

Instructions for Australian Steam Sound Projects

with *MAXI CHUFF™* for Zimo decoders

Wire function	Wire colour
Motor +	Orange
Motor -	Grey
Electrical pick up right wheels	Red
Electrical pick up left wheels	Black
Forward lights	White
Reverse lights	Yellow
Common +12v supply for outputs	Blue
Speaker +	Purple
Speaker -	Purple
Storage capacitor +	Blue (opposite end from wire loom)
Storage capacitor -	Grey (opposite end from wire loom)
Function output 1	Green
Function output 2	Brown

To adjust the chuff rate

1. Adjust chuff rate at medium speed use CV 267. The larger the value, the slower the chuff rate.
2. Adjust chuff rate at slow speed use CV 354. Values below 128 produce a faster chuff rate. Values above 128 produce a slower chuff rate.

To adjust the back EMF value use CV 58. Set to 255 for shunting or models with slight mechanical binds. Set value between 100-150 for double heading.

Warning: Maximum recommended overall volume CV 266 = 65 for 0.7W 8 Ohm speaker when used in a 3W decoder. Sound volume will vary depending on type of speaker used and mounting location and orientation. Sound volumes are pre-set but can be changed using the CV's listed below. Note: Default volumes may vary from those in this list.

See Zimo manuals and CV list for extra features.

Output 1 is mapped for independently wired front red marker lamps

Output 2 is mapped for independently wired rear red marker lamps.

Output 3 is mapped for independently wired front white marker lamps

Output 4 is mapped for independently wired rear white marker lamps.

Note: LED's need resistors in series with the output. A 1K Ohm value is suitable for very bright headlights. A 2K2 Ohm or larger value is suitable for marker lights.

Function	Sound	Function Output	Volume adjustment (1-255)
F0	Generator	Headlight 0 forward 0 reverse	Volume CV 571 = [181]
F1	Guards whistle		Volume CV 514 = [128]
F2	Locomotive whistle (variable)		Volume CV 517 = [255]
F3	3 short locomotive whistles		Volume CV 520 = [255]
F4	Drain cocks		Volume CV 584 = [128]
F5	Uncouple/shunt (momentum off)	5	Volume CV 526 [23]
F6	<i>MAXI CHUFF™</i>		
F7		Headlight high beam	
F8	Sound On/Off		
F9	Opening and closing tender hatch		Volume CV 532 = [91]
F10	Wheel slip		Volume CV 541 = [255]
F11	Generator	White markers loco +train 3 forward 4 reverse	Volume CV 544 = [181]
F12	Generator	Light engine markers 2+3 forward 1+4 reverse	Volume CV 547 = [181]
F13	Generator	Shunting markers red 1+2 both directions	Volume CV 550 = [181]
F15	Decrease overall volume		
F16	Increase overall volume		Max = 60
Z1	Compressor	Sound after stopping	Volume CV 745 = [64]
Z2	Compressor	Random sound drive	Volume CV 748 = [64]
Z3	Injector	Random sound drive	Volume CV 751 = [32]
Z4	Shovelling coal	Random sound drive	Volume CV 754 [32]
Z5	Safety valve blowing off	Random sound drive	Volume CV 757 [128]
Direction	Air release noise / clank		Volume CV 576 [23]
	Brake noise		Volume CV 578 [46]

Zimo manuals can be found at the following links.

http://www.zimo.at/web2010/documents/MX-small-decoders_EN.pdf

http://www.zimo.at/web2010/documents/MS-Sound-Decoders_EN.pdf