



Our Famous GOOF PROOF NO
Questions Asked Warranty



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Scale	Functions	Function Rating
All	4	200 mA

Dimensions .556"x.356"x.12" or 14.17mm x 9.06mm x 3.06mm

This Function only decoder is designed to add extra lighting functions for any scale where extra lighting functions are needed.



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Light Function Wires

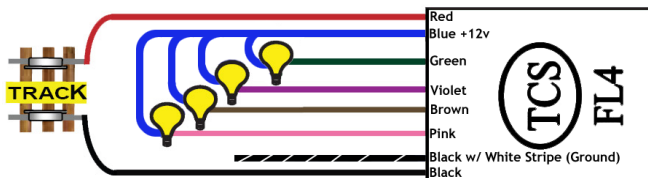
CV	Wire Color
CV 51	32 Green Wire
CV 52	32 Purple Wire
CV 53	32 Brown Wire
CV 54	32 Pink Wire

Light Effect	fwd	rev	both
Constant Bright Light	0	16	32
Random Flicker (fire box)	1	17	33
Mars Light	2	18	34
Flashing Light	3	19	35
Single Pulse Strobe	4	20	36
Double Pulse Strobe	5	21	37
Rotary Beacon	6	22	38
Gyra Light	7	23	39
Rule 17 (dimnable light)	8	24	40
Ditch Light (Left or Right)	10	26	42
Ditch Light (Other side)	11	27	43
Constant Dim light (50%)	12	28	44
*Auto-Mars	13	29	45

INSTALLATION

For detailed installation information visit our website where we maintain a constantly growing database of a wide range of locomotives and decoders.

WIRING DIAGRAM



Light Function Wires

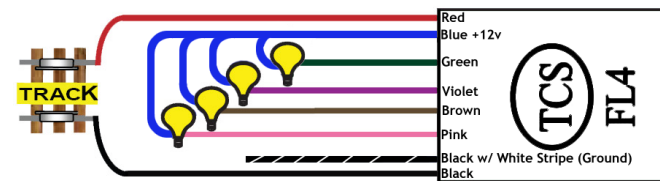
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WIRING DIAGRAM



BASIC CONFIGURATION

Circle the values by all of the changes you want to make.

1	A	0	1	Reverse the direction the engine runs.
	C	4	4	Enable analog (DC) operation.
	E	0	32	Make the decoder address 128 or higher.
CV 29	6			Adjust the Default Value by the values you have circled.

2 Digit Address

Use if the address is 127 or less.

2	CV 1	3		Record your choice here.
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Consist Address

If this is greater than 0, the regular address is unalterable.

4				Add 128 to reverse the loco when in consist. Some systems only!
CV 19	0			Use a 2 digit address when in a consist (Multiple units).

Factory Reset

Sets all CVs with a shaded value back to that value.

	CV 8	153		As soon as you enter a 2 in CV 8 the reset is complete.
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Consist Lighting Control

Activate so the direction of travel lights are lit.

18			Green Wire = 1	Purple Wire = 2
	CV 21	0		Other Light Functions

Analog (DC) Power Control

Turn off Black or Red wire powered functions.

17			Green = 1	Purple = 2
	CV 13	255		Activate power to light functions on DC

35 Advanced Rule 17 Dimming

CV 140	0	Dimming Control	
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Values:	FWD	REV
Green Wire	17	1
Purple Wire	34	2
Brown Wire	68	4
Pink Wire	136	8

To use the advanced rule 17 dimming add together the values for the functions you want to be affected by your rule 17 settings and program that value into CV 140. See table on the right for values.

NOTE: When attempting to read back CV's on the programming track the FL4 must have a 50-100 ohm resistor in series between the blue wire and any of the light function wires.

For a full list of features for the FL4: See the "Additional Programming Guide" at http://www.tcsdcc.com/Customer_Content/Literature/Literature.htm for information on **four digit addressing, adjustable dimming, blink rate adjust, function remapping,** and much much more.

Warranty Procedure: All decoders are covered by a one year goof proof, no questions asked warranty. To register your failed decoder **please visit our website at:** www.tcsdcc.com and follow the warranty instructions outlined there.

Compatible with NMRA DCC standards. Made by TCS in the USA.
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Email tcs@tcsdcc.com
Web www.tcsdcc.com

BASIC CONFIGURATION

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