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Athearn ATHG63868

Athearn HO DCC Adapter Board Genesis ATHG63868 Instruction Manual

Model: ATHG63868

1. PRODUCT OVERVIEW

The Athearn HO DCC Adapter Board Genesis ATHG63868 is designed to facilitate the installation of a Digital Command Control (DCC) decoder into Athearn Genesis HO scale locomotives. This adapter board provides a standardized interface, simplifying the conversion of DC locomotives to DCC operation by offering clear connection points for the decoder and locomotive components.

It is intended for experienced model railroaders familiar with locomotive disassembly, soldering, and DCC system integration.

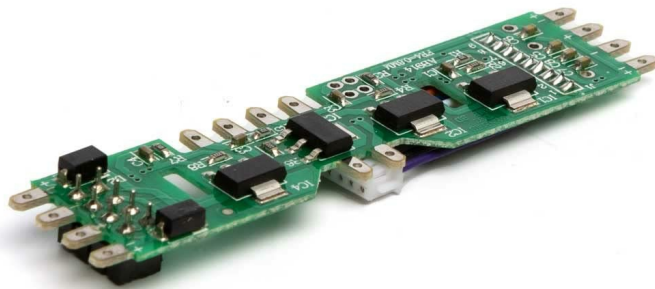


Figure 1: Athearn HO DCC Adapter Board Genesis ATHG63868. This image displays the green circuit board with a multi-colored wiring harness connected to a beige connector, and various solder pads labeled for track, motor, and lighting connections.

2. SETUP AND INSTALLATION

Before beginning installation, ensure the locomotive is disconnected from all power sources. This procedure requires basic soldering skills and familiarity with model locomotive electronics.

2.1 Required Tools and Materials

- Small Phillips head screwdriver
- Soldering iron and fine-gauge solder
- Wire strippers
- Heat shrink tubing or electrical tape
- Digital Command Control (DCC) decoder (not included)
- Multimeter (optional, for continuity testing)

2.2 Installation Steps

1. **Locomotive Disassembly:** Carefully remove the locomotive shell according to the manufacturer's instructions for your specific Athearn Genesis model. Locate the existing DC lighting board or wiring harness.
2. **Remove Existing Components:** Disconnect and remove the original DC lighting board or any components that will be replaced by the DCC adapter board. Note the orientation and connections of all wires.
3. **Connect Track Power:** Solder the track pick-up wires from the locomotive to the designated pads on the adapter board. Refer to the labels: **RHTRK** (Right Rail) and **LHTRK** (Left Rail). Ensure correct polarity.
4. **Connect Motor Wires:** Solder the motor wires to the appropriate pads. These are typically labeled **MOT+** and **MOT-** (or similar, consult your decoder's manual for specific motor output connections). The adapter board provides connections for the motor.
5. **Connect Lighting:** Solder the locomotive's lighting wires (headlight, reverse light, ditch lights, etc.) to the corresponding function output pads on the adapter board. Common labels include **FOF-P** (Front Output Function Positive), **FOF-N** (Front Output Function Negative), **BLU** (Blue Common Positive), and other function outputs (F1, F2, etc.).
6. **DCC Decoder Connection:** Plug your chosen DCC decoder into the multi-pin connector on the adapter board. Ensure the decoder is correctly oriented according to its manufacturer's instructions and the adapter board's markings. The adapter board is designed to accept standard 8-pin or 9-pin DCC decoders.
7. **Secure Wiring:** Use heat shrink tubing or electrical tape to insulate all soldered connections. Route wires neatly to prevent pinching or short circuits when reassembling the locomotive.
8. **Test and Reassemble:** Before fully reassembling the locomotive, place it on a DCC-powered track and test all functions (motor, lights). If all functions operate correctly, carefully reattach the locomotive shell.

3. OPERATION

Once the Athearn HO DCC Adapter Board and a compatible DCC decoder are correctly installed, the locomotive will operate under Digital Command Control. The specific operational features (e.g., speed steps, lighting effects, sound functions) will depend entirely on the capabilities of the installed DCC decoder and your DCC system.

- **Address Programming:** Refer to your DCC decoder's manual for instructions on programming the locomotive's address and configuring its various CVs (Configuration Variables).
- **Function Control:** Use your DCC throttle to control the locomotive's speed, direction, and lighting functions as defined by the decoder's programming.

4. MAINTENANCE

The Athearn HO DCC Adapter Board itself requires minimal maintenance. Ensure that all connections remain secure and free from corrosion. Periodically inspect the board for any signs of damage or loose components.

- Keep the board clean and free of dust and debris.
- Avoid exposing the board to excessive moisture or extreme temperatures.
- If troubleshooting is required, always disconnect power before inspecting the board or making any adjustments.

5. TROUBLESHOOTING

If your locomotive does not operate correctly after installing the DCC adapter board and decoder, consider the following:

- **No Power/No Movement:**

- Verify track power connections to the adapter board (**RHTRK**, **LHTRK**).
- Ensure the DCC decoder is correctly seated in its socket.
- Check motor wire connections.
- Confirm the locomotive's address is correctly programmed in the DCC system.

- **Lights Not Working:**

- Check lighting wire connections to the adapter board (e.g., **FOF-P**, **FOF-N**, **BLU**).
- Verify that the lighting functions are enabled and correctly configured in the DCC decoder's CVs.
- Inspect the light bulbs or LEDs for damage.

- **Erratic Operation:**

- Ensure all soldered connections are clean and secure, without cold solder joints or shorts.
- Check for any stray wires or metal parts that could be causing a short circuit.
- Confirm the DCC decoder is compatible with the locomotive's motor type.

If issues persist, consult the specific DCC decoder's manual or contact Athearn customer support.

6. SPECIFICATIONS

Feature	Detail
Model Number	ATHG63868
Product Type	DCC Adapter Board
Scale	HO Scale
Compatibility	Athearn Genesis HO locomotives, standard 8-pin/9-pin DCC decoders
Dimensions	Approximately 3 x 2.7 x 0.51 inches (7.62 x 6.86 x 1.3 cm)
Weight	Approximately 0.32 ounces (9 grams)
Recommended Age	14 years and up (due to small parts and technical installation)

7. WARRANTY AND SUPPORT

For warranty information and technical support regarding the Athearn HO DCC Adapter Board Genesis ATHG63868, please refer to the official Athearn website or contact their customer service department directly. Keep your purchase receipt as proof of purchase.

Athearn Customer Service: Please visit www.athearn.com/support for contact details and further assistance.



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