BitSprings Systems

'44 Caddy™ Installation Instructions (DS44 Customer Installed)

The '44 Caddy™ makes the Digitrax DS44* stationary decoder easier to use, install, and program. It allows secure installation of the DS44 while protecting the decoder's delicate wires and allows easy rewiring to the DCC power source and turnout motors using just a small screwdriver. In addition, its built-in resettable fuse minimizes the chance of damage to the decoder if there is an accidental short or a turnout motor malfunction which results in a high current draw. The '44 Caddy™ can be used with any slow motion turnout motors that are suitable for use with the Digitrax DS44.

### Decoder Installation (You may skip this section if you purchased the '44 Caddy™ with a preinstalled DS44)

1) Test the DS44 before altering it in any way.

2) Shorten the nine wires on the DSS44 harness to about 3" long and strip 1/8" of the insulation off the ends.

3) Insert the stripped end of each of the nine wires on the DS44 harness through the matching hole on the front of the '44 Caddy™ and solder on them on the back of the board. Simply match the wire color to the proper labeled pad.

4) Plug the harness into the DS44.

5) Shorten the remaining two power wires attached to the body of the DS44 to about 1" long and strip 1/8" of the insulation from the ends.

6) Solder the red and black wires to the matching pads on the '44 Caddy™ which are labeled "Red" and "Black" respectively. If desired, these two wires can be connected to the screw terminals at the end of the decoder instead to ease later removal or replacement.

7) Carefully fold any excess wire against the DS44 and secure the assembly to the '44 Caddy™ using the included wire tie inserted through the two holes in the board. **Do not over tighten the wire tie** or the DS44 may be damaged.

Wiring on the Layout

Always turn off the DCC power prior to wiring the '44 Caddy™ or the connected turnout motors.

8) Mount the '44 Caddy™ as desired using the four holes near the corners of the board. (Hardware not included.) Do not mount the '44 Caddy on a conductive surface without first carefully insulating the back of the board or using non-conductive standoffs.

9) Connect DCC power to either of the two terminal blocks marked "DCC". The unused set of terminals can be used to daisy chain additional '44 Caddy™ boards.

10) Using the eight motor output terminals, connect wires to the slow motion turnout motors. There are four pairs of terminals labeled A through D that correspond to the four DS44 outputs. Polarity is as shown in Figure 1 on the Digitrax instruction sheet.
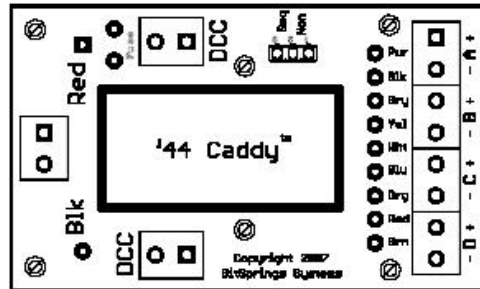
Programming the DS44

11) Program the DS44 per the Digitrax instructions. However, instead of having to connect and disconnect the white wire, the three pin jumper on the '44 Caddy™ is used. Simply move the shorting jumper to Pins 1 and 2 when programming Non Sequential Addresses and to Pins 2 and 3 when programming Sequential Addresses. When not programming the decoder, the jumper should be placed only on Pin 1 for safe keeping.

Note: Carefully read the Digitrax instructions for programming Sequential addresses. Addresses are assigned in fixed four number sequential blocks as shown in Table I of the DS44 instructions.

Fuse

The built-in poly switch resettable fuse (PPTC) will limit total current draw to 100 milliamps which should be sufficient for all DS44 compatible turnout motor combinations. Should there be an accidental short or motor malfunction which is beyond the fuse threshold, it will trip and then reset automatically when the malfunction is cleared and normal operation will resume.

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