



Econami Digital Sound Decoder
Diesel Quick Start Guide
Software Release 1.6**

** Previous software versions included

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All Aboard!

Overview

Congratulations on purchasing your SoundTraxx Econami Digital Sound Decoder for diesel locomotives! Econami is designed to further enhance your model railroading experience at an affordable cost. This quick start guide summarizes operating your decoder's default settings without adjusting CVs.

For details regarding installation and adjusting CV settings to customize operation, refer to the following documentation:

- The [Econami Installation Guide](#) provides step-by-step installation instructions and effective strategies to receive high-quality sound.
- The [Econami Diesel User's Guide](#) provides in-depth information regarding CV settings, customizing operation, and troubleshooting.
- The [Econami Diesel Technical Reference](#) offers a chronological list of all included CVs and details showing each adjustable setting.
- The [Econami Diesel Sound Selection Reference](#) document serves as a reference for adjusting sound effects.

To download all user documentation, visit www.soundtraxx.com/manuals.php.



Default Operation

Using Econami for Diesel

Your Econami has been preprogrammed so that you can activate various effects and features right away. This section addresses the automatic sound effects enabled by default and describes using function keys to activate the decoder's default functions.

Note: *Analog mode operation has been disabled to enable DCC as Econami's default power source. If only a DC power source is available, refer to the **Econami Diesel User's Guide** and **Econami Diesel Technical Reference** to enable analog mode.*

Automatic Sounds

Automatic sound effects will become active when the decoder receives power; the automatic sound effects enabled by default are defined below:

Auto-Start:	When the decoder first receives track power, the prime mover will start automatically and bring engine RPM to idle while the locomotive is stopped.
Auto-Notching:	Increasing the throttle setting from a stop will advance the engine RPM sound effect through eight RPM notches from idle (notch 1) to notch 8. Decreasing the throttle to zero will reduce engine RPM from notch 8 to idle.
Air Compressor:	When the prime mover is on, the air compressor sound effect simulates air pressure being maintained in the reservoir during operation. The pump cadence will revert to its most rapid setting every time you engage the coupler and every third time you apply the brake function.
Poppet Valve:	The sound of the poppet valve plays at random intervals in the background during operation.

Activating Functions

Select address 3 using your cab or command station, and refer to the following descriptions of each default function to activate effects.

Note: *Pressing function keys will toggle functions F0-F28 "on" or "off."*

F0: Headlight Backup Light	Turn on F0 in the forward direction to illuminate the headlight. Reverse direction to turn off the headlight and turn on the backup light. Turn off F0 to turn off the headlight/backup light.
F1: Bell	Turn on F1 to ring the bell. Turn off F1 to stop the bell from ringing.
F2: Airhorn	Turn on F2 to blow the airhorn. Turn off F2 to stop the airhorn blast.
F3: Short Airhorn	Press F3 to blow the "short" airhorn; the airhorn blast will be the same length every time you press the function key.
F4: Dynamic Brake	Turn on F4 to engage the dynamic brakes. Turn off F4 to release the dynamic brakes.
F5: RPM+	Each time you turn on F5, the engine RPM will be elevated one notch. When the prime mover is off, turning on F5 will issue the startup sequence and bring engine RPM to idle.

🇬🇧 Spirax valve replaces poppet valve in UK decoders.

🇬🇧 The bell and dynamic brake are disabled by default in UK decoders.

🇬🇧 The high-tone airhorn replaces the bell in UK decoders.

🇬🇧 The low-tone airhorn replaces the airhorn in UK decoders.

🇬🇧 The two-tone airhorn replaces the short airhorn in UK decoders.



Default Operation

F6: RPM-	Each time you turn on F6, the engine RPM will be reduced one notch. When at idle, turning on F6 will shut down the prime mover.
F7: Dimmer	Turn on F7 to dim all active lighting outputs. Turn off F7 to return all brightness levels to the prior settings.
F8: Mute	Turn on F8 to mute all sound effects. Turn off F8 to return all volume levels to the prior settings.
F9: Grade-Crossing Signal	Turn on F9 to issue a grade-crossing signal.
F10: Not Assigned	Refer to the <i>Econami Diesel User's Guide</i> to map an effect to F10.
F11: Brake Squeal Brake Release	Set the throttle to speed-step 1, and turn on F11 to apply the brakes. The brakes will squeal until you decelerate to a stop or turn off F11. Reduce the throttle to zero to stop the brakes from squealing. While stopped, turn off F11 to release the brakes before departing.
F12: Not Assigned	Refer to the <i>Econami Diesel User's Guide</i> to map an effect to F12.
F13: Coupler Coupler Release	Turn on F13 to engage the coupler. Turn off F13 to open the knuckle and separate the glad hands.
F14: Switching Mode	Turn on F14 to reduce the throttle setting by 50%. Turn off F14 to resume the prior speed step.
F15: Not Assigned	Refer to the <i>Econami Diesel User's Guide</i> to map an effect to F15.
F16: Not Assigned	Refer to the <i>Econami Diesel User's Guide</i> to map an effect to F16.
F17: Not Assigned	Refer to the <i>Econami Diesel User's Guide</i> to map an effect to F17.
F18: Not Assigned	Refer to the <i>Econami Diesel User's Guide</i> to map an effect to F18.
F19: Not Assigned	Refer to the <i>Econami Diesel User's Guide</i> to map an effect to F19.
F20: Not Assigned	Refer to the <i>Econami Diesel User's Guide</i> to map an effect to F20.
F21: Not Assigned	Refer to the <i>Econami Diesel User's Guide</i> to map an effect to F21.
F22: Not Assigned	Refer to the <i>Econami Diesel User's Guide</i> to map an effect to F22.
F23: "All Aboard!"/ Coach Doors*	Turn on F23 when the locomotive is stopped to issue the conductor's "all aboard!" announcement and close the coach doors.
F24: FX3 Lighting Output	Turn on F24 to illuminate FX3 lighting. Turn off F24 to turn off FX3.
F25: FX4 Lighting Output	Turn on F25 to illuminate FX4 lighting. Turn off F25 to turn off FX4.
F26: FX5 Lighting Output**	Turn on F26 to illuminate FX5 lighting. Turn off F26 to turn off FX5.
F27: FX6 Lighting Output**	Turn on F27 to illuminate FX6 lighting. Turn off F27 to turn off FX6.
F28: Not Assigned	Refer to the <i>Econami Diesel User's Guide</i> to map an effect to F28.

**Not supported with ECO-100 format

Direction Key: Pressing the direction key will reverse locomotive direction.

Emergency Stop Button: Pressing the emergency stop button will issue the emergency brake application sound effects and immediately bring your train to a stop.

* Not included in software releases prior to version 1.3



Customizing Econami

Summary of User-Adjustable Features

Econami is for users seeking a versatile decoder capable of simulating a range of prototypical scenarios. Although this quick start guide does not address configuring CVs, you can adjust the decoder's settings to fit an extensive variety of operating preferences. For instance, you can select from an array of prototype-specific sound effects, configure lighting effects and features, and customize motor control.

For all information regarding CV configuration, visit www.soundtraxx.com/manuals.php and refer to the *Econami Diesel User's Guide* and *Econami Diesel Technical Reference*.

You can adjust CVs to customize the following features and settings included in Econami, which supports Operations Mode and Service Mode programming:

- Selectable sound effects, including 16 airhorns, seven bells, five prime movers, two air compressors, and three couplers
- Auto-manual RPM notching control for prototypical operation
- Engine interlock for prototypical engine startup
- Adjustable auto-notching sensitivity for prototypical operation
- F11 braking for prototypical brake application with brake squeal sound effects
- Dynamic braking mode selections to alter the engine-RPM notch setting when the dynamic brake function is turned on
- Grade-Crossing Logic to automatically flash ditch lights and play the bell when issuing a grade-crossing signal
- Adjustable master volume level and individual sound effect volume levels
- Adjustable 7-band equalizer to optimize tone and speaker performance
- Up to six independent lighting outputs for Hyperlight effects and features, such as ditch lights, warning beacons, and brightness control
- Flex-Map function mapping technology for reassigning function keys F0-F28 to any effect, controlling the directionality of lighting outputs, configuring automatic effects, and mapping any effect to the emergency stop button
- Hyperdrive2 advanced motor control for refined low-speed operation
- Acceleration and deceleration momentum rate configuration for prototypical starting and stopping
- Linear (default), 3-point, and 28-point speed curve configurations for custom throttle control
- Primary ("short") and extended ("long") addressing to assign the locomotive's address from 1 to 9,999
- Advanced consisting to lash up multiple units and run them together
- DCC and DC (analog) operating modes

The bell and dynamic brake are disabled by default in UK decoders.

90-Day “Safety-Net” Service Warranty

All SoundTraxx Digital Sound Decoders are tested thoroughly during production and are warranted to be operational and free of manufacturing defects before shipment. However, in the event an error occurs during installation, SoundTraxx will cover the repair under the conditions of our Safety-Net Service Warranty. If you damage the Digital Sound Decoder or it fails to operate within the first ninety (90) days, SoundTraxx will repair or replace the product free-of-charge under the following conditions:

- A. The original sales receipt confirming purchase from an authorized SoundTraxx dealer must accompany the product. The date-of-purchase shown on the receipt must be within the last 90 days. SoundTraxx will return the original receipt with your repaired unit.
- B. The product must show no signs of damage of which resulted from unauthorized repairs or modifications. This includes, but is not limited to:
 - Removal of the shrink tubing from the decoder
 - Drilled or enlarged circuit board holes
 - A cut or trimmed circuit board
- C. The Digital Sound Decoder must be returned properly packaged and insured, with postage paid; SoundTraxx is not responsible for products lost or damaged in transit.

Limits of Liability

The foregoing shall constitute the sole and exclusive remedy of any owner of this product for breach of warranty including the implied warranties of merchantability and fitness. IN NO EVENT SHALL SOUNDTRAXX BE LIABLE FOR SPECIAL OR CONSEQUENTIAL DAMAGES OR FOR THE REPRESENTATIONS OF RETAIL SELLERS.

Visit www.soundtraxx.com/support to view complete warranty information.

Contacting Support

Our service department is available Monday-Friday, from 9am to 5:30pm (Mountain Time).

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