

# Instructions for TD1 Digitrax Transponder



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Digitrax Command Control

## **TD1** **Digitrax DCC Transponder** **for use with** **non-transponding DCC decoders** **or as stand alone transponder**

Digitrax DCC Transponder

Supports Both 2 Digit & 4 Digit Address Modes

Programmable from DCC compatible equipment

Compatible with Digitrax DCC Transponding Systems

Digitrax manuals & instructions are updated periodically.  
Please visit [www.digitrax.com](http://www.digitrax.com) for the latest version.  
These instructions were updated 12/01.

**Made in USA**



## Transponder Installation Instructions. For TD1 Transponder

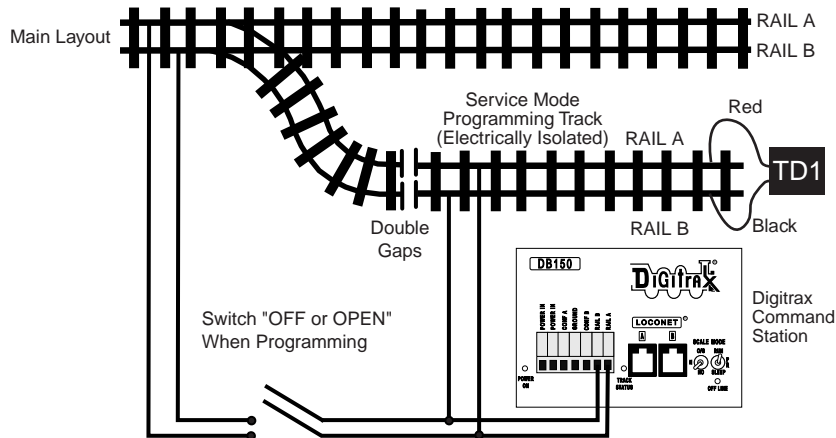
See your DCC system manual for information about programming decoders, Digitrax manuals are available from your local dealer. If your dealer is out of these manuals they are available in PDF format at [www.digitrax.com](http://www.digitrax.com).

### TD1 Installation Instructions

A TD1 should not be connected to an existing transponder equipped DCC decoder unless the DCC decoder's transponder is disabled. This avoids having 2 transponders responding to the same address in the system.

#### Program the TD1's Address

1. Before using your TD1, set its address. Usually this will be the same address used in the mobile decoder with which you are planning to use the TD1.  
In the case of TD1s being used as stand alone transponders, choose an address that is not associated with another mobile decoder address in use on the layout.
2. Connect the RED & BLACK wires of the TD1 to a service mode DCC programmer and program the TD1's address as you would any mobile decoder address.  
Follow the instructions for programming mobile decoders in your command station manual for the exact steps to use. The TD1 can be programmed with a 2 digit (Ad2/AD01/CV01) or 4 digit (Ad4/CV17 & CV18) address. Remember to set CV29 to the appropriate value per your Decoder Manual for 2 digit or 4 digit operation. For 2 digit addressing CV29 is most commonly set to x06/006 decimal\*. For 4 digit addressing, CV29 is most commonly set to x26/038 decimal\*.
3. Programming a TD1 after it is installed in tandem with a DCC decoder may yield unexpected results because of differences in the way various DCC decoders respond to programming. If you are not able to program your installed TD1, first try using a different programming method. If this does not work, remove the TD1 & program it separately on the service mode track, then re-install it in the loco.



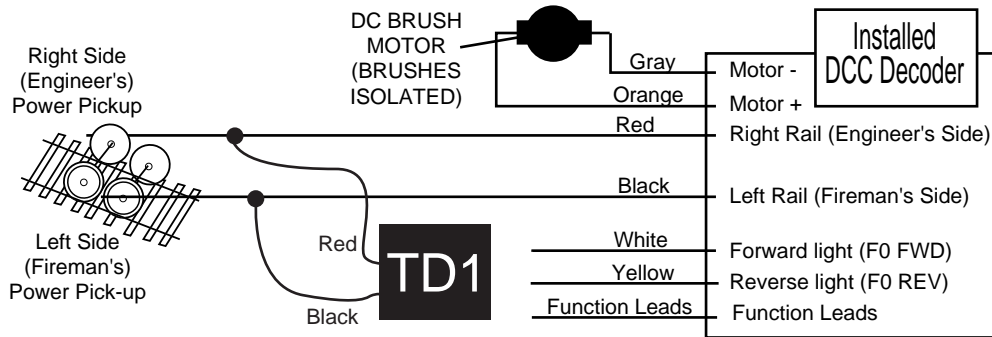
NOTE: Some wiring omitted for clarity

**TD1s are shipped with the two digit address set at 03 and with CV61 set at 02 to enable transponding.**

**Note: The TD-1 is not capable of Operations Mode Programming.**

**Install the TD1 in the Loco or Rolling Stock**

1. Connect the TD1's RED and BLACK wires to the matching RED and BLACK track feed wires of an installed DCC mobile decoder.
2. If the TD1 is to be used by itself, for example in a caboose or box car without a DCC mobile decoder installed, connect the TD1's RED wire to the right hand track pickup and the TD1's BLACK wire to the left side track pickup.
3. No other parts are required to set up the transponder current pulses, since this is self-contained in the TD1.



**Test the installed TD1 for correct operation**

1. Place the unit with the installed TD1 on an empty transponding track section. This test assumes that the transponding track section is already installed, tested and working before you start TD1 testing.
2. Using a DCC throttle, select the TD1 address that was programmed into the TD1 and verify that the transponder detector identifies the presence of the transponder device. Depending on how you have set up your transponding reporting to the system, your system should detect the presence of the address in that transponding section. For example, if you have an LT5 connected to the same BDL16 Zone plug as the track's Zone, you should show a blinking Zone power light that blinks when the TD1 equipped unit is placed on the empty transponding track section, and is steady when the TD1 is removed. This confirms correct installation and function of the TD1.
3. Another way to check the newly installed TD1's transponder address and location it so use any of the following:
  - a. The Find feature of a DT400 (See the DT400 or Super Chief Manual)
  - b. The transponder display of an attached PC with transponder capable software
  - c. Checking for <D0> type LocoNet messages with a LocoNet monitor program like the LocoMon Application running on a Palm OS PDA.

*\*Some systems use hex notation and others use decimal notation. Here both values are given. The number preceded by the "x" is the hex number and the other number is the decimal value corresponding to the hex number. Simply use the correct notation for the system you are using. CV values shown as 2 digits are the same in hex & decimal.*

Damaged transponders should be returned directly to Digitrax for repair.

See [www.digitrax.com](http://www.digitrax.com) for repair charges.

*Digitrax, Inc. is not responsible for unintentional errors or omissions in this document.*

