Denver & Rio Grande Western C-19

16Bit

B&O Museum

Prototype information

The 2-6-6-6 is an articulated locomotive type with two leading wheels, two sets of six driving wheels and six trailing wheels. Only two classes of the 2-6-6-6 type were built. One was the "Allegheny" class, built by the Lima Locomotive Works. The name comes from the locomotive's first service with the Chesapeake and Ohio Railway beginning in 1941, where it was used to haul loaded coal trains over the Allegheny Mountains. The other was the "Blue Ridge" class for the Virginian Railway. These were some of the most powerful reciprocating steam locomotives ever built, at 7,500 HP (which was only exceeded by the PRR Q2), and one of the heaviest at 386 tons for the locomotive itself plus 215 tons for the loaded tender.

Source: Wikipedia

Sound project information

All sound recordings are taken from historical sources.

The sound operates both the thundering dual chuff highball and the light coasting on flat areas. Use function key F15 to switch between the two modes.

The sound project is based on Zimo Advanced Standard.

The decoder must have SW Version 39.10 or higher.

The sound project is designed for the new 16 Bit Zimo MS decoders. A version für the elder MX line is also available.

FA 7 and servo1 can operate several electric couplers. The Kadee electric coupler can simply plug in to servo connector 1 and 2.
With servo 4 the reversing gear at the side rods can moved to the prototype like position fwd and rwd

CVs 3, 4, 5 and 57 are important values for the sound project. Please change values very carefully! Please limit the topspeed only with CV 57

The function number is by default the same as function key. With the Zimo function key mapping, the complete function are easy changeable to another key.
Program the desired key number as your value in the CV 400+Fu number and the whole function is mapped to another key. Please take care, you can map multiple functions to one only key!

Key Functions

F0: Light on FA0v bei Vw + FA0r bei Rw + Generator ein + Standsieden
F1: Airbellringer_16.wav
F2: Whistle Allegheny Highway.wav + FA1 + FA2
F3: Whistle Allegheny lang.wav
F4: Whistle Allegheny short.wav
F5: Cablight FA5 + Generator ein
F6: Steamheater FA6
F7: Cyl Blow Down ein/aus
F8: User Sounds ein/aus + Generator ein + Standsieden + Start Whistle
F9:
F10:
F11: coupler close_16.wav
F12: coupler open.wav + FA7 + Servo1 + Servo2
F13: Waterfill.wav
F14: Westinghouse 2 dual fast_16.wav
F15: Set + 1
F16: Mute wenn ein
F17: Injector1_16.wav
F18: Pop Valve_16.wav
F19:
F20:
F21:
F22: Generator ein
F23: Generator ein
F24:
F25:
F26: Start Whistle
F27: Vol- (CV396)
F28: Vol+ (CV397)

Random Sounds

Z1: Westinghaus dual fast
Z2: Westinghous slow
Z3: Blower
Z4: Injector
Z5: Pop Valve

Changing CVs values used by the reset

CV# 3 = 55 Acceleration rate
CV# 4 = 25 Deceleration rate
CV# 35 = 0 Function mapp. F1
CV# 36 = 12 Function mapp. F2
CV# 37 = 0 Function mapp. F3
CV# 38 = 0 Function mapp. F4
CV# 41 = 0 Function mapp. F7
CV# 42 = 0 Function mapp. F8
CV# 43 = 0 Function mapp. F9
CV# 44 = 0 Function mapp. F10
CV# 45 = 0 Function mapp. F11
CV# 46 = 4 Function mapp. F12
CV# 47 = 16 n.a.
CV# 48 = 32 n.a.
CV# 57 = 110 Motor regulation: voltage reference
CV# 60 = 60 Dimming general
CV# 65 = 0 Sub-Vers. Number
CV# 114 = 127 Dim Mask FO0-FO6
CV# 115 = 66 Uncoupler control
CV# 116 = 145 Automatic uncouple
CV# 132 = 72 Effects F6
CV# 137 = 153 Smoke generator at standstill
CV# 138 = 204 Smoke generator at cruising speed
CV# 139 = 255 Smoke generator at accelaration
CV# 154 = 146 ZIMO configuration bits 2 (binary)
CV# 159 = 48 Effects F7
CV# 160 = 8 Effects F8
CV# 163 = 255 Servo 1 right stop
CV# 167 = 255 Servo 2 right stop
CV# 181 = 12 Servo 1 - Function Assignment
CV# 182 = 12 Servo 2 - Function Assignment
CV# 184 = 204 Servo 4 - Function Assignment
CV# 269 = 20 Steam, accented lead-chuff
CV# 272 = 100 Drainage time
CV# 273 = 15 Starting delay
CV# 274 = 100 min. drainage downtime [0.1s]
CV# 275 = 80 Volume with no load slow travel
CV# 276 = 120 Volume with no load speed run
CV# 277 = 50 Volume load dependent
CV# 281 = 2 Threshold for full acceleration sound
CV# 283 = 181 volume at full acceleration
CV# 284 = 2 Threshold for noise reduction in delay
CV# 286 = 70 Volume reduced driving noise during deceleration
CV# 307 = 128 cornering squeal inputs
CV# 308 = 9 cornering squeal key
CV# 312 = 7 Drainage button
CV# 313 = 116 Mute button
CV# 314 = 25 Mute fade time
CV# 315 = 150 Random Z1 min interval
CV# 316 = 200 Random Z1 max interval
CV# 317 = 20 Random generator Z1 playback time
CV# 319 = 80 Random Z2 max interval
CV# 320 = 28 Random generator Z2 playback time
CV# 321 = 100 Random Z3 min interval
CV# 322 = 100 Random Z3 max interval
CV# 323 = 10 Random generator Z3 playback time
CV# 324 = 110 Random Z4 min interval
CV# 325 = 160 Random Z4 max interval
CV# 326 = 14 Random generator Z4 playback time
CV# 327 = 255 Random Z5 min interval
CV# 328 = 255 Random Z5 max interval
CV# 329 = 12 Random generator Z5 playback time
CV# 330 = 100 Random Z6 min interval
CV# 331 = 100 Random Z6 max interval
CV# 332 = 14 Random generator Z6 playback time
CV# 336 = 200 Random Z8 min interval
CV# 337 = 255 Random Z8 max interval
CV# 338 = 12 Random generator Z8 playback time
CV# 341 = 10 Switching input 1 Playback time
CV# 345 = 15 Sound-switch-key
CV# 346 = 2 Sound-switch-conditions
CV# 351 = 204 Smoke fan pwm at constant speed
CV# 353 = 32 Smoke heater max. operating time
CV# 376 = 181 Driving sound volume
CV# 394 = 32 ZIMO configuration 4 (binary)
CV# 395 = 120 maximal volume
CV# 396 = 27 Volume decrease key
CV# 397 = 28 Volume increase key
CV# 508 = 0 ZIMO Mapping dimming value 1-key
CV# 509 = 0 ZIMO Mapping dimming value 2-key
CV# 510 = 0 ZIMO Mapping dimming value 3-key
CV# 511 = 0 ZIMO Mapping dimming value 4-key
CV# 512 = 0 ZIMO Mapping dimming value 5-key
CV# 513 = 34 F1 Soundnumber
CV# 514 = 64 F1 volume
CV# 515 = 8 F1 information on loop
CV# 516 = 45 F2 soundnumber
CV# 519 = 46 F3 soundnumber
CV# 521 = 8 F3 information on loop
CV# 522 = 52 F4 soundnumber
CV# 524 = 8 F4 information on loop
CV# 543 = 39 F11 soundnumber
CV# 546 = 35 F12 soundnumber
CV# 549 = 37 F13 soundnumber
CV# 551 = 8 F13 information on loop
CV# 552 = 40 F14 soundnumber
CV# 553 = 128 F14 volume
CV# 561 = 43 F17 soundnumber
CV# 562 = 23 F17 volume
CV# 563 = 72 F17 information on loop
CV# 564 = 44 F18 soundnumber
CV# 566 = 72 F18 information on loop
CV# 567 = 35 F19 soundnumber
CV# 575 = 36 soundnumber change of direction
CV# 576 = 64 volume change of direction
CV# 577 = 38 soundnumber squeal
CV# 581 = 51 soundnumber starting whistle
CV# 582 = 91 volume starting whistle
CV# 583 = 33 Soundnumber drainage
CV# 603 = 53 cornering squeal sound number
CV# 604 = 128 cornering squeal volume

CV# 744 = 40 Soundnumber Z1
CV# 745 = 128 Volume Z1
CV# 746 = 8 Information on loop Z1
CV# 747 = 41 Soundnumber Z2
CV# 748 = 91 Volume Z2
CV# 749 = 8 Information on loop Z2
CV# 750 = 50 Soundnumber Z3
CV# 751 = 128 Volume Z3
CV# 752 = 8 Information on loop Z3
CV# 753 = 43 Soundnumber Z4
CV# 754 = 32 Volume Z4
CV# 755 = 8 Information on loop Z4
CV# 756 = 44 Soundnumber Z5
CV# 758 = 8 Information on loop Z5
CV# 760 = 46 Volume Z6
CV# 761 = 8 Information on loop Z6
CV# 767 = 8 Information on loop Z8
CV# 777 = 0
CV# 778 = 0
CV# 779 = 0
CV# 780 = 0