MRC SOUNDER™
Steam Sound Decoder with 28 Accessory Functions

Item 0001908
Thank you for purchasing our highly advanced DCC Steam sound only decoder. Combined with any non-sound power decoder installed in your locomotive, and used with your favorite DCC System, our new 16 bit sound only decoder with “Carnegie Hall” sound quality 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
- 28mm speaker included
- Dimensions: 17.4mm x 17.4mm x 4.0mm

Address Programming
The “MRC 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 MRC Sounder installed, on your program track and re-program it to the address you had originally programmed it to. While it is on the program track, also re-program 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 MRC Sounder synchronized diesel 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.

FCC Compliance
This device complies with part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

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, including but not limited to the removal of the NMRA plug if applicable. 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. Be certain to return the decoder only.

Any questions regarding Warranty Policy can be directed to our Customer Service Department by calling 732-225-6360 between the hours of 8:30am and 6:00pm EST, or by emailing: rrtech@modelrectifier.com

Send the decoder to:
Model Rectifier Corporation
Attn: Parts & Service
80 Newfield Avenue
Edison, NJ 08837-3817 U.S.A

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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.

SPEAKER SELECTION
The "MRC 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 MRC, 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.

| Function | F1 Bell on/off | F2 Whistle | F3 Long air release | F4 Coupling | F5 Brake squeal (moving), brake release (idle) | F6 Chuff sound on/off - all other sounds on | F7 Firebox open/close | F8 Water injector | F9 Metal crank sound on/off | F10 Water filling | F11 Blower hiss | F12 Chuff type select | F13 Long air release | F14 Sand dropping | F15 Associated loco sound | F16 Coal auger | F17 Coal volume | F18 Debech cough | F19 Associated loco sound | 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 dropping | F27 Associated loco sound | F28 Associated loco sound |
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TROUBLESHOOTING
This decoder should perform well with all DCC systems. The maximum DCC output should be less than 15 V. If the locomotive does not perform as expected, please contact the manufacturer for service. If the decoder does not work properly, you should check the following:

1. Ensure the decoder is correctly installed and connected to the power pick up points.
2. Check the power decoder settings to ensure compatibility with the decoder's requirements.
3. Verify the decoder's address is correctly set within the locomotive's memory.
4. Confirm that the decoder's programming settings are correctly configured.

For more information about programming and operating your decoder, refer to the manufacturer's user manual or visit their website at www.mrcsounder.com. Whenever the decoder doesn't work properly, please refer to the NMRA DCC Standard & Recommended Practices, RP-9.2.2. This is available directly from the NMRA or their website at www.nmra.org.