

Guarantee:

On all **Top Light** products we give you **two years warranty**.
We thank you for choosing one of **Top Light** high-quality products.
All our products are produced and packed with the utmost care and precision.

Thus we offer a very high measure of quality to you.

In the unlikely event that you should have a complaint, we ask to refer this in the first instance to your specialist dealer.

We are certain our service will convince you!

Non binding pointers/references:

The electrical installation works should be undertaken by a qualified electrical company!

- For each stone you require:

Art. No.: 13-01105 (heat shrink sleeve, soldering link, seal)

Art. No.: 13-01101 or 13-01102 (Transformer box IP-55 or IP-68)

Art. No.: 13-01005/-01010/-01025/-01050/-01100 (earth rubber cables)

- Stones are to be bedded in sand, and not directly into grit/earth

- Jolting (on own risk!) cover must be only with sand.

- Mains cable according to VOB/VDE directive: private installation to be placed underneath the earth's surface 20cm: with public installations 80cm below the surface.

Connection to the supplying main supply:

IP 55 (water resistant) aboveground:

Distributor box art. No.: 13-01101 for 8 stones inclusive transformer.

IP 68 (waterproof) upper/underground:

Distributor box art. No.: 13-01102 for 8 stones inclusive transformer and filler resin.

Accessories for Light Stone:

Art. No.	Description	Execution	Size
13-01005	5m earth rubber cable	2-pole for low volt, black	5m, 2x0,75mm ²
13-01010	10m earth rubber cable	2-pole for low volt, black	10m, 2x0,75mm ²
13-01025	25m earth rubber cable	2-pole for low volt, black	25m, 2x0,75mm ²
13-01050	50m earth rubber cable	2-pole for low volt, black	50m, 2x0,75mm ²
13-01100	100m earth rubber cable	2-pole for low volt, black	100m, 2x0,75mm ²
13-01101	Transformer box IP-55	for 8 Lightstones inclusive transformer	85x85x40mm
13-01102	Transformer box IP68-	for 8 Lightstones inclusive transformer and resin	85x85x40mm
13-01105	connecting heat shrink sleeve	with 2 pressure links	10cm

Important:

You achieve the necessary enclosure IP 68, for the transfer underground only by use of our connecting and seal systems, which were developed particularly for this task!



Top
Light

Top-Light e.K.
Industriezentrum 100
32139 Spenge



+49 (0)5225- 86312-0



+49 (0)5225- 86312-10



www.top-light.de

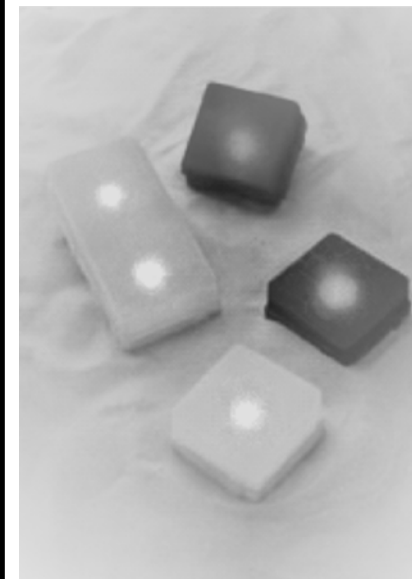


brief@top-light.de

Designed by
R Z
Designed by
R Z
Designed by
R Z
Rolf Ziel



Top
Light



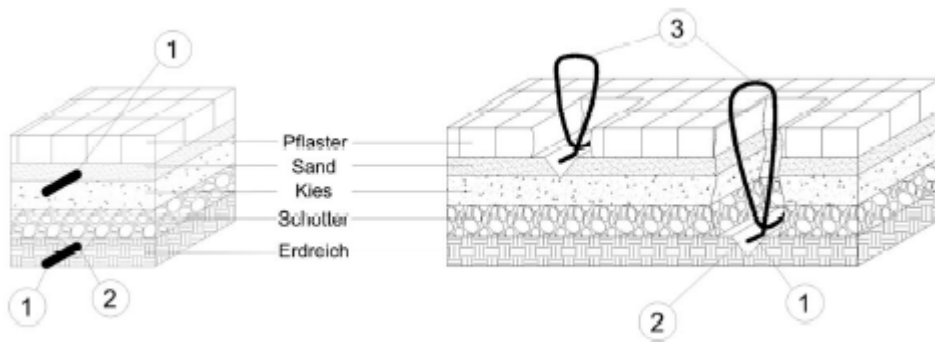
Light
Stone

The way to
the stars
leads over
lighting
stones ...

Montageanleitung

Instructions Light-Stone installation:

- A) The maximum length between the transformer and the last stone must be no greater than 40mtrs.
- B) The low-voltage ground rubber cables can be laid in either (1) into the sand-layer or (2) directly into the soil.



IMPORTANT: If for use in public areas it is recommended to bury the cable 80cm for protection against frost.

- C) It is advisable to first lay the length of ground cable allowing a loop where the light stones are to be positioned. See picture 3.
- D) Cut the loop and connect the **Light-stone**. (see assembly drawings under **Light-Stone** IP68 A-D.)

VERY IMPORTANT: Before final positioning of the **Light-stone**, ensure that all lights are working and that all red cables from the transformer ground cables are connected to the red cables of the **Light-stones** and the black cables from the transformer ground cable are connected to the black cables from the **Light-stones** consistently throughout the cable run. **If consistent polarity of the cable is not ensured throughout, the LED will not light.**

E) Transformer box installations.

IP 55 Surface mounted Transformer box containing a 12V DC transformer / 230V with the primary connection being 230v with the secondary output being 12v.

IP 68 Underground waterproof connection: Transformer box containing a 12V DC / 230V with primary connection being 230v with the secondary being 12v.

After installation, the Transformer box is encapsulated using the enclosed the two part 3M Scotchcast resin No.4. (See instruction details below). When the resin has cured clip the transformer box lid into position.

Resin encapsulation procedure (see picture diagram on resin packet and read instructions below).

1. Remove resin sachets from outer cover.
2. Pull the enclosed sachet apart in the centre to allow the two components to mix.
3. Manipulate the sachet to mix the two components together thoroughly for 30 seconds.
4. Ensure mixture is squeezed out of all corners.
5. Mix for a further 2 minutes in the sachet.
6. Cut corner and pour into transformer box.

WARNING: After pouring and during the curing process the resin compound will become **VERY HOT**, care must be taken not to touch the resin during this process. Curing times vary between 8 and 60 minutes according to the ambient temperatures see packet for details.

To calculate the maximum number of **Light-stones** per transformer:

1 Led corresponds to 0.3 watts
Transformer wattage should be divided by the number of LEDs.
The result is the maximum number per transformer.

Example:

Transformer: 2.6 watts; LED 0.3 watts
 $2.6 \div 0.3 = 8.66$
Rounded down = 8 LED's

LIGHT-STONE IP 68 GROUND CONNECTIONS

Der Original Light Stone

Top[®]
Light

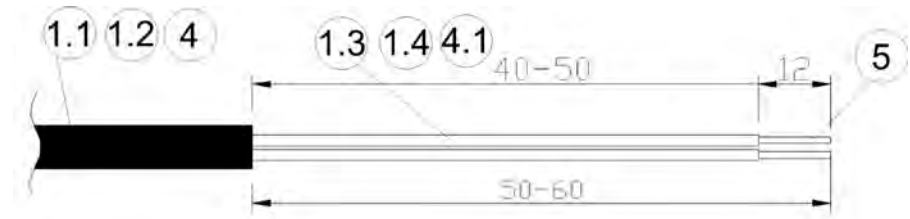
- *Operating life 100 000 hours
(35 years at 8 hours per day)*
 - *passably*
 - *easy to install*
 - *high performance LED technology*
 - *Basalt and paving blocks*
 - *decorative lighting feature in paved areas.*
- The full potential of Light Stone is only limited by your imagination.*

the way of light

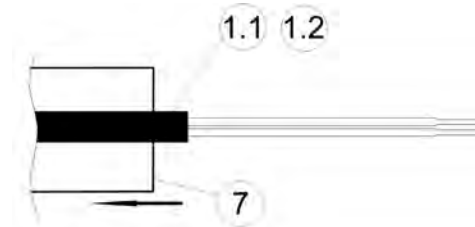


Light-Stone IP 68 Erdverbindung

(A) Strip ground cable to dimensions as shown.



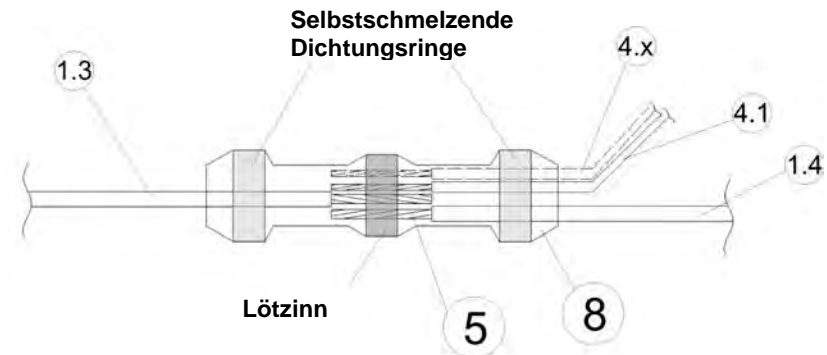
(B) Slip heat-shrink sleeve over ground cable before making connections.



(C) Using heat-shrink connector connect incoming ground cable see picture c. 1,3 for diagram of one side of ground cable e.g. red wire. Ensure the red wire of cable from the **Light-stone** is connected to the other side, along with out going red ground cable to connect to next **Light-stone**.

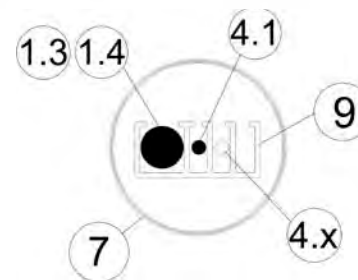
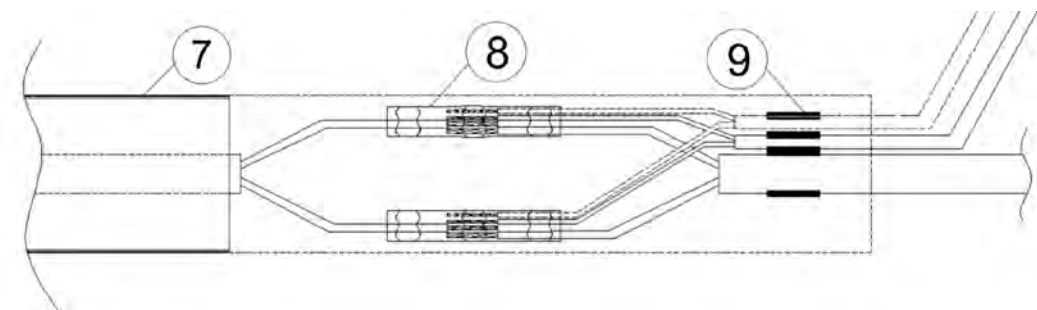
Repeat this process for the black cable.

Heat-seal the two connectors, using a hot air gun operating at 165C°. Ensure that the solder has flowed evenly over the cable ends. (See finished view picture below.)



(D) Prüfen Sie, ob der **Light-Stone** leuchtet!

At this stage check that the lights are operating, and that a good connection has been made. To complete the assembly slip the heat shrink sleeve over the connectors and using the hot air gun shrink the tubing to cover the assembly.



Querschnitt durch Dichtungslamelle mit Leitungen