

XL SYSTEMS INC

14 Dora Ln Holmdel, NJ 07733

Item #0001955

N Diesel DCC Decoder for Atlas GP7, GP9, GP30, GP35...

- Two diesel prime movers with randomly associated locomotive sounds
- User selectable 22 different horns and 8 bells
- 28 accessory functions allowing more sound control than ever
- Programmable individual sound volumes
- 1.0 amp capacity
- Programmable for either 2-digit (1-127) or 4-digit (1-9999) addresses
- Programmable start voltage
- Programmable acceleration rate
- Programmable deceleration rate
- Programmable top voltage
- Programmable 14, 28, 128 speed steps
- Selectable factory default speed curve
- Supports advanced consisting (CV19)
- Supports programming on the main (OPS mode)
- Compatible with NMRA DCC standards
- Complies with Part 15 of FCC
- Speaker included

INSTALLATION: Disassemble loco and tape the frame around the motor spring contact as Fig1 indicates. The motor spring contact should not touch the frame. The decoder replaces the original circuit board of the locomotive and should fit in the same location. Assemble one half of the frame first, installing the decoder, motor, driveshafts, bearings, trucks, and frame spacers. Gently place the other frame half on top of the completed half, checking clearances and if there is any binding of the drive mechanism. Correct any trouble spots at this point. Also check to make sure the motor brush tabs are not touching the frame halves and the clear tape is correctly positioned at the motor brush tab points to avoid shorting out the decoder. Now you can install the insulated bolts and nuts to secure both frame halves together. Apply tape on the chassis under the speaker to prevent the speaker from touching the chassis.

DCC OPERATION: The decoder has been factory programmed with address #3, 28/128 speed steps and maximum top voltage. This decoder has start up and shut down feature. You must press any function key to start up the engine before operating the loco. To shut down the engine you must bring the loco to idle and then press F8 3 times. Please refer to the CV Chart to explore other features of the decoder.

TROUBLE SHOOTING: 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. This decoder should perform well with all DCC systems.

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 letter 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 \$10.00 to cover return shipping and handling. If the decoder is no longer considered under warranty, then please contact XL Systems for a price quote to cover the cost of repair or replacement of the decoder, and return shipping and handling. Customers outside the continental United States, including; Hawaii, Alaska, Canada and Mexico, have to contact us for exact return shipping rates for both warranty and non-warranty repairs.

Contact to us at linzping@gmail.com.

Send the decoder to: XL SYSTEMS INC. 14 DORA LANE HOLMDEL, NJ 07733

FUNCTION CHARTER

Function	Idle/Moving
F1	Bell on/off
F2	Horn
F3	Air release
F4	Coupling 1
F5	Brake release / brake squeal
F6	Dynamic brake on/off
F7	Air hose firing/uncoupling lever
F8	Click 3 times will shut down when in idle/Manual notch down
F9	Engine cooling fan / Manual notch up
F10	Rail wheel clack (only moving)
F11	Traction air compressor
F12	Change prime diesel rumble type (CV123, 2 types)
F13	Short air release
F14	Coupler crash
F15	Air compressor
F16	Flange squeal
F17	Air release
F18	Change bell type (8 types plus off)
F19	Horn type select (total 22 different horns plus off)
F20	Associated loco sound
F21	Change bell volume and turn on the bell
F22	Change horn volume
F23	Change diesel rumble volume
F24	Safety valve pop
F25	Air release
F26	Flange noise
F27	Sand drop
F28	Air release

CV CHARTER

CV#	Description	Range	Default
CV1	Short address	1-127	3
CV2	Start voltage	0-32	10
CV3	Acceleration	0-32	0
CV4	Deceleration	0-32	0
CV5	Top voltage	0-32	32
CV29	Basic configuration		2
CV19	Advanced consist address	0-127	0
CV21	CV21=0, all accessory functions follow its own address. When CV21=1, all functions will follow the consist address		
CV49	odd number sound on, even number sound off	0	0
CV50	Horn type (22 types plus off, 22=off)	0-22	13
CV51	Horn volume	0-15	15
CV52	Bell type (8 types plus off, 8=off)	0-7	5
CV53	Bell volume	0-15	15
CV54	Bell ring rate	0-50	3
CV55	Diesel rumble volume	0-15	12
CV56	Brake squeal volume	0-15	12
CV57	Dynamic brake volume	0-15	12
CV58	Air release volume	0-15	12
CV59	Air pump volume	0-15	12
CV60	Safety pop valve volume	0-15	12
CV61	Engine cooling fan volume	0-15	12
CV62	Coupling volume	0-15	12
CV63	Sound release volume	0-15	12
CV64	Rail wheel clack	0-15	12
CV65	Kick start voltage	0-63	63
CV67-94	28 speed steps table while CV29.4=1	1-255	
CV112	Air compressor volume	0-15	12
CV113	Coupling fire volume	0-15	12
CV114	Brake release volume	0-15	12
CV115	Auto brake squeal enable/disable	0-1	1
CV116	Flange volume	0-15	0
CV122	Diesel notch mode, 0=auto notch 3=manual notch	0-3	0
CV123	Diesel prime mover select	0-2	0
CV125	Program to "1" will restore some CV's to factory settings		0

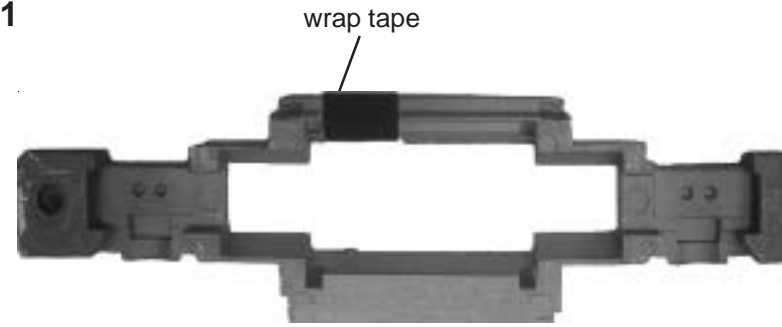
SPEED TABLE CV67-CV94 FOR 28 SPEED STEPS

When CV29's bit 4 is set to "1" it will use the speed table formed by CV67-CV94 to control speed (motor voltage). It allows you to setup each speed for all 28 speed steps. First, program CV29 to 18 for short addresses (1-127) or program CV29 to 50 for long addresses (128-9999) to enable speed table control. Then select throttle to 28 speed steps and run your loco at speed step 1. Use program

CV on the main to change CV67's value (1-255) to adjust step 1's speed. The kick voltage, CV65 is only applied when the speed step changes from 0 to 1. You should switch between 0 to 1 many times to check step 1's speed. When done with CV67, select speed step 2 and program CV68. CV68's value must be greater than CV67's. When done with CV67-CV94, use read back CV to make sure their values are in increasing order.

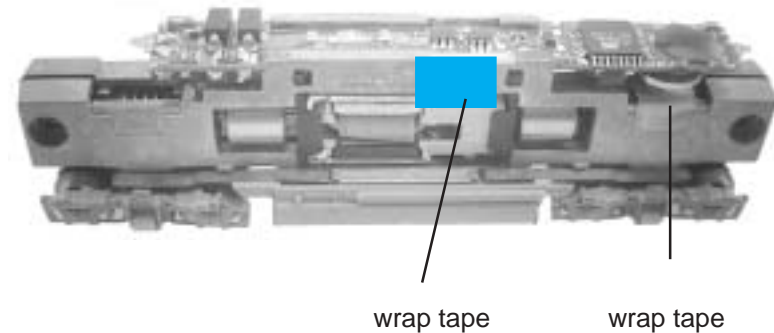
Note: When using MRC Prodigy DCC to program addresses it will automatically disable the speed table (set CV29's bit 4 to "0"). Programming CV125 to 1 will also disable the speed table and re-program CV67-CV94 to a default linear speed setting.

Fig 1



wrap tape the whole notch with tape to prevent the motor's spring contact from touching the chassis. Otherwise the decoder will be destroyed if the motor contact touches unwrapped part of chassis

Fig 2



FCC COMPLIANCE

This device complies with part 15 of the 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.

About US

XL Systems Inc has designed and manufactured model rail road products for MRC for more than 20 years. All MRC DCC products are made by XL Systems Inc. All our DCC products are compatible to MRC DCC products. We will introduce more new products to meet customer's beget. We also provide installation and special programming and modification for customer. If you have special needs please contact to us at: linzping@gmail.com or maxiulandcc@gmail.com. You also buy directly from XL to get more saving.