

Trainworx DCC Equipped Caboose

Basic Operation and Programming

Default Address = 3

Available Functions:

There are a total of 4 outputs (LEDs) on the TW Caboose decoder.

Default Function Assignments as follows:

F0 Forward	=	Rear (Cupola End) Red Marker	(Output: Front Light)
F0 Reverse	=	Front Red Marker	(Output: Rear Light)
F1	=	Rear (Cupola End) White Inspection Light	(Output: Aux 1)
F2	=	Front White Inspection Light	(Output: Aux 2)

Note: The F2 assignment is not best suited for DCC systems that utilize Function F2 as momentary (i.e., Digitrax), see the programming notes below.

Programming:

The TW Caboose Decoder is loaded with ESU file - ScaleTrains Tender Light (1.0.1450)

Programming is best done with either the ESU LokProgrammer or JMRI software.

A detailed outline of the specific CVs for this file are on the next page.

The Two-Digit address can be changed in CV 1 as with any DCC decoder and is a default value = 3.

For those that utilize DCC systems with a momentary F2 function button (i.e., Digitrax) the following is recommended:

Change CV 36 to a value of 0.

Change CV 37 to a value of 8. The Front Inspection Light will now be controlled by F3.

Decoder:	Trainworx Caboose (ESU Software File: Scale Trains Tender Light (1.0.1450))			
Created:	3/2/2025 10:00			
CV #	Name	Default	Description	Notes
CV 001	Short Address	3	Decoder Short Address	
CV 003	Acceleration	16	Acceleration Rate	(N/A for Function Only Decoders)
CV 004	Deceleration	12	Deceleration Rate	(N/A for Function Only Decoders)
CV 007	Version Number	208		
CV 008	Manf ID	151		
CV 013	Analog F1-F8	0	Status of F1-F8 in Analog Mode	
CV 014	Analog F0, F9-F12	1	Status of F0, F9-F12 in Analog Mode	Only Red Markers work in Analog Mode.
CV 015	Decoder Lock	0		
CV 016	Decoder Lock	0		
CV 017	Long Address	0	Decoder Long Address Upper Byte	Analog Mode will not work if Long Address is Enabled.
CV 018	Long Address	0	Decoder Long Address Lower Byte	
CV 019	Consist Address	0	Consist Address	
CV 021	Consist F1-F8	0	Status of F1-F8 in Consist Mode	
CV 022	Consist F0, F9--F12	0	Status of F0, F9-F12 in Consist Mode	
CV 029	Configuration CV	6	Value is sum of the following: Bit 0 - Normal Direction of Travel (0 = Normal, 1 = Reverse) Bit 1 - Speed Steps (0 = 14 steps, 2 = 28/128 steps) Bit 2 - Analog Mode (0 = Disabled, 4 = Enabled) Bit 3 - RailCom (0 = Disabled, 8 = Enabled) Bit 4 - Speed Curve (0 = Min/Max, 16 = Speed Curve) Bit 5 - Short or Long Address (0 = Short Enabled, 32 = Long Enabled)	Normal Direction of Travel can be changed if Caboose will be regularly operated with the Cupola Leading. Bits 1 and 4 are essentially N/A for Function Only Decoders
CV 033	F0 Forward	1	Outputs Controlled by F0 Forward - Default is Front Light	CVs 33-47 control function mapping for F0 to F12
CV 034	F0 Reverse	2	Outputs Controlled by F0 Reverse - Default is Reat Light	
CV 035	F1 Forward	4	Outputs Controlled by F1 Forward - Default is Aux 1	
CV 036	F2	8	Outputs Controlled by F2 - Default is Aux 2	Change to 0 for F2 Momentary Systems
CV 037	F3	16	Outputs Controlled by F3 - Default is Aux 3	Change to 8 for F2 Momentary Systems
CV 038	F4	32	Outputs Controlled by F4 - Default is Aux 4	
CV 039	F5	64	Outputs Controlled by F5 - Default is Aux 5	
CV 040	F6	128	Outputs Controlled by F6 - Default is Aux 6	
CV 041	F7	0	Outputs Controlled by F7	
CV 042	F8	0	Outputs Controlled by F8	
CV 043	F9	0	Outputs Controlled by F9	
CV 044	F10	0	Outputs Controlled by F10	
CV 045	F11	0	Outputs Controlled by F11	
CV 046	F12	0	Outputs Controlled by F12	
CV 047	F1 Reverse	4	Outputs Controlled by F1 Reverse	
CV 049	Auto Speed Steps	16	Auto Speed Step Detection	N/A for Function Only Decoders
CV 059	Min Delay Startup	0	Min Delay Start Time	Selectable in the Output Configurations
CV 060	Max Delay Startup	0	Max Delay Start Time	Selectable in the Output Configurations
CV 061	Min Random Switching	0	Min Random Switching Time	Selectable in the Output Configurations
CV 062	Max Random Switching	0	Max Random Switching Time	Selectable in the Output Configurations
CV 063	Neon Effect Start Time	0	Number of Neon Flickers	Selectable in the Output Configurations for Neon Effect
CV 112	Blinking Effect Frequency	16	Blinking Effect Flash Rate	Effect Selectable in the Output Configurations
CV 113	Front Light Configuration (Rear Red Marker Light)	7	Default is Dimmable Headlight, No Delay, No Random, Brightness = 7	Best programmed with LokProgrammer or JMRI
CV 114	Rear Light Configuration (Front Red Marker Light)	7	Default is Dimmable Headlight, No Delay, No Random, Brightness = 7	Best programmed with LokProgrammer or JMRI
CV 115	Aux 1 Configuration (Rear Inspection Light)	7	Default is Dimmable Headlight, No Delay, No Random, Brightness = 7	Best programmed with LokProgrammer or JMRI
CV 116	Aux 2 Configuration (Front Inspection Light)	7	Default is Dimmable Headlight, No Delay, No Random, Brightness = 7	Best programmed with LokProgrammer or JMRI
CV 117	Aux 3 Configuration	7	Default is Dimmable Headlight, No Delay, No Random, Brightness = 7	Best programmed with LokProgrammer or JMRI
CV 118	Aux 4 Configuration	7	Default is Dimmable Headlight, No Delay, No Random, Brightness = 7	Best programmed with LokProgrammer or JMRI
CV 119	Aux 5 Configuration	7	Default is Dimmable Headlight, No Delay, No Random, Brightness = 7	Best programmed with LokProgrammer or JMRI
CV 120	Aux 6 Configuration	7	Default is Dimmable Headlight, No Delay, No Random, Brightness = 7	Best programmed with LokProgrammer or JMRI
CV 129	F13	0	Outputs Controlled by F13	CVs 129-136 control function mapping for F13-F20
CV 130	F14	0	Outputs Controlled by F14	
CV 131	F15	0	Outputs Controlled by F15	
CV 132	F16	0	Outputs Controlled by F16	
CV 133	F17	0	Outputs Controlled by F17	
CV 134	F18	0	Outputs Controlled by F18	
CV 135	F19	0	Outputs Controlled by F19	
CV 136	F20	0	Outputs Controlled by F20	