



Our Famous GOOF PROOF NO Questions Asked Warranty



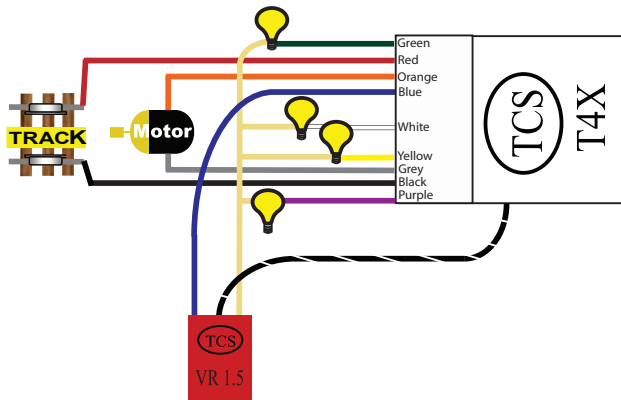
Scale	Input Rating	Output Rating
HO	8 to 20V	1.5V at 120 mA

Dimensions: .7" x .425" x .16" or 17.78mm x 10.795mm x 4.064mm

The VR1.5 will take power from the positive 12v (blue wire) and the negative (black w/ white stripe wire) from your decoder and output a steady, highly accurate 1.5 volts on the tan wire. This is ideal for working with 1.5v bulbs in situations where resistors are unwanted or unusable. The VR1.5 can be used with any decoder where the the ground and common are available for wire attachment.

### WIRING DIAGRAM

This is an example hookup showing the VR1.5 connected to the T4X Decoder



### INSTALLATION

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



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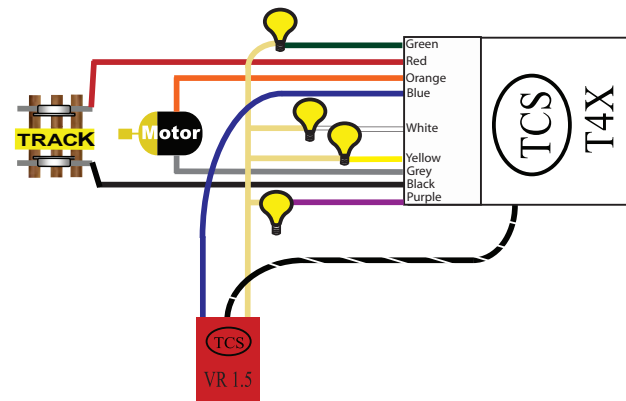
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## VR 1.5 Specifications

The VR1.5 works with 8 to 20 volts input. Output rating is 1.5 volts at 120ma maximum. Recommended input is 13 volts.

### How to hook up the VR1.5

The blue wire and black with white stripe wire are the power being supplied to the VR1.5. The blue wire coming from the decoder to the VR1.5 is the positive 12 volts to power the VR1.5. The black with white stripe coming from the decoder to the VR1.5 is the negative also known as ground or common wire. The tan wire is positive 1.5 volt power coming out of the VR1.5. It is the 1.5 volt supply that is connected to one side of all the 1.5 volt bulbs. The other side of the bulbs are connect as normal to the decoder function leads.

If the VR1.5 is to be operated at its maximum rated capacity of 120ma it is recommended to place the VR1.5 against the metal chassis of the locomotive for additional heat sink. The VR1.5 does get warm under normal operating conditions. It is recommended to keep it away from contact with plastic parts of the locomotive shell.

### Other notes:

The VR1.5 can be used be used as a stand alone voltage regulator as long as you supply it with 12 volt DC power in. To use it with other decoders you would need to connect the blue wire to positive 12 volts and the black /white strip wire to negative or ground of the decoder.

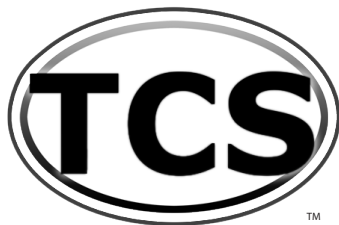
**WARRANTY PROCEDURE:** All decoders are covered by a one year goof proof, no questions asked warranty. Please return in a padded envelope or small box. NOTE: A4X, A6X, DP2X, and all drop in N-scale decoders must be returned in a small box.

1. Register the decoder(s) on our website at [www.tcsdcc.com](http://www.tcsdcc.com).
2. Print out a copy of the Warranty Registration and include in the padded envelope with the decoder(s).
3. Return decoder(s) directly to us using the address below.

Compatible with NMRA DCC standards.

Made by TCS in the USA.

Train Control Systems  
P.O. Box 341  
845 Blooming Glen Rd.  
Blooming Glen, PA 18911



Phone **215-453-9145**  
Fax **215-257-0735**  
Email [tcs@tcsdcc.com](mailto:tcs@tcsdcc.com)  
Web [www.tcsdcc.com](http://www.tcsdcc.com)

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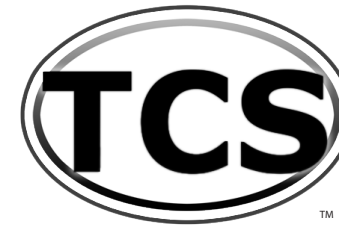
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