



2009 Massoth eMOTION Decoder Summary

The eMOTION Decoders are unique and versatile new technology decoders for controlling motors, lights, sound and 8 other functions with analog, DCC (NMRA standards) or LGB MTS power. The 4 sizes have a common set of features designed specifically for G-Scale model-railroading and the LGB enthusiast using MTZ/MTS or analog legacy systems.

Visit the Shourt Line where every Massoth item is discounted everyday day. Call [310-622-4431](tel:310-622-4431) or email info@shourtline.com on the web at www.ShourtLine.com open 9 to 9 PST everyday



M decoder \$66.06, for small and very small locos, 1.8 Amps (30 mm x15 mm x 6 mm), 1.2 motor amps, 1.0 function amps, (2) front light hook-ups, (2) 600 mA function outputs, (3) 50 mA function outputs, (1) RC servo control channel - [Manual](#)



L decoder \$87.24, replacement for LGB 55021, with more power - 2.5 Amps (55 mm x 25 mm x 14 mm), 1.8 motor amps, 1.0 function amps, (2) front light hook-ups, (2) 600 mA function outputs, (4) 50 mA function outputs, (1) RC servo control channel - [Manual](#)



LS- decoder \$ 211.79 **L** decoder + **Sound** >12 original LGB digital sounds, free loco sound library >50 sounds AND includes wiring with mini-plugs - [Manual](#)



XL decoder \$97.31 , the workhorse, excellent for LGB Locomotives with 2 motors, 4 Amps (50 mm x 32 mm x 12 mm), 3.5 motor amps, 1.3 function amps, (3) front light hook-ups, (6) 600 mA function outputs, (-) 50 mA function outputs, (1) RC servo control channel - [Manual](#)



XLS decoder \$289.95 **XL** decoder + **Sound** >12 original LGB digital sounds, free loco sound library >50 sounds AND includes a Massoth speaker for your type loco + wiring - [Manual](#)



XXL decoder \$144.80, the Big Boy with 6-10 Amps Designed to serve in third-brand locomotives like Aristocraft, Bachmann, USA-Trains and other amp eaters. (55 mm x 32 mm x 20 mm), 6-10 motor amps, 1.3 function amps, (3) front light hook-ups, (6) 600 mA function outputs, (-) 50 mA function outputs, (1) RC servo control channel - [Manual](#)

When ordering a LS or XLS sound decoder be sure to choose the sound you want from the price list link shown below or [click here](#) to choose from over 50 free loco sounds; you can hear the sounds by clicking on the speaker icon or view a loco's photo by clicking its name.

[Click here to view or download our complete Shourt Line & Massoth discount product price list](#)

Shourt Line Model Railroad Products
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web: www.ShourtLine.com email: info@ShourtLine.com

ALL eMOTION driving decoders have these common features:

- Fully compatible to NMRA-DCC & LGB MTS standards and requirements
- Work in analog mode, too
- Backward compatible with LGB MTS I , II , and III
- Decoders run with 14 or 28 or 128 speed steps. They automatically will recognize 128 speed steps when set to 28 speed steps.
- Can be programmed from 1 to 10239 loco addresses, addresses 128-10239 will require additional programming.
- Each loco can be programmed to an individual speed characteristic (programmable speed curve)
- Simplified individual speed characteristics including starting speed, mid speed, and max speed (speed characteristics defined in 3 points)
- Newest technology in Back EMF for precise slow speed operation
- Adjustable motor frequency ranging from 70 Hz to 16 kHz by programming VC value
- Automatic operation-mode detection allows for switching analog-mode-of operation on or off. When switched to “analog off” decoder will only run in digital mode – this allows station stops using signal switches while sound, smoke, and lights continue to operate – No central station commands required
- Can process either serial or parallel functions
- Decoders operate LGB sound modules # 650xx and up
- Light and function outputs dimmable – in analog and in digital mode-of-operation
- Programmable flashing light / timer / pulse generator output-functions
- Switching speed available without programming
- Overload protection for motor output and function output
- Overheat protection for motor output and function output
- Built-in connection for power buffers
- Programming (CV-Read, CV-Write, CV- bitwise, CV-indirect, PoM)
- Reset function for all CV values
- Best warranty in the industry (according to our customers)

The M – decoder locos e.g.: Feldbahn, Dresine = hand car, motor cycle, Flyer, Industrial field loco, Porter, 0-Gauge Gauge 1 and H0

The L- decoder locos e.g.: LGB 2X600 , LGB 2X21, LGB 2X900 and all single motor locos with #55021 interface.

The XL decoder locos e.g.: LGB Mogul, Genesis, GG1, F7, Crocodile, Alco Diesel, Uintah, Mallet, and many more

The XXL decoder locos e.g.: Bachmann G-Scale locos, the Big Boy, USA Trains locos, Kiss locos, Aristocraft locos, Accucraft cast iron locos

All decoders are in stock and ship within 24 hours

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