



Booster Keep Separation Module

from the *Digital-Professional-Series!*

BTM-SG-G LDT-Part-No.: 780503

>> finished module in a case <<

Suitable for all digital formats, for all Command Stations and all DigitalBoosters

This module provides a secure electrical separation of booster current circuits via a switch-over track and two sensor-tracks (three isolated track-sections).

The switch-over track section between the two sensor-tracks shall have at least the same length as the longest train on the layout.

This product is not a toy! Not suitable for children under 14 years of age! The kit contains small parts, which should be kept away from children under 3! Improper use will imply danger or injuring due to sharp edges and tips! Please store this instruction carefully.



Introduction / Safety instruction:

You have purchased the **Booster Keep Separation Module BTM-SG** for your model railway layout.

The **BTM-SG** module is a high quality product that is supplied within the *Digital-Professional-Series* of Littfinski DatenTechnik (LDT).

We are wishing you having a good time using this product.

- Please read the following instructions carefully. Warranty will expire due to damages caused by disregarding the operating instructions. **LDT** will also be not liable for any consequential damages caused by improper use or installation.
- We designed our devices for indoor use only.

The **BTM-SG** module comes as finished module and as finished module in a case with a **24 month warranty**.

Connecting the Booster Keep Separation Module BTM-SG to your digital model railway layout:

- **Attention:** Before starting the installation switch off the voltage supply by pushing the stop button or better disconnect the main supply.

The **Booster Keep Separation Module BTM-SG** receives the power supply via the clamp **KL6**. The voltage of **16...18V~** of a model railway transformer (ac output) is acceptable.

Operation mode:

Each **booster supplies current** for an **own rail section**. The rail sections have to be **electrically isolated against each other by separation sections**.

If a **locomotive passes** a **separation section** the **electrical isolation will be temporary cancelled**. At the **3-conductor track** will this be caused by the **sliding contact** of the locomotive. At the **2-conductor track** this will happen if the

locomotive has more than one axle with sliding conductor. During the **electrical bypass** of a **separation section** some **balance current** can **flow over the loc**. Through the whole train if the **train contains conductive couplings** and **sliding conductors** at the **train front and end**.

Related to the **level and duration** of the **balance current** flow it can cause **damage** to the **boosters**, the **locomotives**, the **conductive couplings** and the **rails**.

The **Booster Keep Separation Module BTM-SG** provides a **secure electrical separation** between the **booster current circuits**. For this separation will get the isolated **switch-over track** which is **situated between the two booster current circuits** the supply from **one competent booster** only.

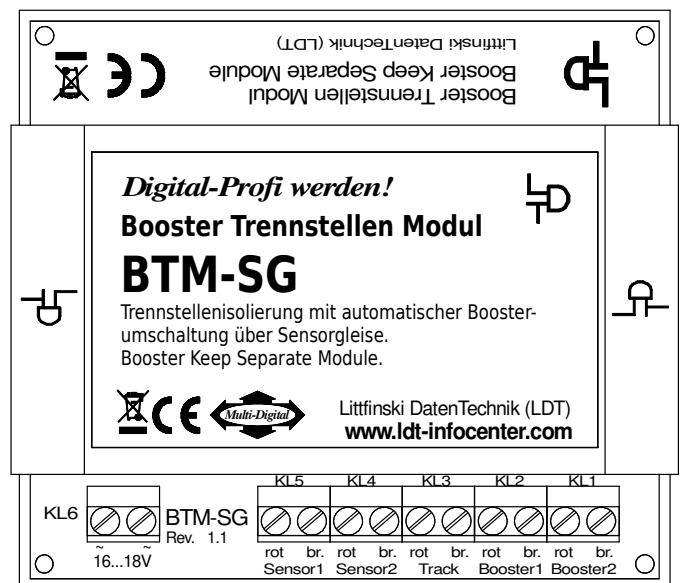
Suitable to the drive direction of the train the **digital current supply** of the **switch-over track** will be **switched automatically** under the travelling train onto the **competent booster**.

The **Booster Keep Separation Module BTM-SG** indicates the travelling direction of the train within **two isolated track sections** (so-called **sensor-tracks**) at a length **5 to 20 cm** (optimal). **Between the sensor tracks** shall the **switch-over track** situated which has to have at least the **length of the longest train** on the layout.

Both rails of the **sensor tracks 1 and 2** and the **switch-over track** have to be **isolated** and connected to the **corresponding marked clamps** of the **Booster Keep Separation Module BTM-SG**. The **digital voltage** of **both boosters** which are competent for the **separation point** shall be connected to the **clamps booster 1 and booster 2**.

The **Booster Keep Separation Module BTM-SG** is able to switch a **digital current** of up to **8 Ampere**.

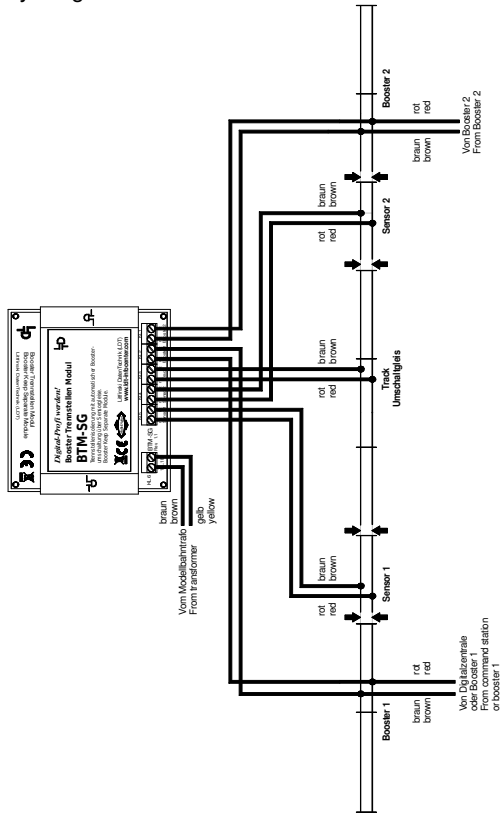
The **Booster Keep Separation Module BTM-SG** is able to work **without any problems** with **boosters of various manufacturers** and with **various electrical characteristics combined** on one model railway layout.



The **sample connections 1 to 4** at the rear side of this instruction shows the **basic wiring** of the **Booster Keep Separation Module BTM-SG**. Colored **sample connections** can be found on our **Web-Site (www.ltd-infocenter.com)** at the section "**Sample Connections**".

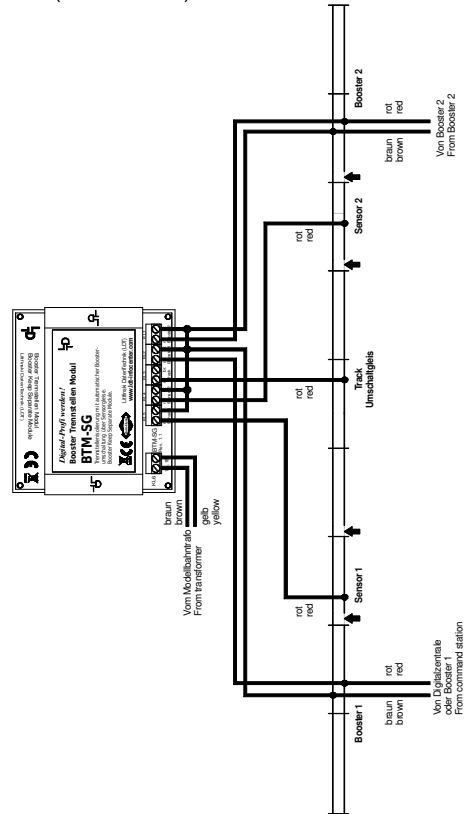
Sample Connection 1: (page_1046)

Booster separation point at a 2-conductor rail system without common layout ground.



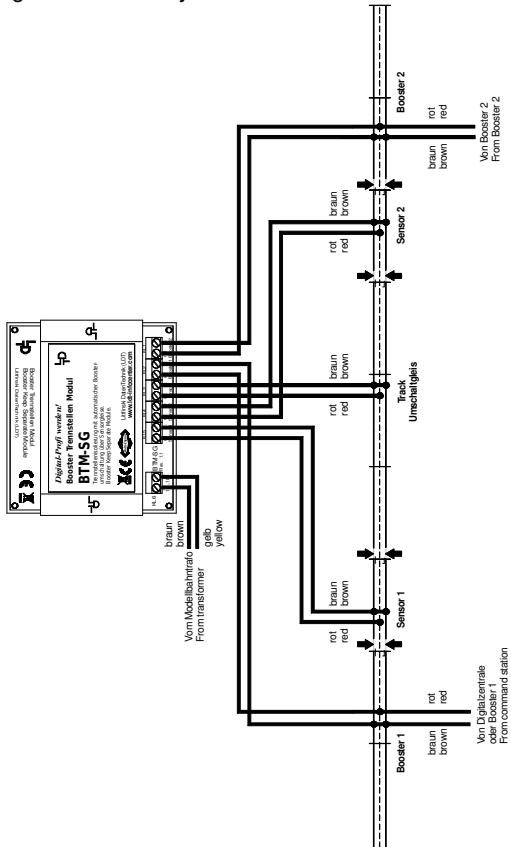
Sample Connection 2: (page_1047)

Booster separation point at a 2-conductor rail system with common layout ground. ("brown" / "J").



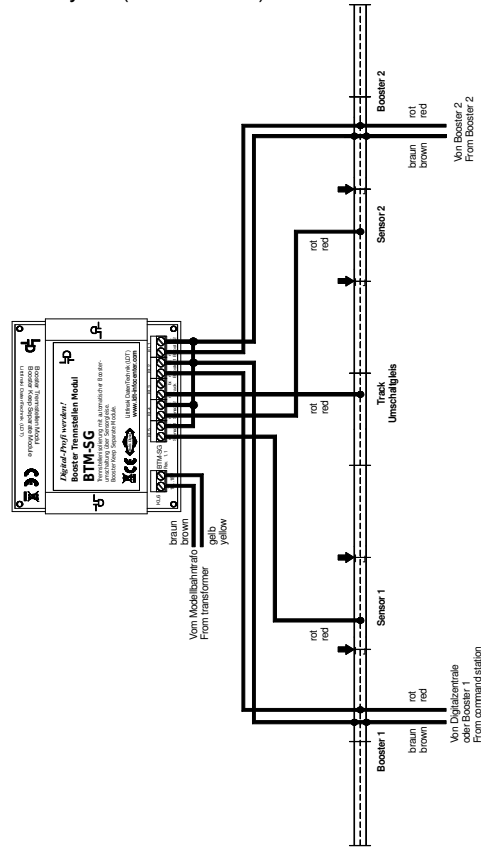
Sample Connection 3: (page_1048)

Booster separation point at a 3-conductor rail system without common ground at the layout.



Sample Connection 4: (page_1049)

Booster separation point at a 3-conductor rail system with common ground at the layout ("brown" / "J").



Colored sample connections can be found on our Web-Site (www.ldt-infocenter.com) at the section "Sample Connections" for the Booster Keep Separation Module BTM-SG under the indicated page-number.

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