirt. Replace as necessary (see below) Check tightness of cable gland and tighten as necessary. Check tightness of all terminal screws (if applicable). Check for any signs of water ingress and remedy as necessary. Check condition of all wiring and electrical components for signs of arcing or overheating. Refer to Abtech technical department for advice if any components are in doubt. Refit glass cover and tighten screws.

3. Fault Finding

Any fault finding must be carried out with the luminaire de energised and without a flammable atmosphere present.

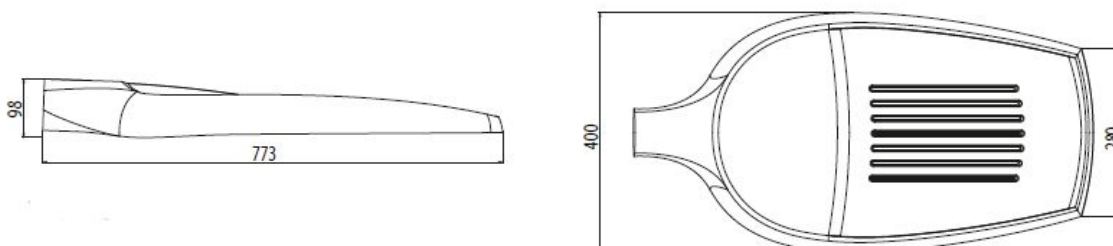
Generally, LED drivers are very reliable and faults are generally the result of loose cabling. If after checking the wiring the fault is still present, please refer to Abtech technical department for assistance.

4. Gasket Replacement

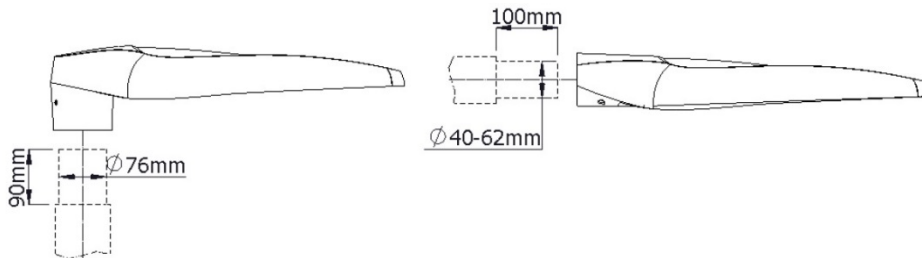
The unit gasket is one-piece silicone rubber and can only be obtained from Abtech. The old gasket should be removed and any traces of sealant cleaned off. The area where the gasket is situated should be clean and free from grease. The gasket should then be fitted to the enclosure. The glass cover should then be re-fitted and the eight glass screws tightened evenly to ensure constant and even compression of the gasket.

Luminaire Dimensions

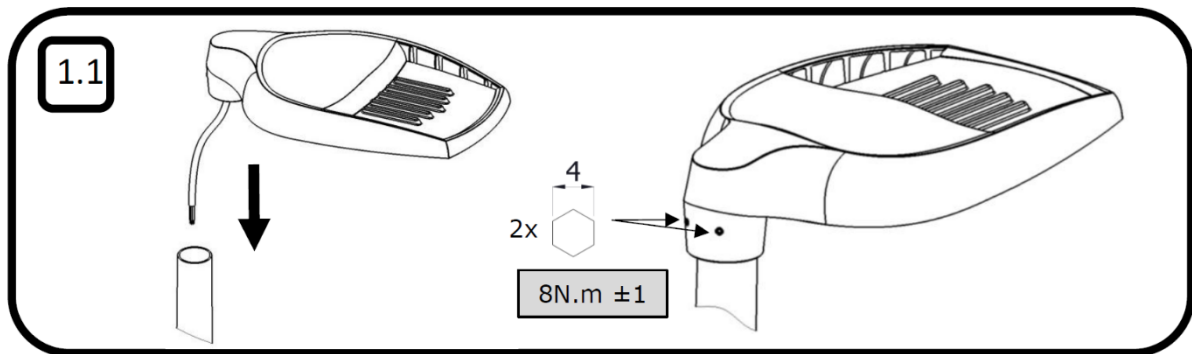
1. Luminaire external dimensions

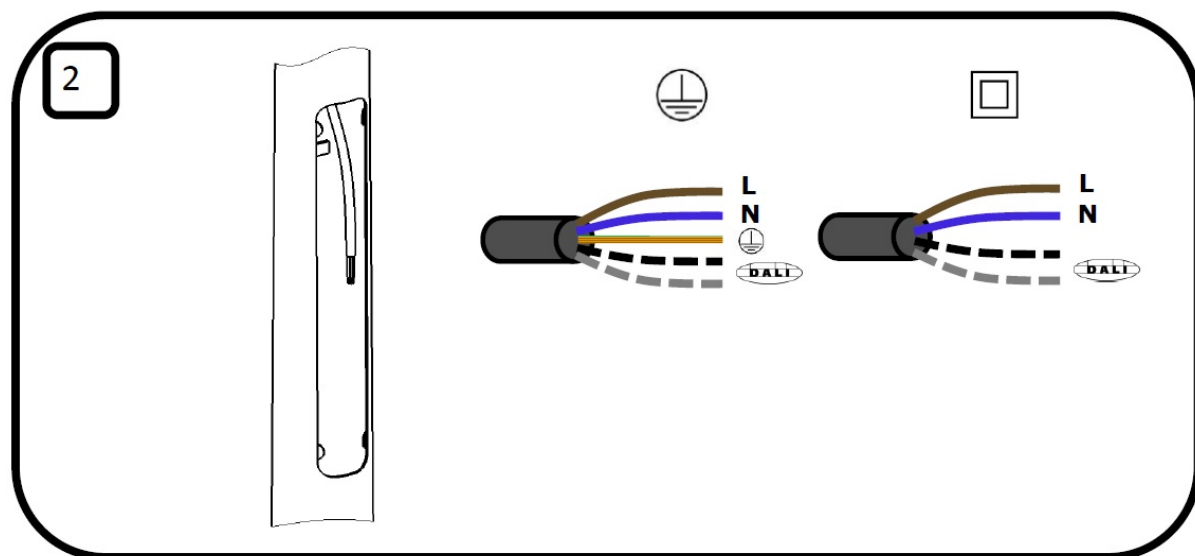
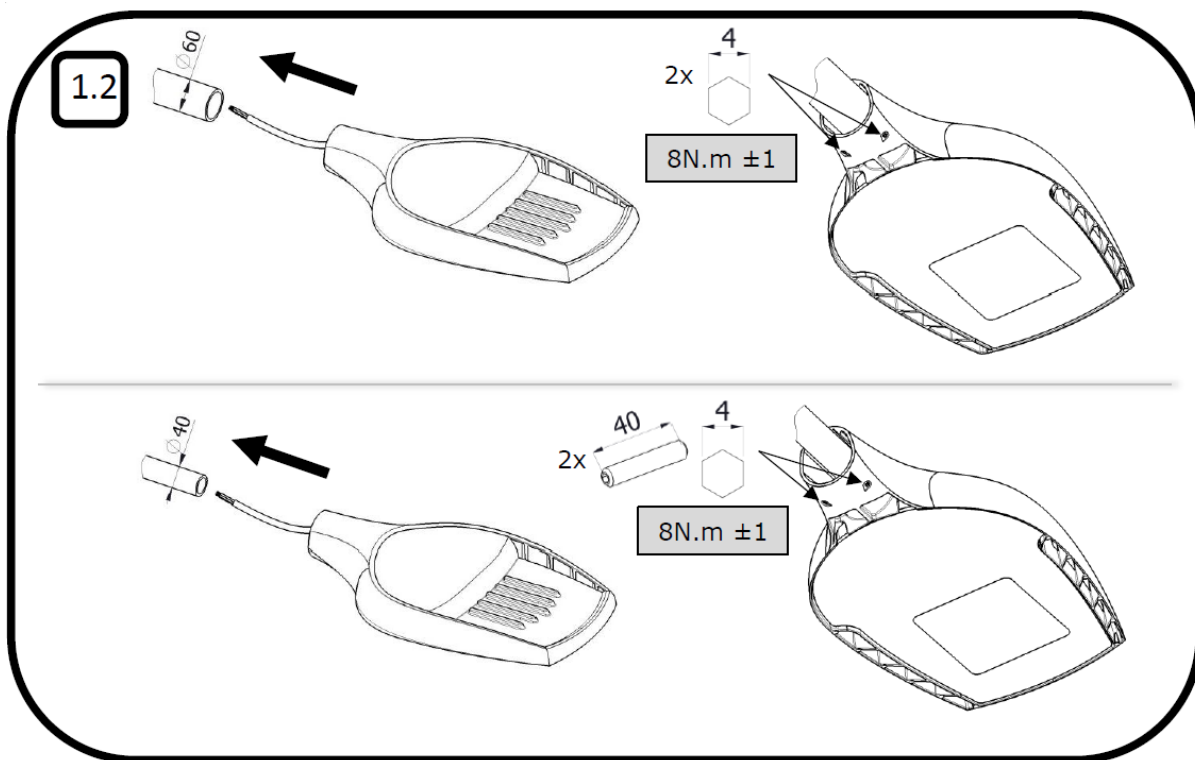


2. Mounting options



3. Installation





Disposal Information

Electrical components contain synthetic resins, plastics and other inorganic compounds which may produce noxious fumes if incinerated.

Within the EC, disposal of components must comply with WEEE directive 2002/96/EC. Any local or national regulations with regard to waste disposal must also be complied with.

Lamps must not be incinerated. Lamps should be disposed of in accordance with local or national