

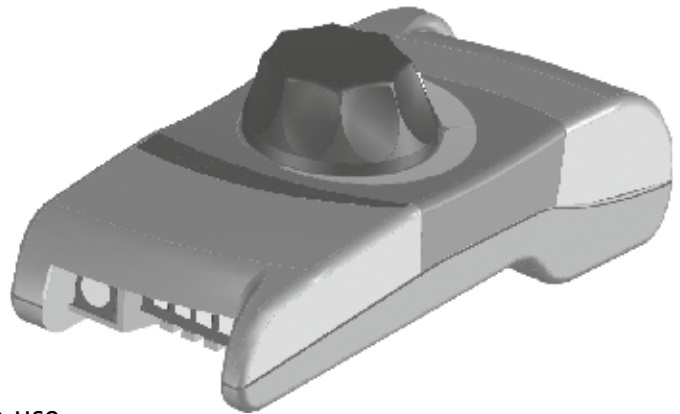
STARTING POWER CONTROLLER

The power controller that is enclosed in the starting pack is intended for the control of the traction unit or the starting pack or other TT locomotives in both directions.

It may only be used with the attached mains adapter (switching power supply that conforms with the Toy Safety Standard) as the technical properties of the controller are tailored to this appliance.

The mains adapter may only be connected to the mains by adults. The mains adapter is not a toy. The use of the entire power supply is only permissible in dry rooms.

There are no elements in the appliance that can be set meaning it is not necessary to open it. The claim to warranty shall become null and void in the event of unauthorised intervention. Send the appliance back to your specialist dealer in the event of a defect.



TECHNICAL SPECIFICATIONS

1. Electrical properties of the power supply unit:

- Input voltage: 230 V / 50 Hz
- Output voltage: 15,2 V DC
- Max. Output current: 1,9 A

2. Electrical properties of the power controller:

- Output voltage: 13 Volt square wavevoltage
- Pulse frequency: approx 130 Hz
- Output current : 0,5 A
- Short circuit shut-off: 0,55 A
- Tripping delay: ca. 5 s

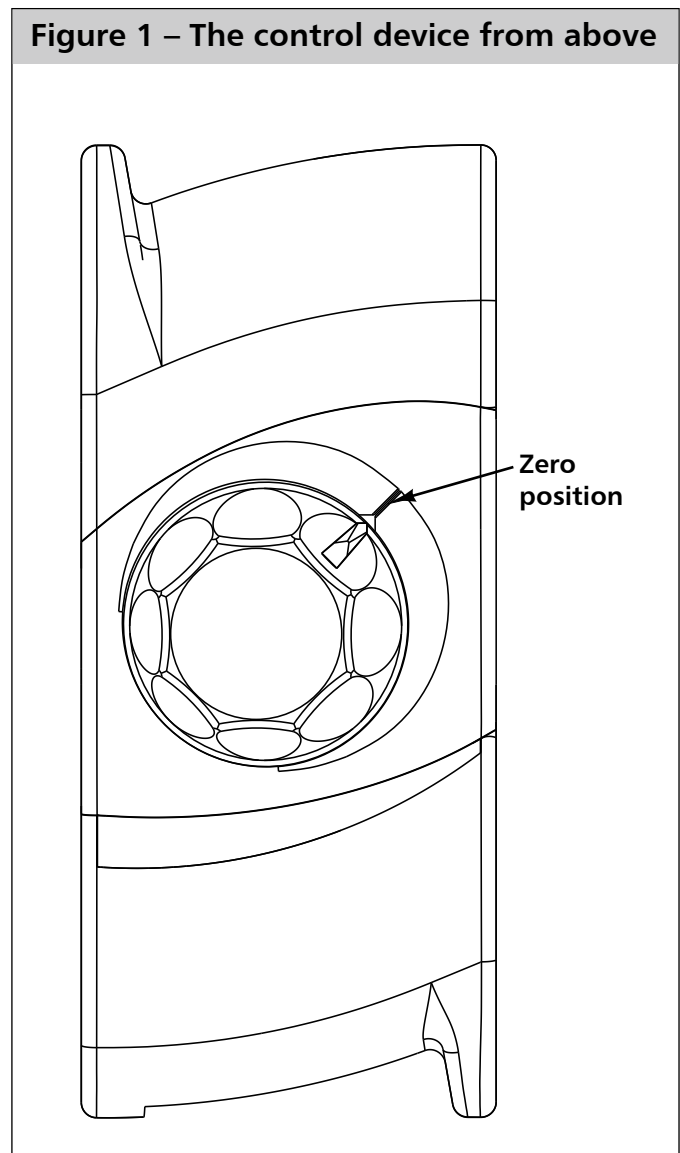
CONNECTION

The mains adapter may is connected with the jack plug to the bottom side of the control device. The tracks are connected to the controller with the attached cable by means of screw terminals.

The connection to the track is performed with the accessory shoes of the cable. Following the connection of all parts with one another the mains adapter can be connected to the home mains network.

In case obvious damage to the mains adapter it may no longer be used.

Figure 1 – The control device from above



OPERATOR

The controller can be used both manually and also as a tabletop device. The device has a rail on the device bottom for permanent use the tabletop. Using this the device can be held on a base plate by means of a holder that is screwed onto it. Various electric circuits can also be controlled from one console through the linking together of several power controllers (with different colours of the cover). The power controller can be pushed on this holder and removed again. Hence switching between both modes of operation is possible.

The power supply to the track is interrupted in the central position. A turn to the right or the left changes the pulse width of the track voltage that is virtually constant. The polarity of the voltage also changes with the switch in the reversal of the direction of rotation and thus the direction of travel of the vehicles. The LED shining signals the correct display. The brightness fluctuates a little depending on the speed of travel.

An extinguished LED or an LED that only shines weakly indicates a short circuit or an overload. In the event of a lengthier overload or a short circuit a PTC fuse (fuse element that responds to an increase in temperature) is activated. A residual current of max. 90 mA flows after this. This current neither puts the controller device at risk nor whell sets or pick-up shoes of a vehicle that possibly trigger off a short circuit. Once the cause of the overloaat has been confirmed the rotary knob of the controller must be turned back to the central position. After the PTC has cooled down after a few seconds the device is ready for operation again. The cooling down is dependet on the duration of the overload.

If the device is used permanently at the switch-off limit the device is hot to the touch. This should not be a cause of alarm. The power output permits the operation of a locomotive with LED lighting and two to three railway carriages with their lights on (irrespective of the type of lighting).

Figure 2 – The power controller from below with connector label

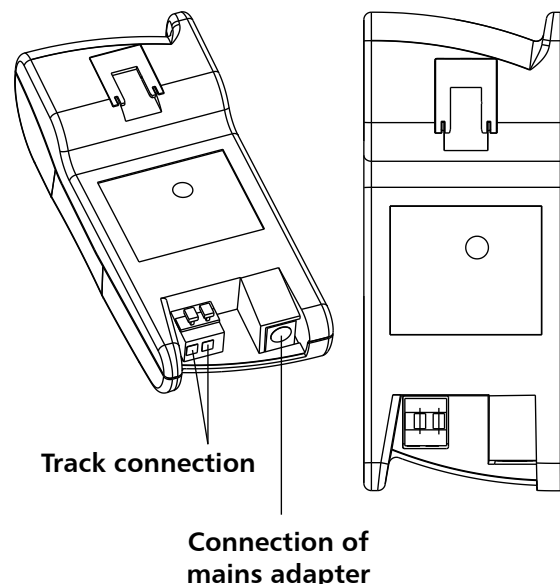
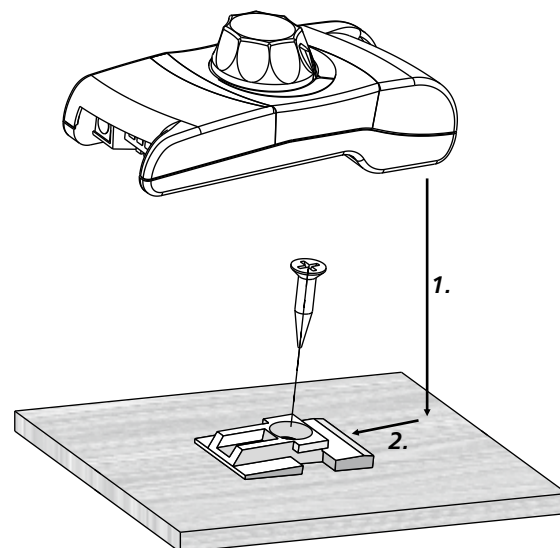





Figure 2 – The securing of the device on the base plate



	<p>Nicht geeignet für Kinder unter 14 Jahren wegen abnehmbarer und verschluckbarer Kleinteile und Verletzungsgefahr durch funktionsbedingte scharfe Ecken und Kanten.</p>	
	<p>Dieses Produkt darf am Ende seiner Nutzungsdauer nicht über den normalen Hausmüll entsorgt werden, sondern muss an einem Sammel-punkt für das Recycling von elektrischen und elektronischen Geräten abgegeben werden. Bitte fragen Sie bei Ihrem Händler oder der Gemeindeverwaltung nach der zuständigen Entsorgungsstelle.</p>	

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