Main Features of this Decoder:

- **Back EMF Load Compensation** for superior slow speed control even with heavy loads.
- **Quiet Drive** creates SUPER QUIET engine performance.
- **Autodetect** for realistic throttle response when using DC power.
- **Dimmed Brightness** of bulbs or LEDs is adjustable.
- **Variable Momentum** lets you make custom acceleration curves.
- **Ditch Lights**: control alternating ditch lights with realistic pulsing.
- **Mars, Gyra, and Rotary Beacon** are adjustable.
- **Decoder Lock** for programming same address decoders independently.
- **Function Remapping**: 13 buttons for most lights, 7 buttons for operations.

Other Features of This Decoder:

This decoder has too many features that could be listed on this page. For the complete list of available features, print out the “Additional Programming Guide” that can be found in the literature section of our website (www.tcsdcc.com).

Some of the features include: Function Remapping, 3 Point Acceleration/Deceleration Curves, Button Control of the Motor, Loadable Speed

**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. 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.

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

Compatible with NMRA DCC standards. Made by TCS in the USA.
LIGHTING CONTROL

Consist Lighting Control

CV 21 0 Extra Functions
CV 22 0 Headlight Functions

Lighting Quick Presets

CV 8 10 Program a value of 10 to make violet and green ditch lights. Button 1 turns them on and Button two makes them blink.
CV 11 10 Program a value of 11 for default trolley settings.
CV 12 10 Program a value of 12 for standard trolley settings and tail lights.

Note: For more information on Quick Presets visit the Comprehensive Programming Guide at www.tcsdcc.com