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› Piko 40505 N-Diesel Locomotive BR 221 Instruction Manual

## Piko 40505

# Piko 40505 N-Diesel Locomotive BR 221 Instruction Manual

Model: 40505

## 1. INTRODUCTION

The Piko model of the BR 221, designed for passenger and freight train use, impresses with a successful representation of its robust front shape, sharp engravings, fine grille and exhaust vent replicas on the roof, and detailed bogies with many intricate details. A powerful, smooth-running motor drives all four axles, ensuring excellent driving characteristics for this contemporary model. The PIKO BR 221 features a clear, functional, and low-maintenance construction. Lighting is provided by LEDs. This manual provides essential information for the safe and effective use of your model locomotive.



Image 1.1: Piko 40505 N-Diesel Locomotive BR 221. This image shows the beige and dark green locomotive with its detailed front and side profile.

## 2. SAFETY INFORMATION

Please read all safety instructions carefully before operating the model locomotive. Failure to follow these instructions may result in injury or damage to the product.

- This product is not a toy. It is intended for hobbyists aged 10 years and older. Keep out of reach of younger children due to small parts.

- Operate the locomotive only with a suitable N-scale power supply or Digital Command Control (DCC) system. Ensure the power supply voltage matches the locomotive's requirements.
- Do not expose the locomotive to water or excessive humidity.
- Avoid touching moving parts during operation.
- Disconnect power before performing any maintenance or adjustments.
- Handle the model with care to prevent damage to delicate components.

## 3. PACKAGE CONTENTS

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Upon opening the packaging, please verify that all components are present and undamaged. The standard package for the Piko 40505 N-Diesel Locomotive BR 221 should include:

- Piko 40505 N-Diesel Locomotive BR 221 with Sound and Next 18 Decoder
- Instruction Manual (this document)
- Original packaging for safe storage

If any items are missing or damaged, please contact your retailer or Piko customer support.

## 4. SETUP

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### 4.1 Unpacking

1. Carefully remove the locomotive from its packaging. Retain the original packaging for future storage or transport.
2. Inspect the locomotive for any visible damage that may have occurred during shipping.

### 4.2 Track Preparation

- Ensure your N-scale tracks are clean and free of dust, debris, or oil. Clean tracks ensure optimal electrical contact and smooth operation.
- Verify that all track connections are secure and provide continuous electrical conductivity.

### 4.3 Power Connection (DCC System)

The Piko 40505 is equipped with a Next 18 decoder, designed for Digital Command Control (DCC) operation. Connect your DCC system to the track according to its manufacturer's instructions.

- Ensure your DCC system is powered on and functioning correctly.
- The locomotive comes with a default DCC address (usually 3). Refer to your DCC system's manual for instructions on how to select and change locomotive addresses.

### 4.4 Initial Placement on Tracks

Carefully place the locomotive on the tracks, ensuring all wheels are properly seated on the rails. Avoid dropping the locomotive onto the tracks.

## 5. OPERATING INSTRUCTIONS

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The Piko 40505 N-Diesel Locomotive is designed for operation with a Digital Command Control (DCC) system.

## 5.1 Basic DCC Operation

1. Select the locomotive's address (default is 3) on your DCC controller.
2. Use the speed control knob or buttons to increase or decrease the locomotive's speed. Start with low speeds to ensure smooth operation.
3. Use the direction control to switch between forward and reverse.

## 5.2 Sound Functions

The integrated sound decoder provides realistic diesel locomotive sounds. These functions are typically controlled via function buttons (F-keys) on your DCC controller.

- **F0:** Headlights/Tail lights (directional)
- **F1:** Engine Start/Stop
- **F2:** Horn (short)
- **F3:** Horn (long)
- **F4:** Brake sound
- **F5:** Air compressor
- **F6:** Coupling sound
- Refer to your DCC system's manual and the decoder's specific documentation for a complete list of available sound functions and their corresponding F-keys.

## 5.3 Lighting Functions

The locomotive features LED lighting. Headlights and tail lights operate directionally. Function F0 typically controls these lights.

# 6. MAINTENANCE

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Regular maintenance ensures the longevity and optimal performance of your Piko 40505 locomotive.

## 6.1 Cleaning

- **Exterior:** Gently wipe the locomotive body with a soft, lint-free cloth. For stubborn dirt, a slightly damp cloth (water only) can be used, followed by immediate drying. Avoid abrasive cleaners or solvents.
- **Wheels:** Periodically clean the wheel treads with a specialized track cleaning fluid or a cotton swab dampened with isopropyl alcohol. Dirty wheels can impair electrical contact and running performance.
- **Track:** Keep your tracks clean to prevent dirt transfer to the locomotive's wheels.

## 6.2 Lubrication

The locomotive's moving parts (gears, axles) are factory-lubricated. Over time, light lubrication may be required. Use only specialized model train lubricants. Apply a very small drop to visible gear teeth and axle bearings. Avoid over-lubrication, as this can attract dust and hinder performance.

## 6.3 Storage

When not in use, store the locomotive in its original packaging or a dedicated model train storage case. Keep it in a dry, dust-free environment away from direct sunlight and extreme temperature fluctuations.

# 7. TROUBLESHOOTING

If you encounter issues with your locomotive, refer to the following common problems and solutions:

| Problem                            | Possible Cause                                                                                | Solution                                                                                                                                  |
|------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Locomotive does not move.          | No power to track; dirty wheels/track; incorrect DCC address; locomotive not seated properly. | Check power supply and track connections. Clean wheels and track. Verify DCC address. Re-seat locomotive on track.                        |
| Lights are not working.            | F0 function not activated; wiring issue; damaged LEDs.                                        | Activate F0 on your DCC controller. Check for loose wires (if comfortable doing so). Contact support if LEDs are damaged.                 |
| Sound is not working or distorted. | Sound function not activated; volume set too low; speaker issue.                              | Activate relevant sound functions (e.g., F1 for engine start). Check DCC system for volume control. Contact support if speaker is faulty. |
| Locomotive derails frequently.     | Uneven track; damaged wheels/bogies; excessive speed on curves.                               | Inspect track for levelness and proper gauge. Check wheels and bogies for damage. Reduce speed on curves.                                 |

If the problem persists after attempting these solutions, please contact Piko customer support or your retailer for further assistance.

## 8. SPECIFICATIONS

| Feature                      | Detail                                                              |
|------------------------------|---------------------------------------------------------------------|
| Brand                        | Piko                                                                |
| Model Number                 | 40505                                                               |
| Item Type Name               | N-Diesel Locomotive/Sound BR 221 Beige-Blue DB IV + Next 18 Decoder |
| Scale                        | N-Scale                                                             |
| Locomotive Type              | Diesel Locomotive                                                   |
| Decoder Type                 | Next 18 (DCC with Sound)                                            |
| Color                        | Beige/Dark Green                                                    |
| Material                     | Metal                                                               |
| Lighting                     | LEDs                                                                |
| Manufacturer Recommended Age | 10 years and older                                                  |
| Batteries Required           | No                                                                  |
| Assembly Required            | No                                                                  |

| Feature | Detail |
|---------|--------|
|---------|--------|

|                  |               |
|------------------|---------------|
| Model Year       | 2021          |
| Publication Date | April 8, 2021 |

## 9. WARRANTY AND SUPPORT

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For information regarding warranty coverage, please refer to the warranty card included with your product or visit the official Piko website. For technical support, spare parts, or service inquiries, please contact your authorized Piko retailer or Piko customer service directly. When contacting support, please have your model number (40505) and purchase information readily available.

**Piko Website:** [www.piko.de](http://www.piko.de)