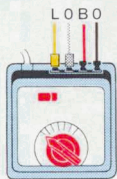


märklin

Z

**Ratgeber
Adviser
Conseiller
Instruktion
Consejero
Consigliere
Vejledning
Adviseur**



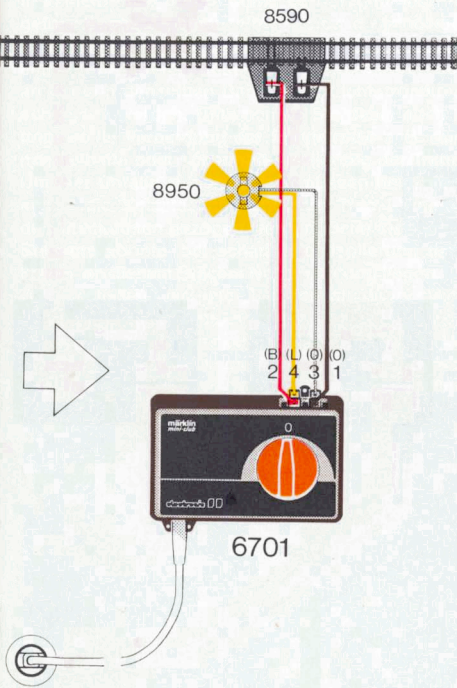
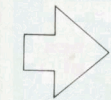
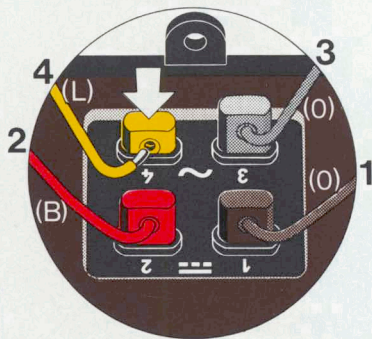
6720 100 V

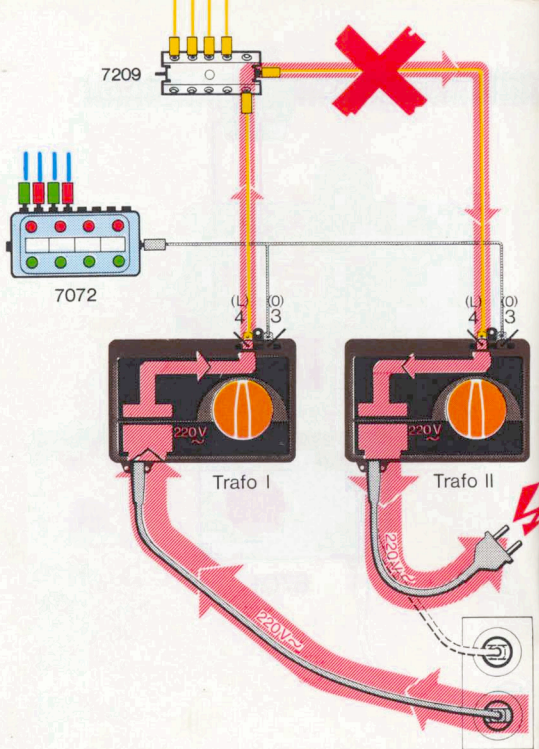
6727 120 V

6729 240 V

6731 220 V

6711 220 V





In keinem Falle dürfen außer den grauen auch noch die gelben Buchsen der einzelnen Trafos in irgendeiner Weise verbunden werden. Jeder Transformator muß seinen eigenen Stromkreis haben. 2 Transformatoren dürfen nie an ein und denselben Bahn- oder Lichtstromkreis angeschlossen werden. Bitte achten Sie dabei auch auf eine ungewollte Verbindung der Stromkreise z. B. durch eine mangelhafte oder schadhafte Isolierung der Trennstellen. Um hier Unfälle zu vermeiden, müssen beim Abschalten immer die Netzstecker sämtlicher Transformatoren aus den Steckdosen gezogen werden. Beim Ziehen nur eines Steckers könnte, bei schadhafter Isolierung der Stromkreise, an diesem Stecker Netzspannung liegen.

Wir empfehlen, mehrere Transformatoren gemeinsam an einer Mehrfach-Tischsteckdose anzuschließen. Es braucht dann immer nur der Stecker am Anschlußkabel der Mehrfach-Steckdose gezogen werden. Wird vor der Steckdose ein Schalter eingebaut, so muß er beim Ausschalten 2polig trennen.

Instructions for connecting and operating electric railroads

1. Power Pack

Every power pack is manufactured to work at a particular voltage, as shown on its power-rating plate. The house current voltage and type of current (a. c. or d. c.) for your home can be found on your electricity meter.

Caution:

The power pack must only be used with alternating current and must not be used in a damp environment. Make sure your power pack is unplugged when assembling track or switches.

2. Extending the layout

Before extending the layout the new track plan should be considered. Our publication 0295 "mini-club Track Plan Book" contains relevant information. While extending the layout it is necessary to pay constant attention to the good connection between rail and conductor connection clips, to avoid a voltage drop. If one power pack is used to power an extensive layout, two or more feeder track sections will probably be required.

3. Multi-train operation using separate tracks

To enable each locomotive to be controlled individually, larger layouts are divided into several separate circuits, using conductor insulators 8954. Each circuit has its own power pack with at least one feeder track connection. Before connecting two power packs, the following check should be carried out:

Connect both power packs to the house current supply and adjust them to a low output voltage. The ground connecting sockets "0" should be connected together. If a test lamp connected to the "B" socket illuminates, this shows that the power packs are connected with opposite polarities, and the house power packs should be plugged in the other way round. Every additional power pack should be checked in this way in its turn.

Under no circumstances should the yellow sockets on one power pack be connected to the yellow on any other. Grey sockets may be connected to each other. Each power pack must have its own circuit. 2 power packs should never be connected to the same traction or lightning circuit. Take care that the circuits are not connected together unintentionally, by inadequate or damaged isolation at circuit isolation points. For example, to avoid accidents due to this, it is important that when the layout is being switched off, all power pack plugs should be removed from main sockets. With only one plug removed, if there were faulty circuit isolation, it would be possible for the mains voltage to be present on this plug.

We recommend that all power packs should be connected to a single mains splitter box fixed to the layout table. It is then only necessary to remove the splitter box supply, it must be of the 2 pole type and isolate both lines.

4. Switching to forward or reverse drive.

To reverse direction, turn the speed control knob to zero and then slide the reverse switch at the top of the power pack over. Then turn the speed control knob slowly to the right.

5. Track maintenance

Current is supplied via one rail and returned via the other rail and the wheel. To keep the electrical resistance as low as possible we suggest you keep the surface of tracks and wheels free from oil and dust. For cleaning the track we recommend our track cleaning railcar 8802.

6. Short circuit

If a short-circuit is discovered on the layout, it should be eliminated. If the power pack's circuit breaker repeatedly shuts the power pack off and no short circuits can be found, then the power pack is probably overloaded by too many electrically operated items (ex. locomotives, switches, lights, etc.) Some of these should then be connected to another power pack.

Dear children

Should you find it too difficult to connect the power pack to your layout and operate it immediately, do ask your parents or any other adult to help you. We are sure they will gladly give you the assistance you may need.

Dear parents,

There is no need to worry about overloading or other faulty conditions such as fire, electric shock or injury to persons when using your Märklin power pack. In the event of a short-circuit or overloading a built-in thermal

switch cuts off the current automatically. If this occurs, we advise you to set the speed control knob to "0" and wait until the current switches on again. This will take about 1 minute.

Please check your child's layout regularly as follows:

1. Is the power pack connected properly to the plug socket?

Please connect properly.

2. Does the power pack show external damage?

Faulty power packs must no longer be used. They must be turned to us to repair.

3. Are the wires from the power pack to the feeder track connected properly?

Connect the wires from the feeder track to the power pack, making sure you follow the color codes.

4. Are individual pieces of tracks receiving no power when the power pack is switched on?

Make sure that sections fit snugly together. Since the electrical current that powers your train travels down the rails, you want to be sure the flow isn't interrupted in any way.

5. Does a bulb connected to sockets marked "0" and "L" light up?

If the lamp does not light up, there can be a short circuit on the layout. Results can be:

1. A car metal item may be on the track touching both rails
2. Tracks are not connected properly
3. Incorrect wiring to the track

If there is a short circuit on your layout, refer to part 6.

Regular checking of the above five points will ensure

trouble-free operation.

En aucun cas, les prises jaunes des transformateurs ne doivent être reliées entre elles. Chaque transformateur doit alimenter son canton, et les prises grises de tous les transformateurs doivent être reliées entre elles. Ne branchez jamais 2 transformateurs à un même canton ou au même circuit lumière. Éviter également tout branchement accidentel pouvant résulter d'un mauvais isolement des cantons. Si vous constatez un tel défaut, il faut retirer toutes les fiches des transformateurs des prises de courant afin d'éviter des accidents. En effet, si l'on ne retire qu'une fiche, elle peut rester sous tension secteur, et cela même si une seule fiche secteur reste branchée.

Pour le branchement de plusieurs transformateurs, nous conseillons l'utilisation d'une prise de courant sur la table avec fiches multiples. Il suffit alors de couper l'alimentation secteur de cette prise pour couper toute l'alimentation du réseau. Si l'on préfère utiliser un interrupteur pour couper le courant, il faut utiliser un interrupteur bipolaire.

In geen geval mogen behalve de grijze ook nog de groene contactbussen van de afzonderlijke transformatoren op een of andere manier onderling met elkaar verbonden worden. Iedere transformator moet zijn eigen stroomkring hebben. 2 transformatoren mogen nooit op een en dezelfde baan- of lichtstroomkring worden aangesloten. Daarbij moet ook gelet worden op een onvoorziene verbinding van stroomkringen b. v. door een onvolledige of defecte isolatie van de stroomkringscheidingen. Om hier ongevallen te voorkomen, moeten bij het uitschakelen van de baan altijd de netstekers van alle transformatoren uit de wandcontactdozen (stopcontacten) getrokken worden. Indien slechts één stekker wordt uitgetrokken, kan bij onvolledige isolatie van de stroomkringen, op deze ene stekker netspanning staan.

Het verdient aanbeveling bij gebruik van meerdere transformatoren, deze gezamenlijk op een meervoudige tafcontactdoos aan te sluiten. Dan behoeft slechts de ene stekker van het aansluitsnoer van de meervoudige contactdoos uitgetrokken te worden. Wordt vòòr de contactdoos een schakelaar ingebouwd, dan moet deze wel dubbelpolig uitschakelen.

De ninguna manera deben de unirse los transformadores entre sí a excepción del enchufe gris. Cada transformador debe de tener su circuito de corriente propio. Cada circuito de vías o circuito de alumbrados no debe de tener nunca más que un solo transformador. Por favor, vigile especialmente cortocircuitos escondidos y uniones accidentales de varios circuitos eléctricos producidos por

aislamientos defectuosos o puntos de separación imperfectos. Para impedir accidentes deben de sacarse cada vez después de terminar el juego todas las clavijas de los transformadores de los enchufes a la red de alumbrado. Si se saca solamente un enchufe de varios transformadores y existen aislamientos defectuosos en la instalación del tablero, es posible que la clavija de transformador todavía esté bajo tensión.

Recomendamos enchufar varios transformadores a una tabla con varios enchufes. De esta forma basta con cerrar la llave o retirar la clavija de esta tabla para dejar todos los transformadores sin corriente. Es muy importante que la llave o el interruptor sea bipolar y actúe sobre los dos hilos eléctricos.

Le boccole gialle dei trasformatori non si devono, in nessun caso, collegare tra di esse; mentre quelle grigie si. Ogni trasformatore deve avere il proprio circuito di corrente. 2 trasformatori non possono mai essere collegati ad uno stesso circuito di corrente o di luce. Inoltre si faccia attenzione sul collegamento dei circuiti elettrici p. es. a causa di difettosa isolazione. Per evitare incidenti, nel togliere la corrente, staccare sempre la spina di collegamento di tutti i trasformatori dalle prese di corrente. Togliendo una sola spina, in caso d'isolazione imperfetta, la corrente potrebbe rimanere nel circuito.

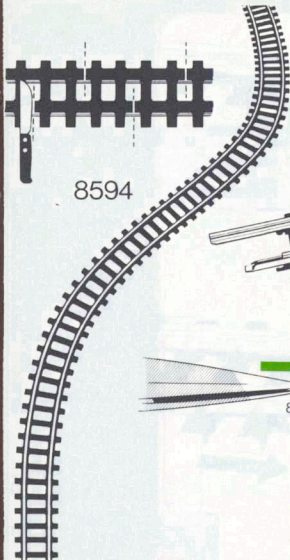
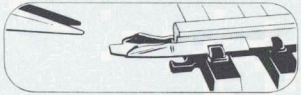
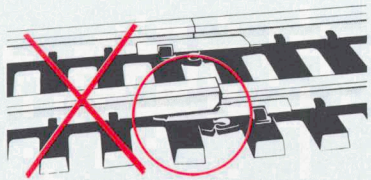
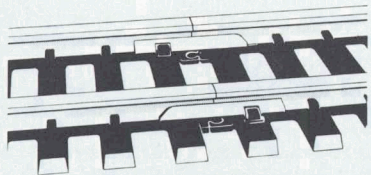
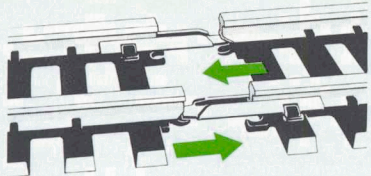
Raccomandiamo di collegare più trasformatori ad una presa di corrente multipla, così è sufficiente una sola spina con cavo di collegamento alla rete. Se prima della presa di corrente viene installato un interruttore si tenga conto della separazione bipolare.

Med undantag för de grå uttagen får under inga omständigheter någon som helst anslutning göras till de gula uttagen (belysning) mellan två eller flera transformatorer. Varje transformator måste ha sin egen strömkrets. 2 trafos får absolut inte kopplas till en och samma kör- eller belysningsströmkrets. Kontrollera noga att inte en oavsiktlig förbindelse uppkommit mellan strömkretsarna, t ex på grund av en dålig eller skadad isolering vid något avbrottsställe. För säkerhets skull bör man vid fränkoppling dra ur alla stickpropparna ur väggkontaktarna.

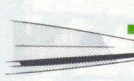
Vi föreslår, att transformatorerna ansluts till ett grenuttag. Då räcker det med att dra ur stickproppen till grenuttaget.

En transformators gule bøsning må aldrig forbindes med en anden transformators gule bøsning. Hver transformator skal have sin egen strömkreds. 2 transformatorer må absolut ikke tilsluttes en og samme kørsels- eller belysningsströmkreds.

Kontroller at der ikke forekommer en uønsket forbindelse mellem strömkredsene fks. på grund af dårlig isolering ved afbrydelsessteder. For en sikkerheds skyld bør man ved afbrydelse altid tage lyskontakt-stikkene ud fra vægkontakten. Vi anbefaler at tilslutte flere transformatorers stikkontakter til en flerdelt bord- eller vægstikdåse.



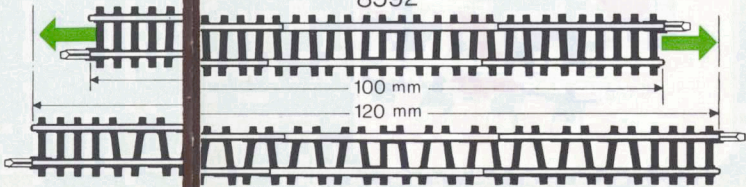
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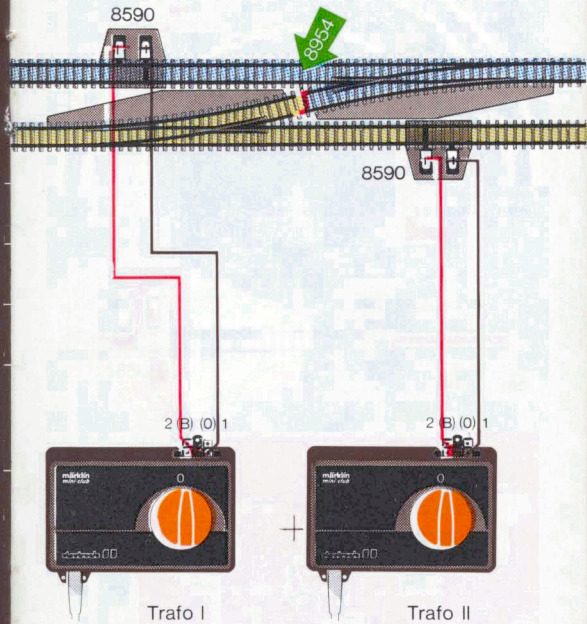
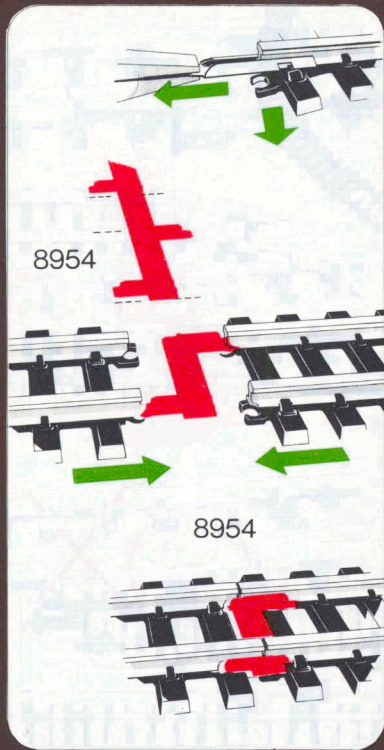


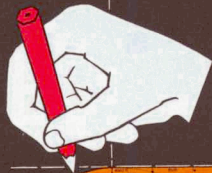
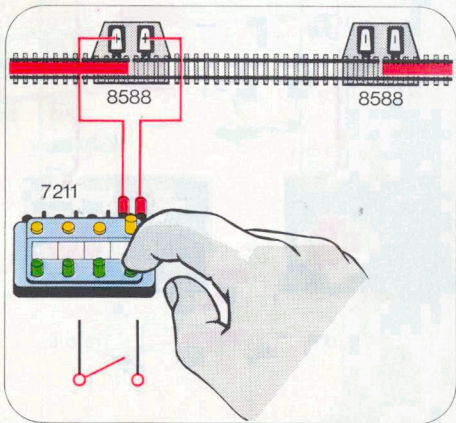
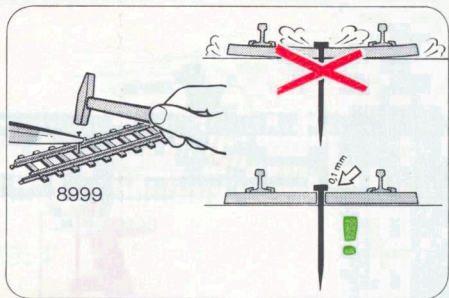
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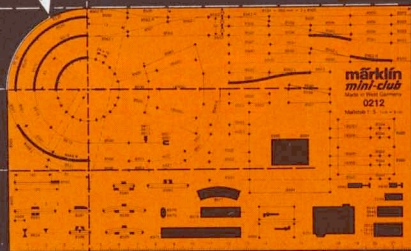
100 mm

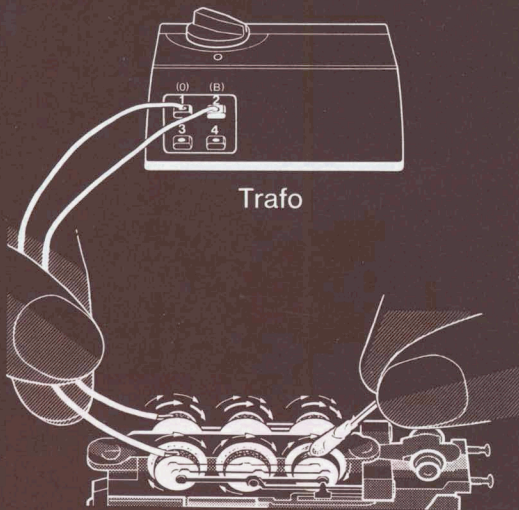
120 mm



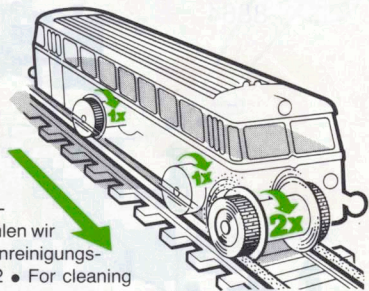
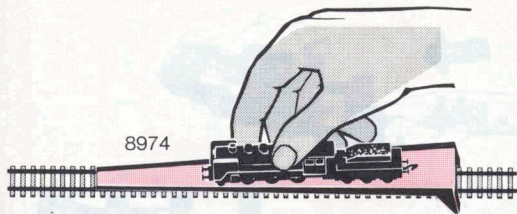


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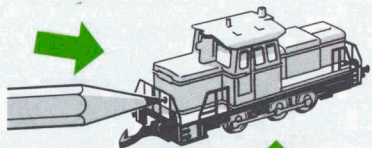




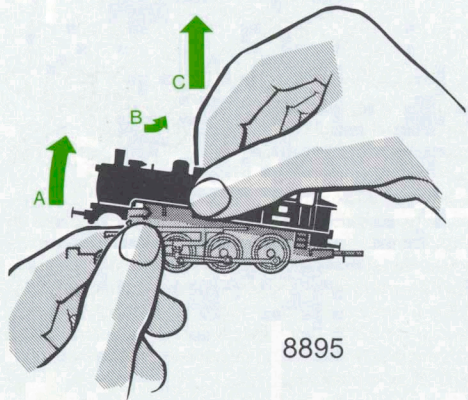
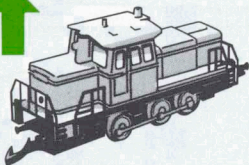
Trafo



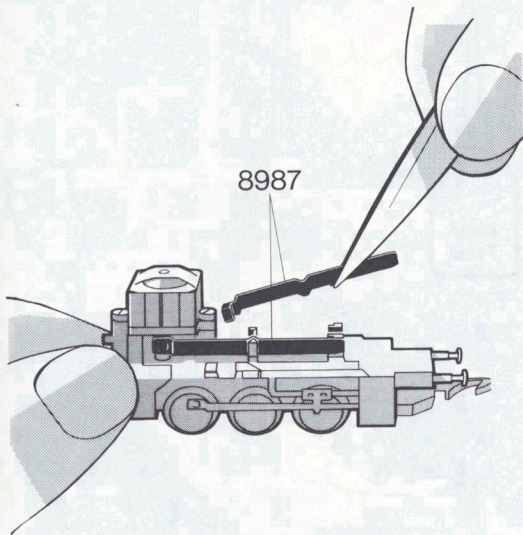
Für die Schienen-
reinigung empfehlen wir
unseren Schienenreinigungs-
Triebwagen 8802 • For cleaning
the track we recommend
our track cleaning railcar 8802 • Nous vous con-
seillons notre véhicule automoteur de nettoyage 8802 pour un
nettoyage complet de la voie • Voor het schoonmaken van de
rails adviseren wij onze railreinig-motorwagen 8802 • Para la
limpieza de las vías recomendamos nuestro automotor limpia-
vías 8802 • Per la pulizia delle rotaie raccomandiamo la ns.
automotrice 8802 • För spårrengöring rekommenderas
spårrensingsvagn 8802 • Vi anbefaler vor skinnerens-
vogn 8802 til skinnerensning



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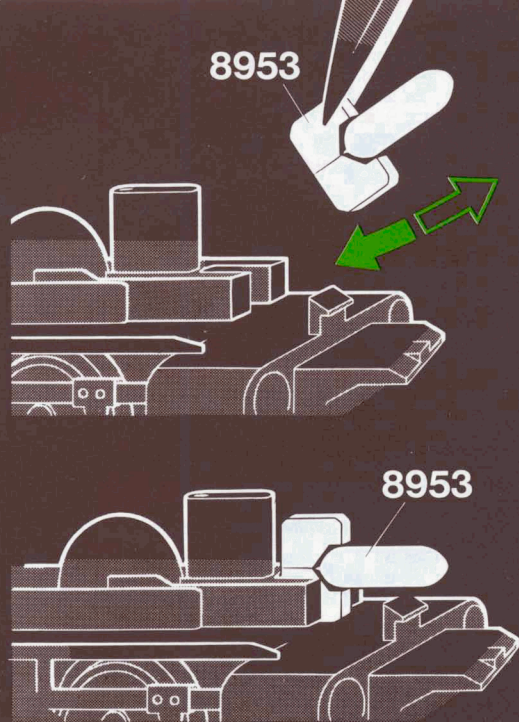
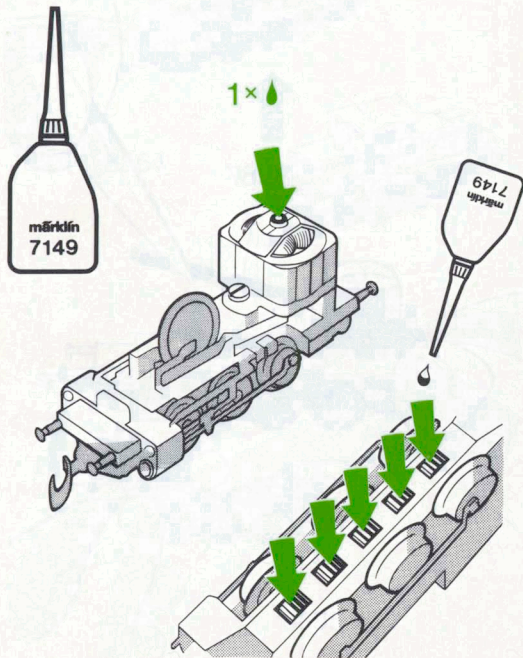


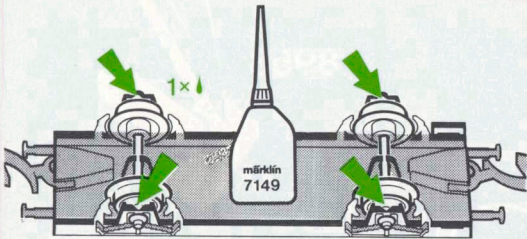
8895



8987

Nach 20 Betriebsstunden
After 20 h service





Die Radlager aller 2achsigen Wagen sind vor Inbetriebnahme zu ölen.

Before twin-axled cars are used for the first time their wheel bearings should be lubricated.

Huiler les paliers des essieux de roues des wagons à deux essieux avant la mise en service.

De wiellagers van alle 2-assige wagens moeten voor ingebruikname geolied worden.

Engrasar todos los cojinetes de los coches de 2 ejes antes de rodar.

Oleare le sedi delle ruote di tutti i vagoni a 2 assi prima dell'avviamento.

Hjullagren på alla 2-axliga vagnar bör smörjas före ibruktagandet.

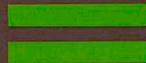
Hullejerne på alle 2-akslede vogne skal smøres med olie før de tages i brug.



ACHTUNG!
ATTENTION!



AC
Courant alternatif



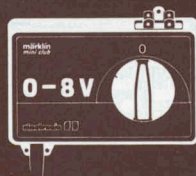
märklin
mini-club

6700 - 6729

Gleichstrom

DC

Courant continu





Die Lokomotive ist mit Funk-Entstörmitteln ausgestattet, die im Zusammenwirken mit den in den Märklin-Transformatoren 6711 bzw. 6731 und im Anschlußgleisstück 8590 eingebauten Störschutzelementen das Einhalten der Bestimmungen von VDE 0875 gewährleisten. Sollten beim Betrieb der Eisenbahnanlage, z. B. wegen zu geringem Abstand gegenüber der Empfangsantenne oder bei Abweichungen vom vorgegebenen Aufbau der Verkaufspackung, Funkstörungen auftreten, so ist die Störung sofort, z. B. durch Aufstellen der Anlage an einem anderen Ort oder durch Ändern des Aufbaues, zu beseitigen.

Gebr. Märklin & Cie. GmbH
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