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Drivelite24

Installation and Operating Instructions

OutdoorLEDs

the brighter choice

Outdoor LEDs' Drivelite24 external lighting system offers practical and robust illumination for your driveway. With quick and easy plug and play installation, the potential to run up to 30 light units from a single power supply. Drivelite24 is a fantastic addition to any driveway, instantly improving the aesthetics of the area and providing added security by giving a clear view of the surrounding driveway, all the way to your front door.

The Drivelite24 is a very practical and robust floor-mounted lighting system, offering a discrete and stylish source of light from a durable and weather proof system that consumes very little power and can be fitted without the need for electrical qualifications, thanks to the plug and play system. The light system is compatible with specific ranges of Marshalls' stone including; Fairstone Setts, Drivesett Duo, Drivesett Tegula Original, and Drivesett Natrale .

Drivelite24 Starter Kit Contents

- 5x In-Line Units (two leads).
- 1x End Unit (single lead)
- 6x Plastic cable laying tray
- 5x 2 metre cables with push fit connector
- 1x 4 metre cable with push fit connector
- 1x 28VDC Power Supply Unit (PSU)



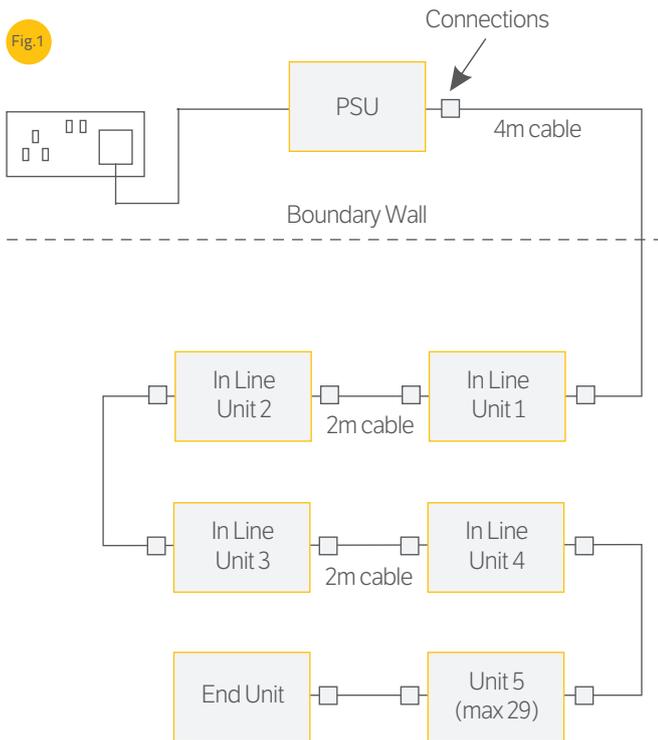
Safety Note: The Drivelites, interconnecting cables and power supply are all designed to be installed by unqualified personnel. However, the mains power supply socket must be installed by a qualified electrician in a way that complies with the current IET wiring regulations (BS 7671). If you are in any doubt about your ability (or qualifications) to do this work we recommend that you use a qualified electrician to install the product.

Planning Your Installation

The system is designed for domestic installations where there is no vehicular overrun. The lighting units are robust under normal load bearing conditions, but point loading, such as chair legs, should be avoided.

The Drivelite24 lighting units must be installed with the PSU at one end and following in a daisy chain formation with the end unit (single lead) at the other end (see Fig.1).

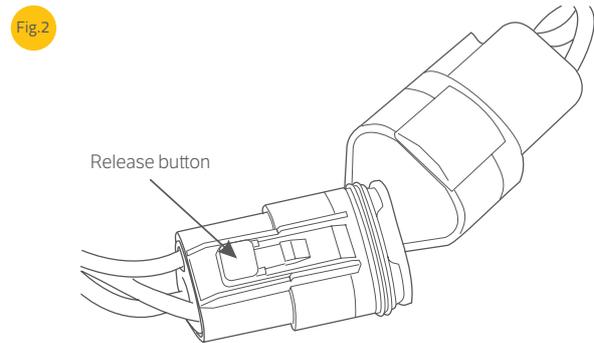
The PSU, its cables and the mains supply socket are not IP rated and must all be installed in locations where they are protected from the weather. This means that they must either be installed within a building or in a weatherproof enclosure.



Drivelite24 Connecting Cables

The Drivelite24 system is designed to be easy to install and the key to this are the low voltage connecting cables that are used to join the lighting units together. These are available in 2M and 4M lengths, and are fitted with quick-release plug-in connectors.

To join the connectors simply push them together until they latch. To separate the connectors press the release button and pull them apart.



Notes:

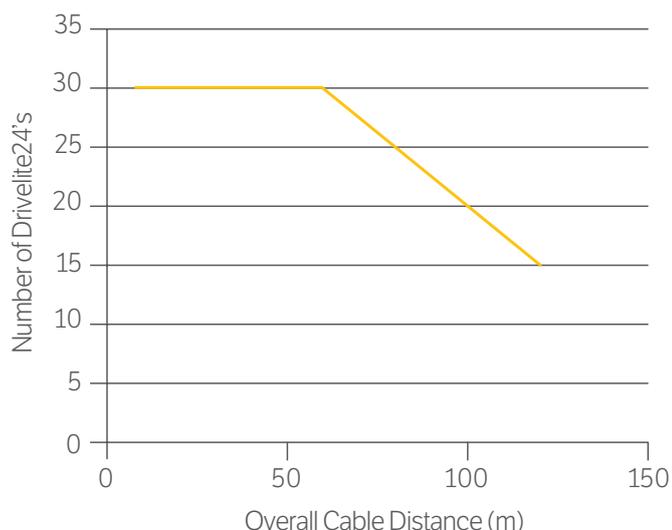
1. Before making connections ensure no moisture is trapped within the connectors and keep them free from sand and dirt.
2. Under no circumstances are the cables to be cut.
3. Having the wire insulation exposed where the cable joins the connector is a standard feature of the high specification connectors used in this product.

Pre-installation Check

It is important to carry out a check to ensure that the system is working correctly before you install any of the components.

1. Unpack the kit and check the contents. Report any shortages to your supplier immediately (check the packaging to ensure that connecting cables are not concealed within before discarding it).
2. Test the system by connecting all the items together and connect the PSU to a power source.
3. Check that all of the lighting units are illuminated. If any lighting units fail to light check the fault finding section at the end of this manual. If you are unable to solve the problem please contact Outdoor LEDs on **01229 484 633** for help.

Illuminated Units vs Cable Distance



Extending Your System

The Drivelite24 Starter kit provides a basic system of six lighting units. It is possible to extend the system by adding additional items so that a maximum of 30 Drivelite lighting units are driven by a single PSU. This can be done using a variety of cable configurations. The only limitation is that, to achieve full illumination from each unit, the total length of the system must not be greater than 60 Metres.

A longer cable length (up to approximately 120 Metres) can be used by reducing the number of lighting units in the chain. The graph in Figure 2 shows the relationship between the cable length and the number of units that can be used.

The following additional components are available to extend your Drivelite24 system (contact Outdoor LEDs on **01229 484 633** for details):

- In-Line Units
- 2m Cable
- 4m Cable

Fig.3



Cable and PSU Installation

The cables and lighting units must be installed in a bed of sand which is at least 50mm deep. The plastic cable trays must be fitted underneath the lighting units at the correct height so that the surface of the unit is flush with the level of paving.

Use the low voltage cable to accurately position the lighting unit locations as follows:

1. Install the PSU in its position close to the mains supply socket and connect the first section of low voltage cable to the PSU.
2. Connect all of the low voltage cables together so that they form a continuous length, ensuring that the joints of the connections are fully latched.
3. Fit the end unit to the end of the cable.
4. Place the jointed cable in position along the cable run (fig.3).
5. Measure out the desired location of the lights, loop the cable at the joint, and place the looped joint where the lighting unit is to be installed (fig.4).
6. Loop any additional cable and place it along the cable run where it can be buried (under no circumstances should the cable be cut to shorten it).
7. Cover the cables with compacted bedding sand, making sure there is a depth of at least 50mm at the lighting unit locations.
8. Carefully prise the cable joints out of the bedding sand to provide an indication of the lighting unit location (fig.5).
9. If necessary, complete the laying of the surrounding paving slabs, ensuring that sufficient space has been left for the lighting unit to be installed (fig.6), (the lighting units must not be cut or filed in an attempt to make them fit).

Fig.4



Fig.5



Fig.6

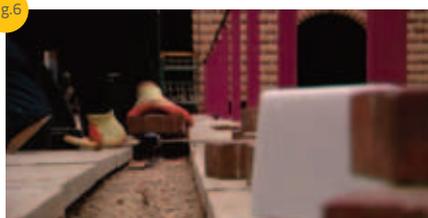


Fig.7



Fig.8



Fig.9



Fig.10



Lighting Unit Installation

Start by fitting the end unit:

1. Insert the cable laying tray in position at the lighting unit location (fig.7).
2. Set the height of the tray so that the top of the lighting unit will be slightly below the surface of the paving slabs. Leaving the units proud of the surface will leave them vulnerable to damage (and will invalidate the warranty).
3. Tuck the cabling into the trough of the tray and fit the lighting unit into position on top of the tray (fig.8 &9).
4. Ensure that the surface of the unit is slightly below the level of the surrounding unit paving. Do not attempt to cut or file the lighting unit. Do not use impact force, such as a hammer, or mallet, to fit the light units.

Continue by installing all the remaining lighting units as follows:

1. Remove all sand and moisture from the low voltage connector and then disconnect it.
2. Connect both cables to the lighting unit. Ensure that the connections are fully inserted and locked.

Note. Sand or dirt in the connector could cause the seals to leak and may lead to early failure of the system.

3. Insert the cable laying tray at the lighting unit location.
4. Tuck the cabling into the trough of the tray (fig.8).
5. Fit the lighting unit into position (fig.9).
6. Repeat this procedure until lighting units have been installed (fig.10).
7. Spread jointing sand over the entire area of the drive/patio or path and compact in the normal way.
8. Connect the mains supply and switch on to test that the system is fully operational.

WARNING: Do not run a vibrating compacting plate over the Drivelite24 as this will damage the surface and may cause the units to fail.

For more help with installation, please visit our website: www.outdoorleds.co.uk where you can watch a video of the installation of a Drivelite24 starter kit.

Operating Your Drivelite24 System

The units are designed to have uniform white light emissions, emanating from the top surface. The intensity is suitable for decorative and security purposes in low light condition, but the illumination may not be visible in bright sunlight.

Disposal of Packaging

Please dispose of all packaging responsibly, recycling where possible.

Cleaning and Maintenance

Regular cleaning will ensure the long term life and performance of your system. The units should be cleaned by first removing any excess contamination with a soft, non-abrasive cloth, followed by cleaning with warm water and a mild detergent, again using a soft, non-abrasive cloth to wipe the top surface.

Do not use a pressure washer on these units.

System Diagnostics and FAQ's

Q: Why aren't the lights coming on?

1. In very bright sunlight the units may not appear to be lit. Check for illumination in darker conditions.
2. Check that the green power LED is lit up on the power supply. If there is no LED lit on the power supply, check the power supply lead is fitted correctly and that the mains supply is switched on.

Q: Why are some units lit, but not all?

1. Check that all electrical connections are clean and secure.
2. The lighting unit may be faulty – contact Outdoor LEDs for advice.

Q: I have damaged the cable during installation.

Any breaks in the cable can result in water ingress. Replace the cable section.

For further assistance, please contact Outdoor LEDs on **01229 484 633**.

Guarantee

This product is guaranteed in the UK for a period of one year from the date of purchase against defective materials or faulty workmanship. This guarantee is invalid in the case of improper use, installation, tampering, and removal of the Q/C date label, installation in an improper working environment or installation not according to the current edition of the IET Wiring Regulations (BS7671). Should this product fail during the guarantee period, it will be replaced free of charge, subject to correct installation and return of the faulty unit. Outdoor LEDs accept no responsibility for any installation cost associated with the replacement of this product. Your statutory rights are not affected.

Outdoor LEDs reserve the right to alter specifications without prior notice.

Disposal

The crossed out wheeled bin symbol on your product, literature or packaging reminds you that in the European Union all electronic products must be taken to a separate collection at the end of their working life.

DO NOT DISPOSE IN UNSORTED MUNICIPAL WASTE



Technical Specification

Weight: One lighting unit has a weight of 330g .

Dimensions: One lighting unit, 160mm x 110mm x 50mm

Operating Temperature: -20°C to +40°C

Scratch Resistance: Some surface scuffing may occur during the lifetime of the product. This is normal and will not affect the performance of the units.

Chemical Attack: The unit will offer short-term resistance to Petrol, Diesel, Brake Fluid, Antifreeze. If the units are exposed to any chemicals, we recommend that they should be thoroughly cleaned at the earliest opportunity (see Cleaning and Maintenance).

Pressure Washing: The unit is not designed to be pressure washed.

Low Voltage Directive: The system is designed to meet and exceed the requirements of the LVD directive.

Power Supply Specification

Input Voltage: Universal Mains (90Vac to 250Vac at 50/60Hz)

Output Voltage: 28Vdc Maximum Current: 1.5A

Limitations of liability

Marl has taken care to ensure that this product is safe and fit for purpose. You should ensure at all times that you follow the installation and after care instructions detailed in this manual. Nothing in this manual limits or excludes Marl's liability for (i) death or personal injury caused by negligence, (ii) fraudulent misrepresentation, or (iii) any other liability which cannot be limited or excluded by applicable law.

Subject to the above, Marl will not (to the fullest extent permitted by law) be liable, whether in contract, in tort (including, without limitation, negligence), or otherwise arising out of or in connection with these terms and in particular where any injury or loss has been sustained through ignorance of warnings, misuse of goods (including use other than in accordance with the manual, or unauthorised modifications) continued use after a danger became apparent and fair wear and tear, for any: economic losses (including, without limitation, loss of revenues, data, profits, contracts, business or anticipated savings); or loss of goodwill or reputation; or special or indirect losses suffered or incurred by you arising out of or in connection with the installation or use of this product.

This does not affect your statutory rights as a consumer.

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