XL Systems Inc

14 Dora Ln Holmdel, NJ 07733
HO Steam Sound Only Decoder
Item #0001908

Thank you for purchasing our advanced DCC diesel 16 bit sound only decoder. Combined with any non-sound power decoder installed in your locomotive, and used with your favorite DCC System, our new sound only decoder will make your model locomotive come to life.

- Easy installation - two wire only
- 20 types of synchronized chuff (10 single and 10 double) with random associated locomotive sounds
- 28 functions (F1 - F28)
- 2 or 4-digit (1-9999) addressing
- Programmable 14, 28, 128 speed steps
- Programmable acceleration rate, deceleration rate
- Programmable user selectable 17 whistles and 7 bells
- Programmable individual sound volumes (64-levels)
- Programmable master sound volumes (64-levels)
- Supports advanced consisting (CV19)
- Supports programming on the main(OPS mode)
- Compatible with NMRA DCC standards
- Complies with the part 15 of FCC
- Speaker included
- Dimensions: 17.4mm x 17.4mm x 4.0mm

INSTALLATION

Since there is no motor output in this sound decoder, it can be used in any locomotive, regardless of scale that already has a working power decoder installed. If used in large scales where track voltage exceeds 16 volts, (O/G scales), a special voltage reducer is required to be used in-line to the Sounder. Contact Model Rectifier Corp. for details and price. To install the Sounder into a locomotive, simply solder the red and black wires to any power pick up points, left and right side wheel pick ups, along with the red and black wires of your power decoder. If using with higher voltage DCC applications for larger scales, solder the MRC voltage reducer to either the red or black wire between the Sounder, and the power pick up point. You should have some basic electrical knowledge and soldering skills. If you do not have the above requirements, please ask the dealer for help with the installation.

Note- Instead of using CV3 and CV4, the decoder uses CV120 and CV121 as acceleration and deceleration rates. So you can change its acceleration and deceleration rates without changing CV3 or CV4 in your power decoder, if you already have these rates tailored for your locomotives optimum performance.

SPEAKER SELECTION

The "XL Sounder" steam sound only decoder comes with a 28mm round 8-ohm speaker. If it is too large for your application, smaller speakers, 20mm, or 16 X 35mm rectangular, can be purchased from XL, or other manufacturers. Reducing speaker size will affect the overall sound quality of this decoder. Placement of the speaker inside the locomotive is up to you. Use hot glue or double-sided sticky tape to affix the speaker inside the locomotive shell.

OPERATION

There are 17 whistles sounds and 7 bell sounds, along with an "off" setting for each built into this decoder for you to choose from. See programming chart for selecting the type you want. The "off" setting is useful for trailing locomotives in a consist so only the lead unit sounds its whistle and bell. You can use F18 functions to change the type of bell sound, and use F19 to select horn sound,

Note: If you activate the bell sound, F1, while either the Rail-Wheel Clack sounds are activated, the Bell sound will override the other two sounds.

ADDRESS PROGRAMMING:

The "Sounder" comes with a factory default address of #3, and 28 speed steps. If your locomotive has a different address, and speed step already programmed into it, place the locomotive, with decoder and Sounder installed, on your program track and reprogram it to the address you had originally programmed it to. While it is on the program track, also reprogram the locomotive to the speed step of your choice, (14-28/128). Since the decoder does not have a motor driver, you can't read back its CV.

ADDITIONAL INFORMATION:

The Sounder synchronized steam chuff sound only decoder should perform well when used with other brand command systems, and decoders. See your DCC command stations manual to learn how to program and operate any decoder. For more information about register/CVs and their functions, please refer to the NMRA DCC Standard & Recommended practices, RP-9.2.2 available directly from the NMRA or their website at www.nmra.org.

TROUBLE SHOOTING:

This decoder should perform well with all DCC systems. The maximum DCC output should be less than 15 V. If the locomotive does not respond to commands, it may have lost its address. Please reprogram the address and program CV19 to 0 (disable consist). If it responds slowly, you should clear its momentum by reprogramming CV120 and CV121 to zero. You should also clean the track to improve electrical pickup. Read your DCC system manual to learn how to program and operate the decoder. Whenever the decoder doesn't work please use the program track to program CV# 125 with value 1 to restore the decoder to factory settings. This should bring the decoder to life with address #3.

RETURN PROCEDURE:

This decoder carries a 6 month warranty against factory defects. This warranty does not include abuse, misuse, neglect, improper installation, or any modifications made to this decoder. If it should become necessary to return the decoder for warranty repair/replacement, please include a copy of the original sales receipt. Please include a letter (printed clearly) with your name, address, daytime phone number, and a detailed description of the problem you are experiencing. Please also include a check or a money order for $8.00 to cover return shipping and handling. If the decoder is no longer considered under warranty, then please include a check or a money order for $12.00 to cover the cost of repair or replacement and return shipping and handling.

Send the decoder to:
XL Systems Inc
14 Dora Ln
Holmdel, NJ 07733
Email: linzping@gmail.com

FUNCTION CHARTER:

Function	Idel/Moving
F1	Bell on/off
F2	Whistle
F3	Air release
F4	Coupling 1
F5	Brake release / brake squeal
F6	Chuff sound on/off -all other sounds on
F7	Air hose firing/uncoupling lever
F8	Water injector
F9	Metal crank sound on/off (moving), steam associated sound (idle)
F10	Water filling
F11	Blow er hiss
F12	All sounds on/off
F13	Master volume reduce by 1 / air release
F14	Master volume increase by 1 / air release
F15	Flange noise
F16	Shoveling
F17	Coal auger
F18	Change bell type (8 types plus off)
F19	Whistle type select (total 17 different horns)
F20	Air hose firing/uncoupling lever
F21	Flange noise
F22	Associated loco sound
F23	Flange noise
F24	Chuff type select
F25	Long air release
F26	Sand droppin
F27	Associated loco soun
F28	Associated loco soun

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CV CHARTER

CV CHARTER

CV	Description	Range	Default
CV1	Short address	1-127	3
CV29	Basic configuration		2
CV7	Manufacturer version number		32
CV8	Manufacturer ID		143
CV17	Long address upper byte	192-231	192
CV18	Long address lower byte	0-255	3
CV19	Advanced consist address	0-127	0
CV21	When CV21=0, all accessory function will follow its own address. When CV21=1, all functions will follow the consist address	0-1	0
CV49	Master volume control	0-63	63
CV50	Whistle type	0-13	5
CV51	Whistle volume	0-63	55
CV52	Bell type	0-3	0
CV53	Bell volume	0-63	55
CV54	Bell ring rate	0-50	10
CV55	Chuff type	0-10	0
CV56	Chuff volume	0-63	55
CV57	Brake squeal volume	0-63	55
CV58	Air release volume	0-63	55
CV59	Blower hiss volume	0-63	55
CV60	Fire box door volume	0-63	55
CV61	Injector volume	0-63	55
CV62	Coupling volume	0-63	55
CV63	Air pump volume	0-63	55
CV112	metal crank volume	0-63	55
CV115	Auto brake squeal enable/disable	0-1	1(enable)
CV116	Sand drop volume	0-63	55
CV117	chuff rate		
CV118	Shoveling volume	0-3	0
CV119	Coal volume		
CV120	Acceleration	0-255	255
CV121	Deceleration	0-255	255
CV122	Double chuff enable	0-1	0
CV123	Safty valve type	0-2	0
CV122	Chuff start point	0-7	0
CV125	Program it to1 will restore some the CV to factory default settng		0