

Variant 1 (Art. Nr. 88166): For two railway circuits

Suitable for N gauge and Z gauge.

# Please use the appropriate plug-in power supply unit:

Z gauge Art.Nr. 88171
 N gauge Art.Nr. 88172

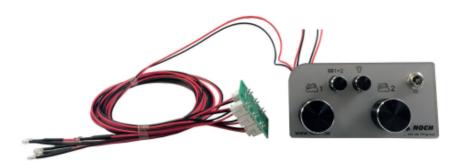
### Shipment:

Control board
2x knob railway circuit 1 and 2
2x button (1x light, 1x interconnection railway circuit 1 and 2)
Cover plate
distribution board light
(4 leds are already connected and the board is
connected to the control board)

The controller has two knobs that can be used to control two independent railway circuits. Both knobs have a central zero position, i.e. the trains can go forwards and backwards to be controlled. These independent circuits can be interconnected via a button. Both circuits can then be controlled via one knob.

The lighting can be switched on or off using another on/off button.

# The controller is ready for installation!



Variant 2 (Art. Nr. 88167): For one railway circuit

Suitable for N gauge and Z gauge.

# Please use the appropriate plug-in power supply unit:

Z gauge Art.Nr. 88171
 N gauge Art.Nr. 88172

### Shipment:

Control board
1x knob railway circuit
1x button ( light )
Cover plate
distribution board light
( 4 leds are already connected and the board is
connected to the control board )

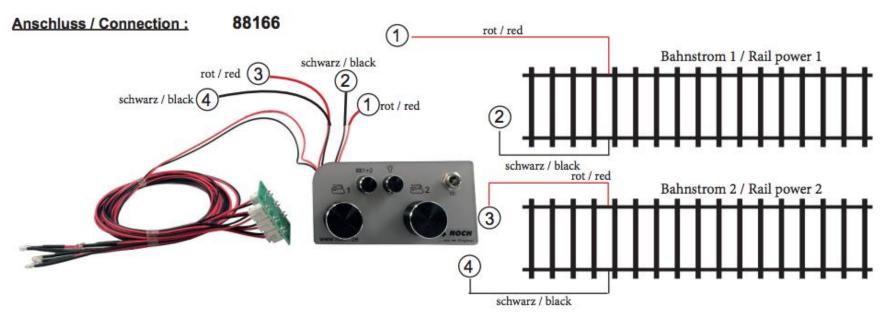
The controller has a knob with which a railway circuit can be controlled. The knob has a center zero position, i.e. the train can be controlled forwards and backwards.

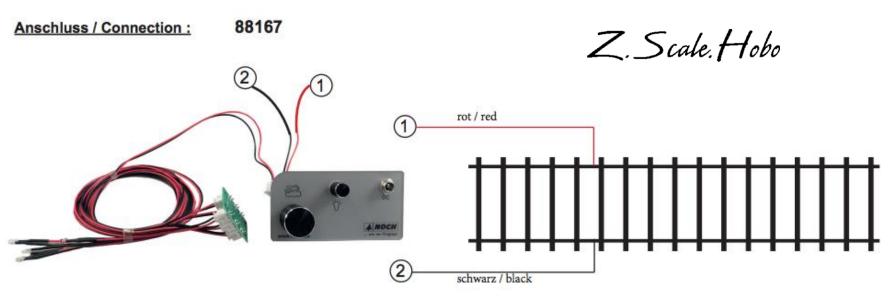
The lighting can be switched on or off via a button.

## The controller is ready for installation!











# 88166

# ® ® Operating

# Switching the Layout On and Off

Connect the enclosed adapter by first connecting it to the power supply port on the briefcase layout and then plugging it into a socket (100 – 240 V input voltage). The layout is now ready for operation! Modelling product, not a toy!

With the black controller on the left, you can control the locomotives' speed and direction of travel on the outer circuit, 1. The controller has a tactile middle position.

With the black controller on the right, you can control the locomotives' speed and direction of travel on the inner circuit, 2. The controller has a tactile middle position.

The inner and outer circuits on your layout are controlled by two controllers on independent electric circuits. To avoid an electrical bridging of the two circuits by the locomotive and a subsequent short circuit when driving from one circuit to the other, the two track circuits can be interconnected. All traction units are then controlled via the controller for the outer circuit, 1. Please be aware that in this mode it is no longer possible to control two locomotives independently on the two track circuits until you return to normal mode.

Press the ### 1+2 button to activate the transition drive! Press it again to switch back to single control.

Note: changing track circuits is also possible if the same potential – the same direction of travel – is applied to both circuits.

The locomotive can change circuits and can be controlled with the respective speed controllers.

Warning: this is also possible when operating two locomotives (accident risk!).

You can switch the city light on or off with the button. If there is a short circuit on the layout, the electronics shut off the corresponding electric circuit. As soon as the short circuit has been removed, the electronics allow the current to flow back to the track. (Short-circuit detection!)



Z. Scale. Hobo



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# Switching the Layout On and Off

Connect the enclosed adapter by first connecting it to the power supply port on the briefcase layout and then plugging it into a socket (100 – 240 V input voltage). The layout is now ready for operation! Modelling product, not a toy!

With the black controller , you can control the locomotives' speed and direction of travel. The controller has a tactile middle position. You can switch the city light on or off with the button. If there is a short circuit on the layout, the electronics shut off the corresponding electric circuit. As soon as the short circuit has been removed, the electronics allow the current to flow back to the track. (Short-circuit detection!)



Z. Scale. Hobo



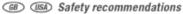
# Sicherheitshinweise

Safety recommendations · Conseils de sécurité · Advertencia de seguridad Veiligheidsinstructies · Indicazioni di sicurezza

# ... wie im Original







## Proper use

This product is a scale modeling article aimed at ambitious modellers, and no toy. It is designed for use on a model installation. It may exclusively be operated together with the accessories recommended by NOCH. Basically, NOCH products are developed and designed for the hobby sector, not for permanent operation. This product is intended for use at average ambient temperature and relative humidity. Please operate the product only indoors, and avoid any atmospheric influences. Any other use will be considered not to be in conformity with the proper use or intended purpose. NOCH GmbH & Co. KG will assume no responsibility for any damage or defect resulting from improper use or the non-observance of the directions given in the instruction manual.

Operating and storage conditions

- Observe the following operating conditions: 15 °C 40 °C, up to 75 % relative humidity, do not allow the formation of dew.
- Observe the following storage conditions: 10 °C 60 °C, up to 85 % relative humidity, do not allow the formation of dew.

### General safety recommendations (For your safety)

- · Carefully read through the instruction manual before use.
- Pay attention to the safety recommendations and warnings given in the instruction manual or provided on the product.
- Always retain the instruction manual available near to the product itself.
- Hand over the product to third persons only together with the instruction manual.
- Operate the product only when it is in perfect condition.
- It is advisable to build the product into a model layout permanently (fastening using glue e.g.).
- Due to the design that has to be true to scale and

faithful or is simply required by the function, the kit may contain tips, sharp edges and filigree small parts. Assembly work requires tools such as a sharp modeler's knife, sharp scissors and special adhesives. Thus, the competent processing of this scale modeling product involves a certain risk of injuries.

- It is absolutely necessary to keep this product and all accessories (adhesives, paints, knives, etc.) out of the reach of children.
- Let children use the product only under the supervision of adults.
- This product may be used by children or persons with reduced psychic, sensory or mental capabilities, or by persons lacking experience or knowledge if they work under supervision or have been instructed in the safe use of the product, and understand the hazards resulting from such activity. Cleaning and maintenance may not be carried out by children without the supervision of adults.
- Inform children of the contents of the instruction manual, if necessary, and of the potential hazards related to the use of the product.
- Children may not play with the product.
- · Never let the mains cable hang loose. The cable could become a tripping hazard or get damaged.
- · Wash your hands and clean your tools after using the product.
- . Do not eat, drink or smoke while using the product.

## Disruption hazard

Devices without tested electromagnetic compatibility may cause failures and malfunctions.

· Do not operate in the vicinity of the installation any device that was not tested.

#### Overload hazard

Operating the product with the wrong power pack may result in property damage.

## Explosion hazard

Operating the product in explosive environments or with unsuitable rechargeable batteries may trigger explosions and cause severe injuries and property damage.

· Do not operate the product in explosive environments.

#### Fire hazard

Using the product with faulty or old rechargeable batteries may trigger a fire or generate smoke, as may any wrong connection or permanent operation.

- · Do not use the product without monitoring the process.
- . Disconnect the product from the mains or power supply if you are going to be absent for a rather long period of time
- · Immediately disconnect the product from the power supply if smoke or a scorching smell is generated.
- · If a control unit, a transformer or a mains power pack features several outputs, never connect such outputs with each other in parallel or in series.

### Corrosion hazard/Risk of short-circuits

Using the product in moist rooms or any contact of the product with water may cause short- circuits and property damage.

- · Use only in dry rooms.
- · Avoid any contact with water or other liquids.

### Risk of physical injury and property damage

Improper use of the product may cause physical injury and property damage.

### Electric shock hazard

Avoid danger to life through electric shock.

- Never introduce connection wires into a socket.
- · Never put into operation a product featuring any damage or a faulty mains cable.
- · If you notice any sign of damage, a scorching smell for instance, immediately disconnect the product from the power supply.
- · Make sure the mains cable never gets stuck or rubbed on sharp edges.
- · Never open or repair the product on your own. Never make any alterations to the product that are not described in the instruction manual. The product contains live parts. There is danger to life when opening the product. Repairs may exclusively be performed by
- · To disconnect the product completely and reliably from the power supply, pull the power plug out of the receptacle.

## Environmentally sound disposal of electrical and electronic equipment

The crossed out wheeled bin symbol that can be found on your product, instruction or package indicates that this product should not be disposed of via the normal household waste stream. To prevent possible harm to the environment separate this product from other waste streams to ensure that it can be recycled in an environmentally sound manner. For more details on available collection facilities please contact your local government office. Remove any batteries, rechargeable or not, that may be present in this product before scrapping it and dispose of them separately. This information only applies to customers in the European Union. For other countries, please contact your local government to investigate the possibility of recycling your product.

Z. Scale, Hobo