

## EQUIPMENT

The recommended minimum radius that can be driven on is 360mm.

The model has a 6-pin interface according to NEM 651 for the digital operation.

The model features for the better Contact security not about traction tires.

The model is operated in analog mode with max. 12V DC and is Compatible with all common Gauge HO direct current railway systems.

## GENERAL INFORMATION

Do not expose the model to intense sunlight or other strong heating light sources. Strong UV radiation changes or ages paintwork. High temperatures can deform the plastic parts and cause the paint to fade.

The statutory regulation applies to any warranty claims. Please contact the seller of the model. Please keep the proof of purchase as a basis for warranty claims.

Scale model for adult collectors. Recommended for collectors aged 14+. Due to scale and prototypical implementation or function-related design, tips, edges and small parts are included. choking hazard. Please keep the packaging for future reference.

Detailed scale model for adult collectors. Recommended for collectors aged 14 years or older. Product could contain functional sharp edges and small parts which can present a choking hazard. Please handle with care. Please retain packaging for future reference.



## Draisine Klv 20 HO gauge Manual

In 1954/55 new handcars were ordered by the DB. A total of 30 Klv 20 vehicles were ordered based on the body of the VW T1. An air-cooled VW industrial engine with a displacement of 1.2 liters and 28 hp served as the drive. Top speed 70 km/h, total weight approx. 1400 kg. The DB retired Klv 20 by 1977, they continued to be used by other railways and some of them have survived to this day.



### ATTENTION:

Adult scale model  
Collectors aged 14+.  
Detailed scale model for adult collectors.  
Recommended for collectors aged 14 years or older.

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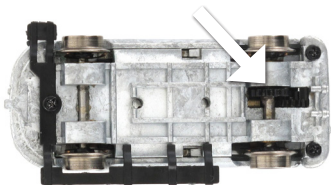
Information on the Modellbahn Union range can be found at [info.modellbahnunion.com](mailto:info.modellbahnunion.com)

## MAINTENANCE

When using the model for the first time, please run it in for about 20 minutes in each direction at medium speed.

After an operating time of approx. 10 hours, the gear wheels of the gearbox must be lightly greased from the outside.

To grease the bogie gears, apply some model railway grease to the visible axle gears. Do not use oil! The grease is distributed in the drive mechanism.

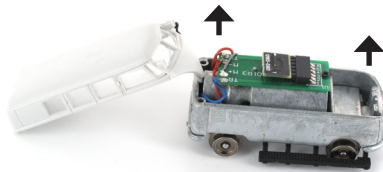


To ensure proper power consumption, both your rails and the wheels of the handcar should be kept free of dust and dirt. The wheels of the draisine can be used with the usual cleaning liquids are cleaned.

We recommend AC13 Track Magic by Deluxe materials.

## INSTALLATION OF A DIGITAL DECODER

To install a digital decoder, the upper part of the housing must be lifted off. The separating edge is below the windows, with slight lateral pressure on the upper part, the component can be easily removed from the three holding points.



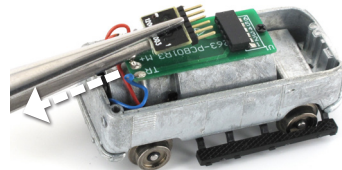
For safe storage of the individual parts and for further work on the model we recommend the Modellbahn Union Locomotive MU-H0-A00500.

The 6-pin interface for the decoder is on the top of the board.

When putting on the housing later, make sure that it is in the correct position and that no cables etc. are pinched.

## INSTALLATION OF A DIGITAL DECODER

You can easily pull off the dummy plug from the side with pointed pliers. This exposes the contact points for the decoder. You can now plug in the decoder.



Make sure that the installation position is correct and that the decoder does not touch any other metal components. Information on this can be found in the Decoder instructions.

Important note:  
In the case of digitization you need to replace the 100nF capacitor (C1) on the bottom of the motherboard with a 10nF capacitor. Soldering work is necessary for this, for which the corresponding soldering skills on SMD components are required. The SMD capacitor to be used should be size 0805. Please note that the decoder you retrofit may not respond if the capacitor is not replaced.