

Econami™

DIGITAL SOUND DECODER
BY SOUNDTRAXX®

ECO-PNP FOR DIESEL P.N. 882004

- 73.7mm x 16.8mm x 4.8mm
- 2A Motor Stall Current
- Over 40 Sound Effects
- 6 Outputs for 20 Hyperlight Effects
- Hyperdrive2 Advanced Motor Control
- Operates on DCC and DC Layouts

Warning!

This product contains a chemical known in the State of California to cause cancer, birth defects or other reproductive harm.

**THIS PRODUCT
IS NOT A TOY.**
Intended for use by those
ages 14 and older.

ALL ABOARD!

The Econami ECO-PNP Digital Sound Decoder (DSD) combines high-quality, digital onboard sound and the benefits of today's Digital Command Control (DCC) technology.

DECODER FEATURES

- Compatible with NMRA DCC Standards & RPs
- 28-function support, plus directional and E-Stop functions
- Flex-Map Function Mapping
- High-Quality 16-Bit Sound
- 6 Outputs with 20 Selectable Hyperlight Effects
- Hyperdrive2 Advanced Motor Control
- Standard, 3-Point, and User-Loadable Speed Curves
- Function-Activated Brake with Synchronized Sound Effect
- 7-Band Equalizer

SPECIFICATIONS

Motor Stall Current: 2A Maximum
Function Current: 100mA each
Audio Amplifier: 2W, 8-Ohm Load
DCC Track Voltage: 7.5V - 22V

40+ Sound Effects:

5 Prime Movers: EMD 567, 645T, and 710T; GE FDL-16; ALCO 244; Startup, Shutdown, and Exhaust through 8 Notches, 16 Airhorns, 7 Bells, 2 Compressors, 3 Couplers, Dynamic Brake, Radiator Fans, and more!



Scan the code with your mobile device for sound samples and more product information.

NOTICE TO USERS

Use of this product is subject to a license agreement available for review at www.soundtraxx.com. Breaking the seal of this package indicates your acceptance of the license terms.



FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. Complete compliance statements can be found in the Econami User's Guide.



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FUNCTION ASSIGNMENTS

F0 = Headlight/Backup Light
F1 = Bell
F2 = Airhorn
F3 = Short Airhorn
F4 = Dynamic Brake
F5 = RPM+/Engine Startup
F6 = RPM-/Engine Shutdown
F7 = Dimmer
F8 = Mute
F9 = Grade-Crossing Signal

F11 = Brake Squeal/Release
F13 = Couple/Uncouple/
Glad Hand Release
F14 = Switching Mode
F23 = "All Aboard!"/Coach Doors
F24 = FX3 Function Output
F25 = FX4 Function Output
F26 = FX5 Function Output
F27 = FX6 Function Output

E-Stop = Emergency Brake Application

Note: Our Flex-Map technology allows mapping any function to any function key, making it easy to match function assignments with any prior generation SoundTraxx Digital Sound Decoder.

Complete service and warranty information is available in the "Support" section of our website.

NEED HELP? START HERE!

The complete *Econami Owner's Manual* is available in the "Manuals" section at www.soundtraxx.com. This manual includes an *Installation Guide*, *Quick Start Guide*, *User's Guide*, and *Technical Reference*.

INSTALLATION AND WIRING

WARNING! Before starting the installation, isolate both motor terminals by disconnecting all electrical connections to each motor terminal, and ensure that there are no short circuits. Failure to do so will damage the Econami and void your warranty.

The ECO-PNP is designed to operate between 7.5V and 22V. Exceeding 27V will permanently damage the decoder.

Do not drill out holes or pads in the circuit board; this will void your warranty.

Lighting Outputs

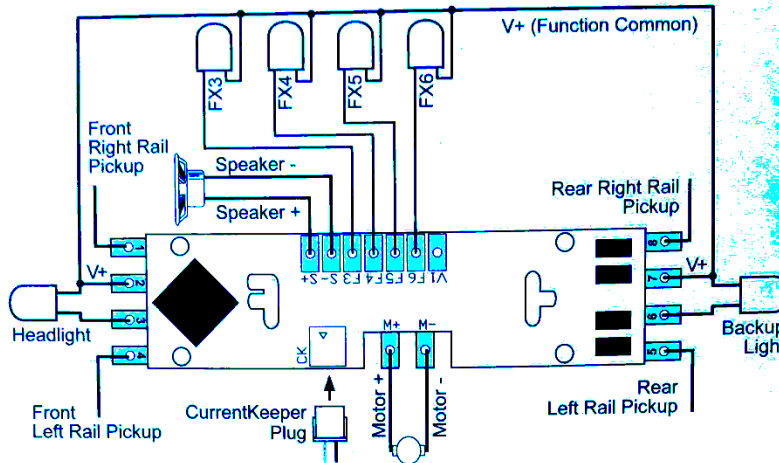
The six function lighting outputs are rated for 100mA each. **Do not exceed this current rating!** Be sure that the combined current of all lights and the motor stall current does not exceed 2A.

Speaker Selection and Installation

Speaker placement and proper baffling are critical to getting great sound from your Econami. Face one side of the speaker toward openings in the body shell or chassis and use an airtight baffle on the other side so that sound is directed outward from the model. The ECO-PNP will provide the best results when paired with a speaker rated between 1 and 2 watts.

For more information, refer to the "Manuals" section of our website.





For 1.5V incandescent bulbs, connect the headlight leads to the 1.5V Common terminal (V1) and terminal 3. Connect the backup light leads to (V1) and terminal 6. See the website for a complete wiring diagram.

The ECO-PNP includes a quick-plug for an optional CurrentKeeper (P.N. 810140) to maintain performance during momentary power losses.

PROGRAMMING AND READING CVS

These tables list common CVs, as well as values for setting the prime mover and airhorn. Refer to the *Econami Diesel Technical Reference* for a complete list of CVs and values. Default values are **BOLD**.

Econami does not require a programming track booster.

Common CVs

CV	Name	Range	CV	Name	Range
1	Primary Address	1-127	17, 18	Extended Address	0001-9999
2	Vstart	0-255	29	Configuration Data 1	0-255
3	Acceleration	0-255	122	Bell Select	0-21
4	Deceleration	0-255	128	Master Volume	0-255
5	Vhigh	0-255	129	Airhorn Volume	0-255
6	Vmid	0-255	130	Bell Volume	0-255
8	Default Reset	8	131	Prime Mover Volume	0-255

Prime Mover Select: CV 123

Prime Mover	Value	Prime Mover	Value
EMD 567 (non-turbo)	0	GE FDL-16	3
EMD 645 (turbo)	1	ALCO 244	4
EMD 710 (turbo)	2		

Primary Airhorn Select: CV 120

Airhorn	Value	Airhorn	Value
Nathan K5LA	0	Wabco A2	8
Nathan K5LLA	1	Holden M3H	9
Nathan K5HL	2	Holden K5H	10
Nathan P5	3	Leslie A200	11
Nathan P3	4	Leslie A125	12
Nathan M5	5	Leslie A125/A200 Combo	13
Nathan M3	6	Leslie S3L	14
Wabco E2	7	Leslie S2M	15