# **CAUTION - ELECTRIC TRAIN**

NOT RECOMMENDED FOR CHILDREN UNDER 15 YEARS OF AGE. AS WITH ALL ELECTRIC PRODUCTS; PRECAUTIONS SHOULD BE OBSERVED DURING HANDLING AND USE TO PREVENT ELECTRIC SHOCK.

TRANSFORMER RATINGS-INPUT: 120 VAC, 60 HZ:

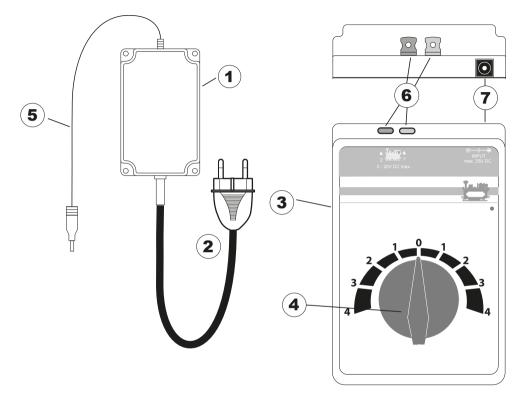
**OUTPUT: SEE SIDE PANEL** 







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- 1 Power Pack
- 2 Connection plug
- 3 Train controller
- 4 Speed controller
- 5 Connection: Control Boxes
- 6 Connection: Track
- 7 Connection: Power Pack
- 1 Convertisseur
- 2 Fiche de raccordement
- 3 Pupitre de commande
- 4 Régulateur de vitesse
- 5 Raccordement : pupitre de commande et de commutation
- 6 Raccordement : voie
- 7 Raccordement : convertisseur
- 1 Fuente de alimentación conmutada
- 2 Cable de conexión
- 3 Pupitre de conducción
- 4 Regulador de velocidad
- 5 Cable de interconexión de pupitre de conducción
- 6 Conexión: Vía
- 7 Conexión: Fuente de alimentación conmutada
- 1 Alimentatore "switching" da rete
- 2 Cavetto di connessione
- 3 Quadro di comando
- 4 Regolatore di velocità
- 5 Cavo di collegamento al quadro di comando
- 6 Connessione: binario
- 7 Connessione: alimentatore "switching" da rete

#### **Dear Parents.**

- Power packs for toys are not suitable to be used as toys. The use of power packs must always be done under the supervision of adults.
- Make sure you teach your children to use the power pack only in the manner described in the instructions.

Make sure that you teach your children about the dangers of the household current system.

Make sure you inspect the condition of the power pack and its connections to the wall outlet for damage at regular intervals (depending on how often the power pack is used to play with the train), at least once a week. This must be done with the power pack unplugged from the wall outlet. If you have the slightest suspicion that there is damage, the power pack may not be used again until it has been checked and repaired by the LGB Repair Department.1.

# 1. Safety Notes

Make sure you read the following safety notes before using a LGB power pack for the first time:

- The power pack may only be connected to a wall outlet with voltage that is the same as indicated on the specifications plate on the power pack.
- The power pack is designed for use in a dry area only.
- The power pack is not a toy. It is used to supply current to a model railroad layout.
- Never hold the power pack by its power cord when transporting it.
- Check the condition of the power cord regularly and also check the housing
  for damage. This visual check may be carried out only when the power pack is
  unplugged from the wall outlet. If you have the slightest suspicion that there is
  damage, the power pack may not be used again until it has been checked and repaired by an authorized service organization with the appropriate skills (example:
  LGB Repair Department). In this situation make sure that you dispose of the power
  pack in the proper manner or send it to the LGB Repair Department for exchange.
- The permanently attached power cord for the power pack may not be changed in any way.2. Connections for the Locomotive Controller and the Track

### 2.1 Connecting the Locomotive Controller to the Track

Screw the terminal clips to the track. Connect the red wire and the blue wire to the locomotive controller. (See Figures 1 – 7, Page 5/6)

### **Important Note:**

The train controller may only be connected to the power pack included with the set. The use of other power packs or transformers is not authorized!

### 2.2 Connecting the Train Controller to the Power Pack

The locomotive controller needs the switched mode power pack for power. Therefore only the switched mode power pack (1) may be plugged with the cable (5) into the socket of locomotive controller (7) – see illustrations on Page 4, Figure 5 on Page 6.



**Caution!** You must never have two power packs and train controllers connected to the same power circuit (track circuit) at the same time.

#### 2.3 Connections for the Power Pack

The power pack may not be plugged into the wall outlet until the wiring for the layout is finished.

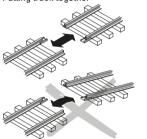
#### 2.4 Technical Data

See the specifications plate on the power pack.

## 2.5 Setup

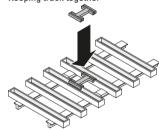






2

Keeping track together



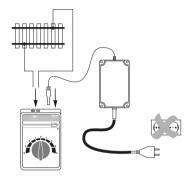


Setting up track



Connecting track to the locomotive controller and the switched mode power pack

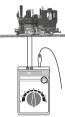






Running the train

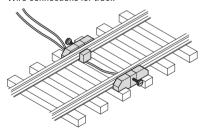






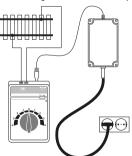


Wire connections for track





Connecting the switched mode power pack to the wall outlet



## 3. Short Circuit or Overload

#### **Overload Protection**

A built-in overload protection protects the power pack in the event of an overload or a short circuit. The locomotives will come to a stop, solenoid accessories cannot be controlled, and all lamps/lights connected to the layout will go out.

#### The following procedure is recommended:

- 1. Unplug the power pack from the wall outlet.
- 2. Look on the layout for the cause of the short circuit and correct it.
- 3. After about 1 minute the overload protection will go back to regular operation.

  After this period of time has passed, the power pack can be used again.

If the power pack shuts off again without a short circuit being found, then the power pack is overloaded. In this situation the number of users on the layout (locomotives, solenoid accessories, and lamps/lights) must be reduced.

# 4. Trouble Running the Train

- If the locomotive does not run, check to make sure that the connections (see setup) are correct or that the wire insulation was pushed into the terminal or that the switched mode power pack is plugged into the power outlet.
- If the locomotive becomes damaged, do not use the locomotive anymore. If car becomes damaged, remove this car from the train and do not use it anymore.

# 5. Cleaning and Maintenance

- Check to see if hair or dirt gets on the axles on the train and remove this hair or dirt
  from the axles with the help of a pair or tweezers so that the train runs correctly.
- The train can be wiped with a dry, lint-free cloth.

# 6. Disposing



Products marked with a trash container with a line through it may not be disposed of at the end of their useful life in the normal household trash. They must be taken to a collection point for the recycling of electrical and electronic devices. There is a symbol on the product, the operating instructions, or the packaging to this effect. The materials in these items can be used again according to this marking. By reusing old devices, materially recycling, or recycling in some other form of old devices such

as these you make an important contribution to the protection of our environment. Please ask your city, town, community, or county authorities for the location of the appropriate disposal site.

# 7. Warranty

The warranty card included with this product specifies the warranty conditions.

### 8. Locomotive

# **8.1 Safety Notes**

- . This model may only be used with the operating system designed for it.
- Use only switched mode power supply units and transformers that are designed for your local power system.
- . This locomotive must never be supplied with power from more than one power pack.
- Pay close attention to the safety notes in the instructions for your operating system.
- Not for children under the age of 15.
- WARNING! Sharp edges and points required for operation.

### **8.2 Important Notes**

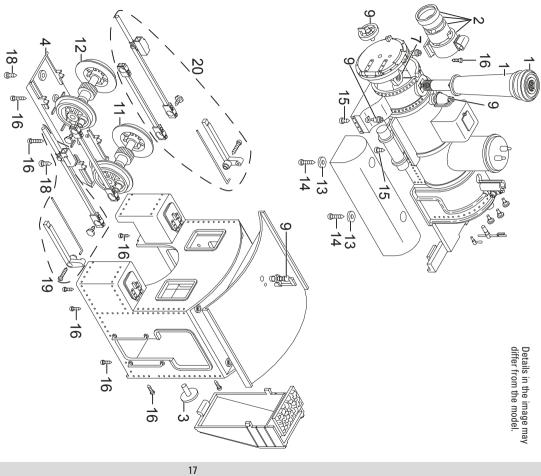
- The operating instructions are a component part of the product and must therefore be kept in a safe place as well as included with the product, if the latter is given to someone else.
- Please see your authorized LGB dealer for repairs or spare parts.
- · The warranty card included with this product specifies the warranty conditions.
- Disposing: www.maerklin.com/en/imprint.html

#### 8.3 Functions

This model is designed for operation on LGB two-rail DC systems with conventional LGB DC train controllers or power packs (DC, 0 – 24 volts).

#### **General Note to Avoid Electromagnetic Interference:**

A permanent, flawless wheel-rail contact is required in order to guarantee operation for which a model is designed. Do not make any changes to current-conducting parts.



1100		3 !
E177 545	Schleifschuhe u. Kohle	21
E286 429	Gestänge rechts	20
E286 428	Gestänge links	19
E124 197	Schraube	18
E124 206	Schraube	17
E124 010	Schraube	16
E124 014	Schraube	15
E124 205	Schraube	14
E124 208	Beilagscheibe	13
E178 644	Radsatz	12
E178 647	Radsatz	=
E178 623	Bremsbacke	10
E286 427	Glocke, Pfeife, Öler	9
E191 685	Tritte	<b>∞</b>
E129 249	Sechskantmutter	7
E171 327	Kupplung	6
E134 719	Motor	5
E193 525	Deckel, Boden	4
E184 613	Puffer	ω
E286 426	Stirnlampe	2
E204 654	Schornstein	_

Note: Several parts are offered unpainted or in another color. Parts that are not listed here can only be repaired by the Märklin repair service department.

Remarque : Certains éléments sont proposés uniquement sans livrée ou dans une livrée différente. Les pièces ne figurant pas dans cette liste peuvent être réparées uniquement par le service de réparation Märklin.

Nota: algunas piezas están disponibles sólo sin o con otro color. Las piezas que no figuran aquí pueden repararse únicamente en el marco de una reparación en el servicio de reparación de Märklin.

Avvertenza: Alcuni elementi vengono proposti solo senza o con differente colorazione. I pezzi che non sono qui specificati possono venire riparati soltanto nel quadro di una riparazione presso il Servizio Riparazioni Märklin.

Wagen 1

Kontaktdrähte, Blech

E193 526

#### Kupplung Puffer Kupplungsabdeckung **Kunststoff-Scheibenradsatz** Kupplung Schraube 3,0 x 9,5 Wagen 2 Drehgestell mit Haken Drehgestell ohne Haken Bremsschlauch, Bremsgestänge Bremsschlauch, Tritt Kunststoff-Speichenradsatz, Schraube $3.0 \times 6.5$ Schraube $2.2 \times 4.5$ ယ 0 8 E183 689 E124 014 E129 265 E130 978 E171 327 E124 197 E171 327 E135 031 E135 026 E135 004 E186 848 $\frac{2}{3}$ 67 301 67 401 8 $\infty$ MITTO (I) 8

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Details in the image may differ from the model.



