

## Assembly instructions and functionality

Please read the installation instructions and the safety instructions carefully before the first start-up.

**Attention: Persons with pacemakers must not work with the BS-N 5.0 switching system.**

### Assembly of the components

**Important: For safety reasons, assembly is carried out without the battery inserted!**

The mounting bracket of the unit must be firmly attached to the lamp body.

The "sun sensor" following SON is directly aligned to the sky.  
For example, fastened to the light roof with a bracket (not included in the scope of delivery).

The "flame sensor" (FLS) is aligned directly to the gas mantels  
A minimum distance of approx. 300mm must be maintained.

The ignition cables must be mounted to ground and to the ignition electrode accordingly.  
We recommend twisting both lines against each other.  
Cable assignment on the ignition unit: **A** = Ignition cable | **B** = Ground

The solenoid valve must be mounted accordingly in the lamp.

Please observe the direction of flow (➡ pay attention to the direction of the arrow).

A minimum distance of approx. 300mm to the gas glowing bodies must be maintained.

If the gas pressure is correspondingly high, a suitable pressure reducer must be installed upstream of the micro solenoid valve (not included in the scope of delivery) to provide the correct operating pressure.

After all components of the switching system have been installed, the operating voltage connection cables (red = **plus +** | black = **minus -**) may be connected to the ignition unit.

**The battery must be inserted as the last step** (pay attention to the marking).

### Functionality BS-N 5.0

If the brightness at the SON (sun sensor) decreases and falls below the switching threshold, an ignition process starts for 30 seconds, the solenoid valve opens and releases the gas flow.

If the gas ignites within 30 seconds and the gas glow begins to glow, the ignition is switched off and the valve remains open.

If the brightness increases again at the SON and exceeds the switching threshold, the valve is closed and the gas glow is extinguished.

# Switchgear for Gas Lights BS-N 5.0

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## Security alert:

If the gas does not ignite within the ignition process, the solenoid valve is closed and after a waiting period of one minute another ignition attempt (30 seconds) is started. If the gas ignites within 30 seconds and the gas glowers start glowing, the ignition is switched off and the valve remains open. If, however, the gas does not ignite even during the second ignition attempt, the solenoid valve closes and no further ignition attempts are started.

*Important: Only after the SON has been re-applied with brightness, further ignition attempts can be started (after the SON has darkened again).*

**The ignition system BS-N 5.0 is additionally equipped with safety circuits to prevent the escape of unburned gas and unintentional switching.**

Description of the safety circuits:

If the light of the lamp goes out at night, a reignition attempt will be made in 30 seconds. If the light of the lamp goes out again after the successful re-ignition process, the gas valve is immediately closed and no further ignition attempts are initiated.

*Important: Only after the SON has been re-applied with brightness, further ignition attempts can be started (after the SON has darkened again).*

Sudden short-term illumination of the sun sensor, as is common during a thunderstorm, for example, will not trigger a switching operation.

## Additional function (manual switching)

The switching device BS-N 5.0 is also suitable for non-light-dependent switching operations. For this purpose, the two control lines (red/white) of the sun sensor must be connected to a suitable switch (no button).

If the contact of the switch is opened, the ignition process begins for 20 seconds and the valve releases the gas flow. The ignition time of 20 seconds is performed in any case, and is permanently programmed and is not interrupted by ignition of the gas mantels.



If the contact is closed, the solenoid valve closes and the gas mantels extinguishes.

Opening of the contact again triggers a new start process.

Important: between switch off and repeated switch on, the lamp should cool down for approx. 20 minutes (light off) to ensure a proper starting procedure.

**In order to use this additional function, a short-circuit jumper must be installed in the device in accordance with Appendix 1. The housing may be opened for this purpose.**

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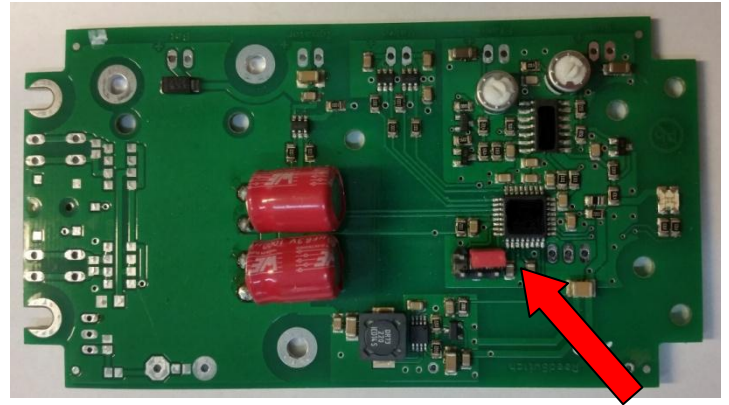
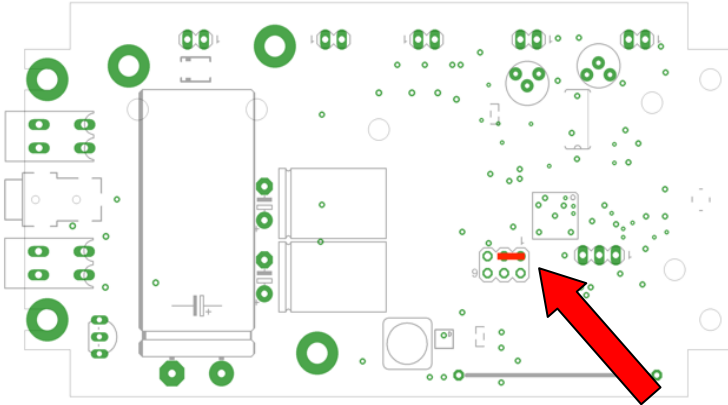


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## Appendix 1: Positioning of the short-circuit jumper, shown in red



After connecting or disconnecting the jumper, the device must be restarted.

### **Attention:**

The BS-N 5.0 switching system has been developed exclusively for the purpose of switching gas lamps which generate light by means of gas mantels.

Gas lamps without gas mantels (flames only) or other gas-powered devices or constructions must not be operated with this device.

**The BS-N 5.0 unit may only be used in luminaires which are located directly in the open air. Use of the unit inside of buildings is strictly prohibited!**

The gas mantels of the lamp must be checked regularly and defective gas mantels must be replaced with a new ones. The battery must be checked once a year and replaced with a new one if necessary.

Any changes or interventions on the device or the electronics, except the connection of a switch instead of the sun sensor and the setting of the jumper, are forbidden and lead to the loss of all warranty claims.

BRAUN Lighting Solutions e.K. is exempt from any compensation payments if damage is caused by tampering with the device or by improper use of the device.

Deliberate defects are excluded.

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