



## Our Famous GOOF PROOF NO Questions Asked Warranty



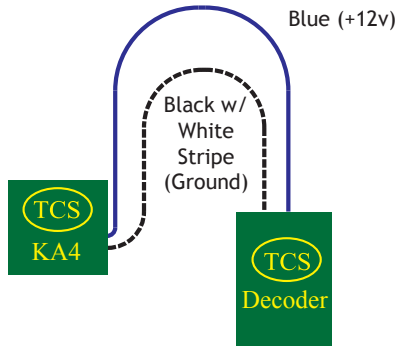
Scale	Input Rating
HO/N	12 to 16V

Dimensions: .52" x .52" x .45" or 13.2mm x 13.2mm x 11.55mm

The Keep-Alive™ (KA) devices are used to supply power to decoders during times of power interruption due to dirty track or problematic track work. The KA4 will power an HO-Scale locomotive with headlights on for approximately 6 to 20 seconds (depending on the locomotive and the efficiency of the motor). This KA4 will work with Keep-Alive™ ready decoders and most non-TCS decoders. TCS decoders manufactured after February 2012 are Keep-Alive™ ready.

### WIRING DIAGRAM

This is an example hookup showing the KA4 connected to a TCS KA ready Decoder



### INSTALLATION

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



# TCS Keep-Alive™

## Keep-Alive™ (KA) Decoder Compatibility

The TCS KA's are designed to operate with the TCS Keep-Alive™ ready decoders. These decoders include an extra Blue wire and a Black w/ White Stripe wire for connecting the KA to the decoder. Decoders with a “-KA” added to the end of the name require hardwiring the KA to the wires coming off the decoder and decoders with a “-KAC” added to their name have a 2-Pin Connector for attaching the KA.

## Installation Notes for TCS Decoders

1. Connect the Keep-Alive™ wires to the decoder (Make sure you match the wire colors on the KA to same wire color on the decoder).
2. Program CV 182 to a value of 2.
3. That's it! Your locomotive is ready to run over the most treacherous of tracks.

**NOTE: If you wire this backwards (blue to black w/white stripe) you will VOID the warranty and destroy this device.**

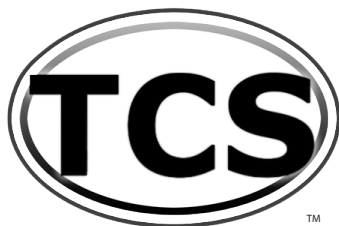
**WARRANTY PROCEDURE:** All decoders are covered by a one year goof proof, no questions asked warranty. **Please return in a small box.**

1. You **MUST** register the failed decoder on our website at [www.tcsdcc.com](http://www.tcsdcc.com).  
If you do not have access to a computer you **MUST** call to register your warranty at: **(267) 733-3408**
2. Print out a copy of the Warranty Registration and include it in the box 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**  
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