

Section 4

Operating the Track Display Board using the Digitrax Zephyr

In this section, we will demonstrate how to operate the Track Display Board using the Digitrax Zephyr (DCS50). You will need two LEDs attached to Output #1 of the Track Display Board. (*Please refer to the **Quick Start Guide** for installing the two LEDs before you proceed.*)

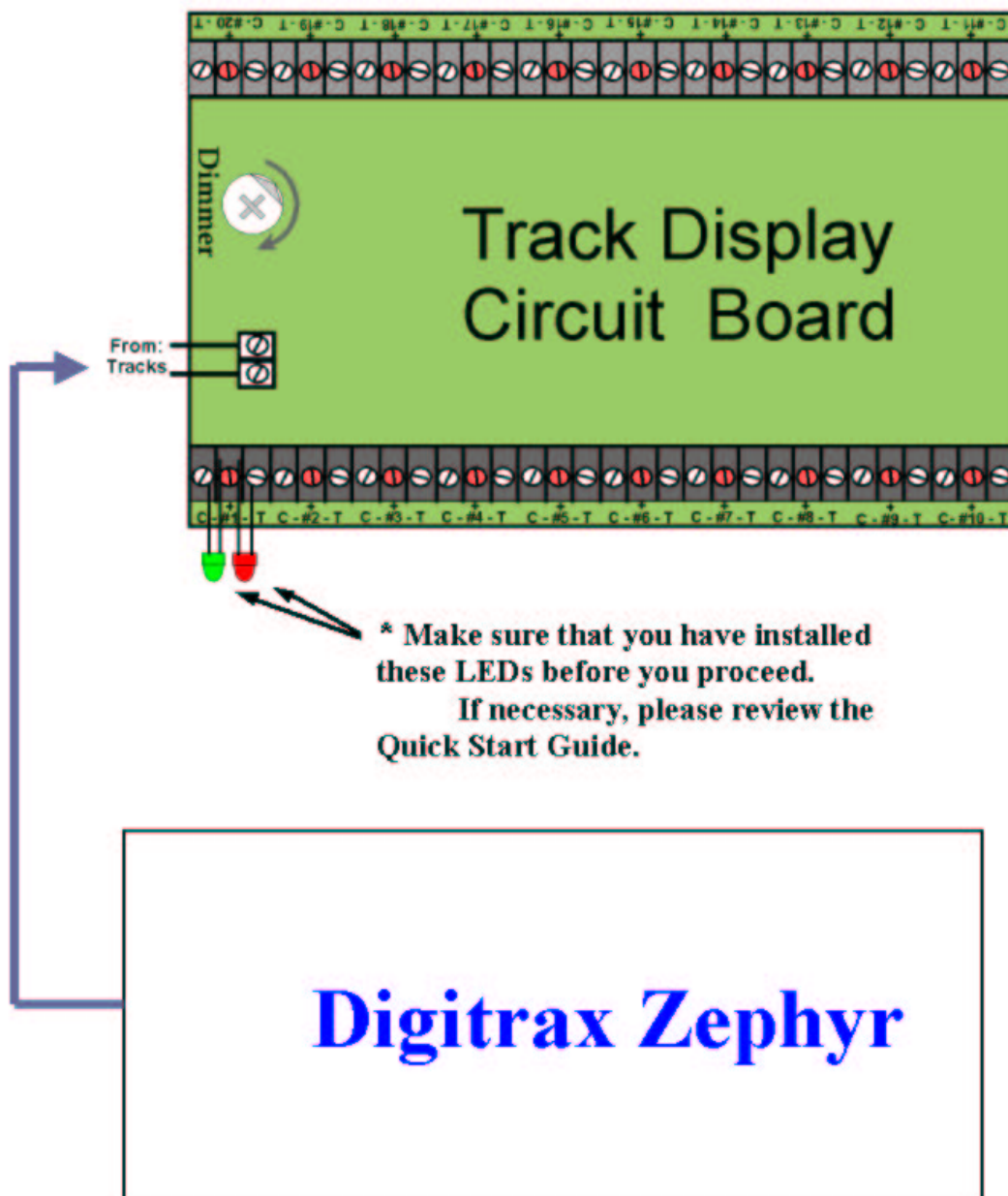


Figure 1 shows the back panel of the Digitrax Zephyr.

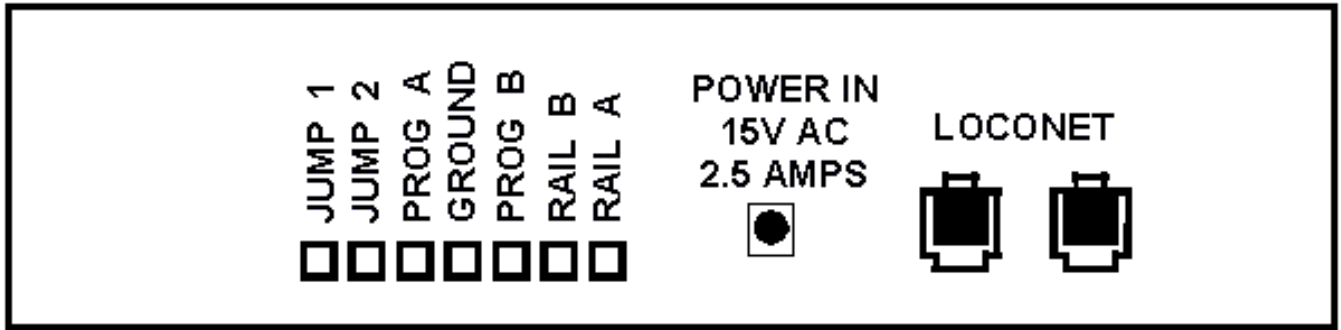


Figure 1

Attach two wires from the RAIL A and RAIL B connections of the Zephyr to the two terminals marked “**From Tracks**” of the Track Display Board as shown in Figure 2.

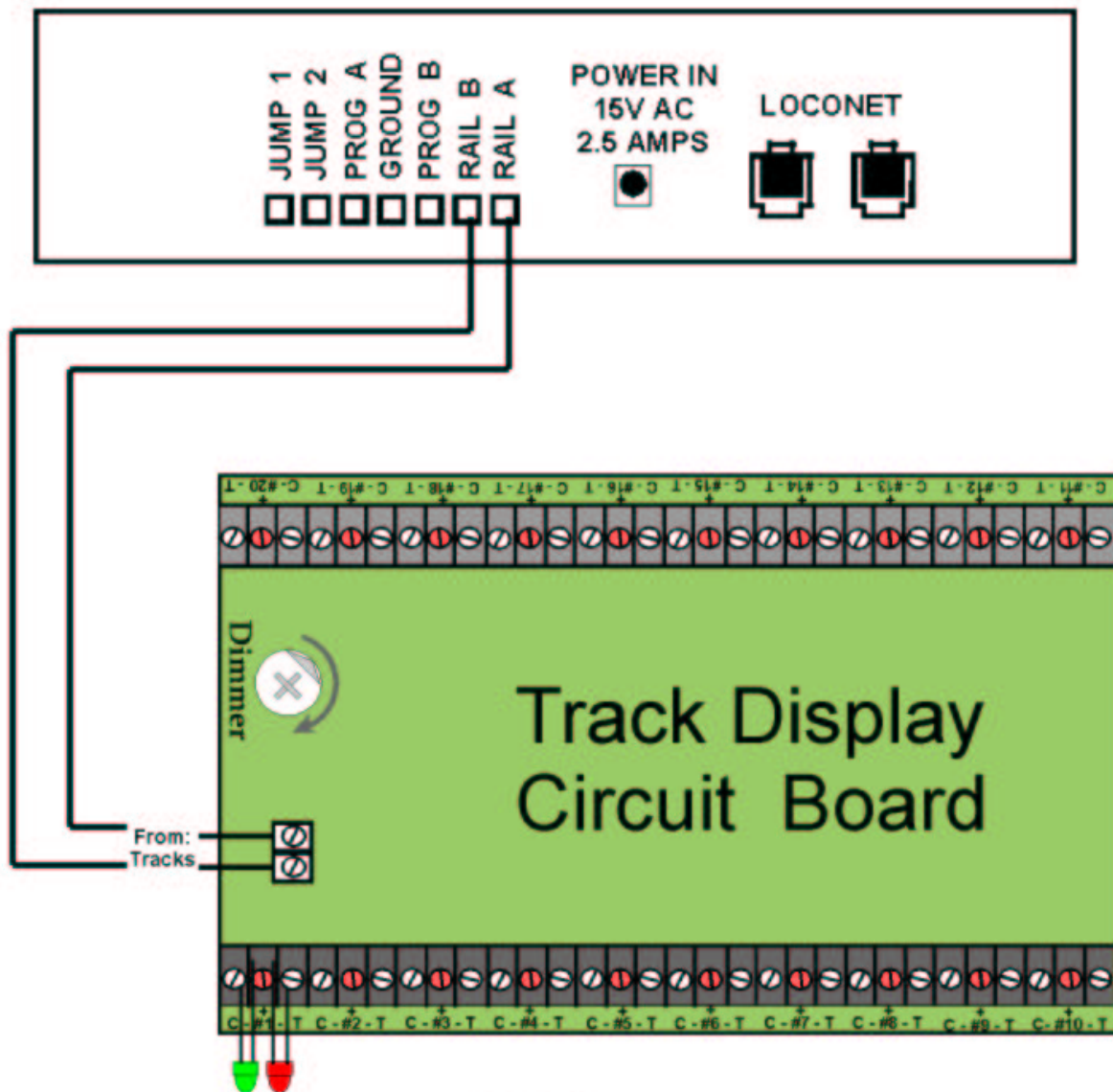


Figure 2

Double check your connections and then attach the Zephyr power supply to the POWER IN jack of the Zephyr as shown in Figure 3.

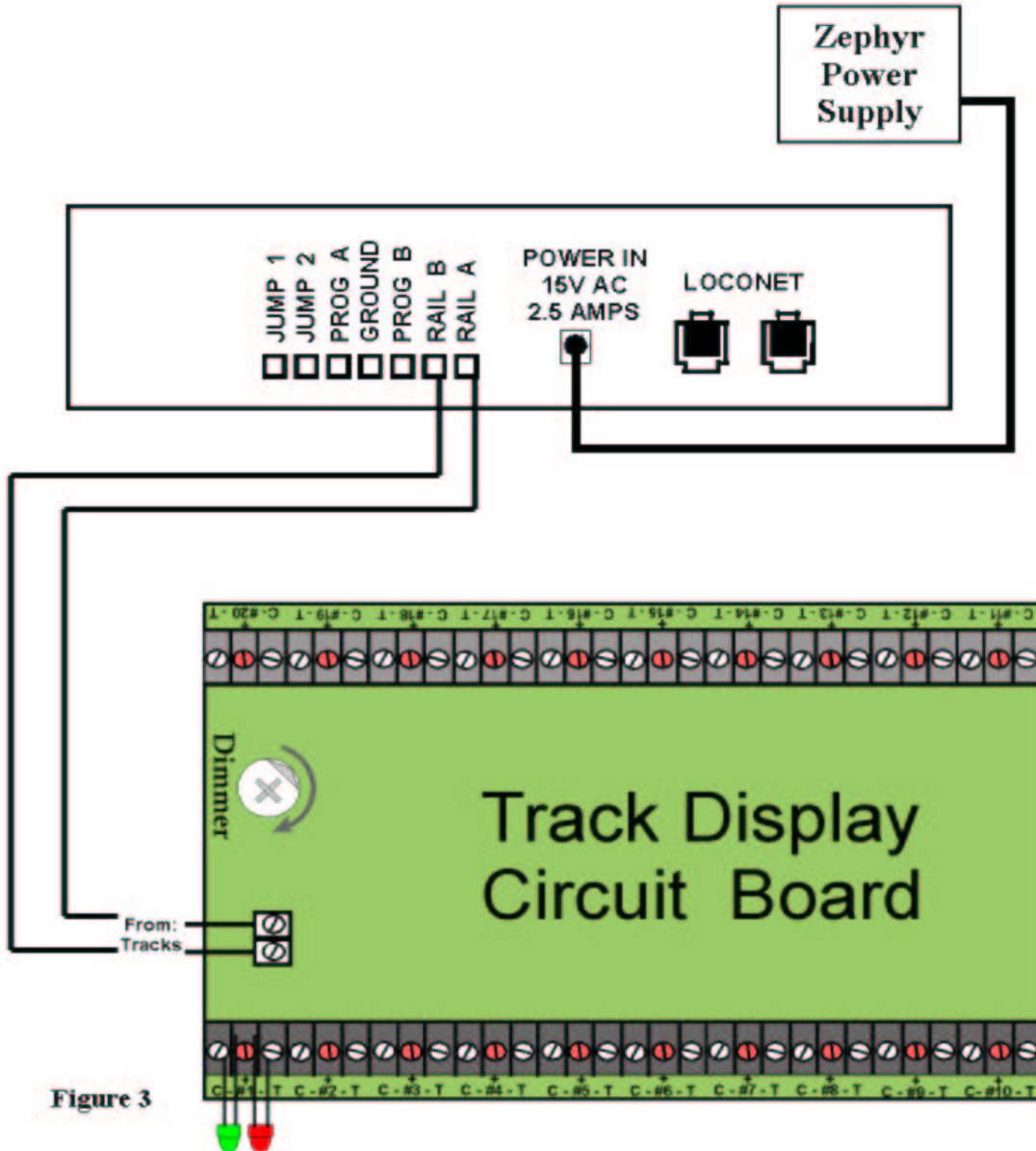
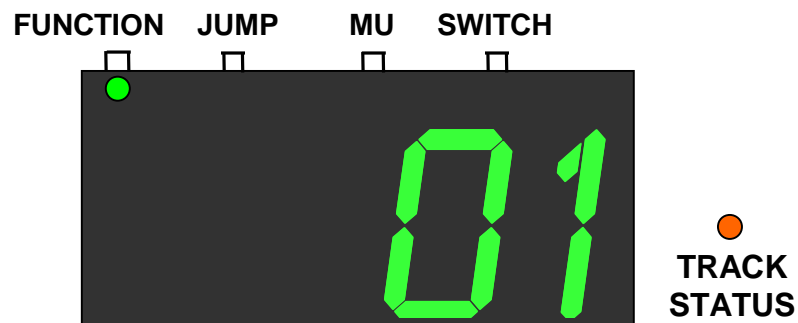


Figure 3

With power applied, the display should read something like this:



Be sure the orange TRACK STATUS LED is lit. If not, press  key.


At this point, one of the LEDs attached to Output #1 of the Track Display Board should be on, but not both. If this is not the case, check the connection between the RAIL A and RAIL B outputs of the Zephyr and the Track Display Board.

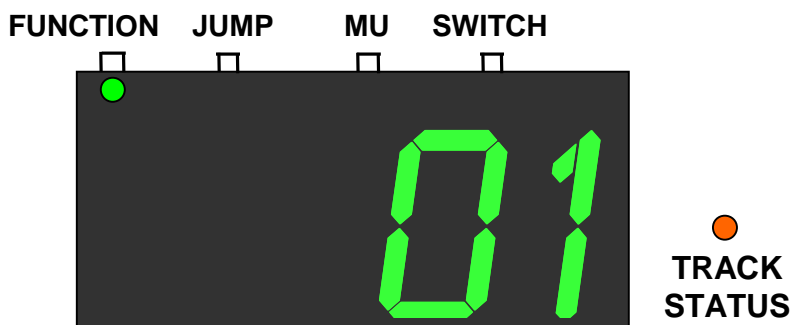
In the following discussion, when the Green LED is on, the switch machine on the mainline is in the “Closed” position. When the Red LED is on, the switch machine is in the “Thrown” position.

Let’s “Throw” the Switch

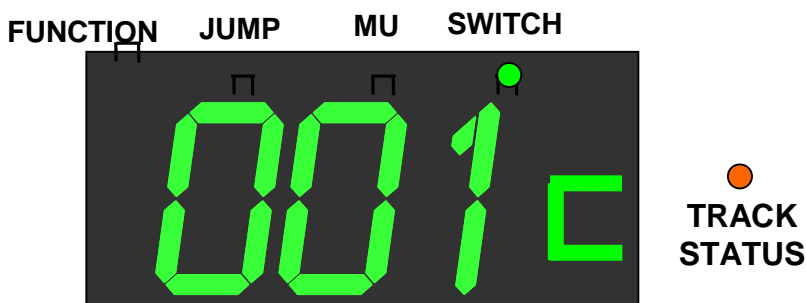
If the Green LED is on right now, then the switch is in the “Closed” position. Follow these steps **ONLY** if the Green LED is on. (If the Red LED is on, then skip to **Let’s “Close” the Switch.**)

The following instructions will send a “Throw” switch #1 command to the Track Display Board:

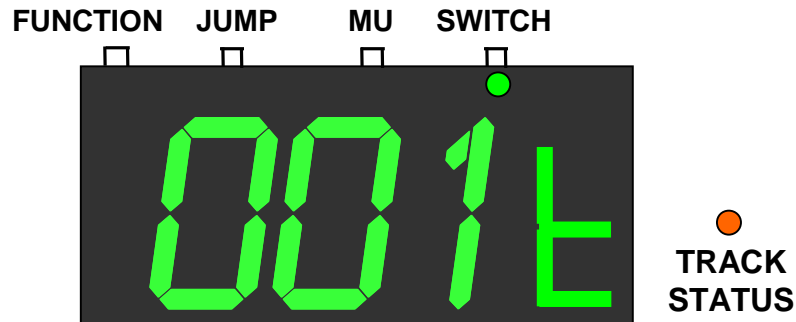
If necessary, press the  key to display a screen similar to this:



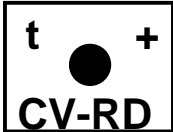
Press the  key. The display should show something like this:



< OR >



The Switch Indicator Dot is lit to remind you that you are in Switch Mode.

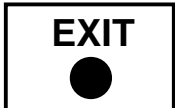
Now press the  key to throw the switch.

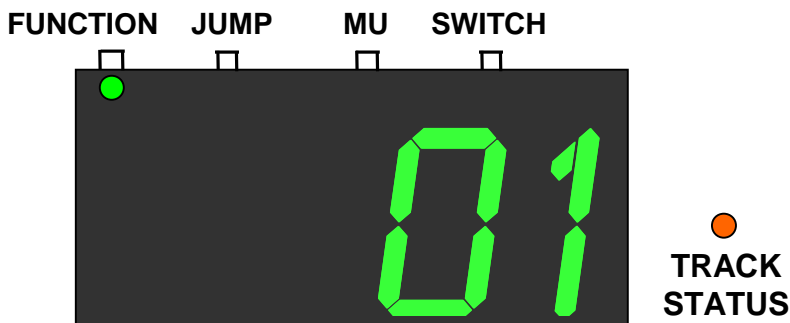
If all went well, the Green LED is off and the Red LED is on.

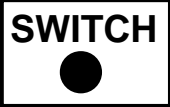
Let's "Close" the Switch

If the Red LED is on right now, then the switch is in the "Thrown" position. Follow these steps **ONLY** if the Red LED is on. (If the Green LED is on, then go back to **Let's "Throw" the Switch.**)

The following instructions will send a "Close" switch #1 command to the Track Display Board:

If necessary, press the  key to display a screen similar to this:




Press the  key. The display should show something like this:



< OR >



The Switch Indicator Dot is lit to remind you that you are in Switch Mode.

Now press the  key to close the switch.

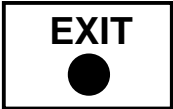
If all went well, the Red LED is off and the Green LED is on.

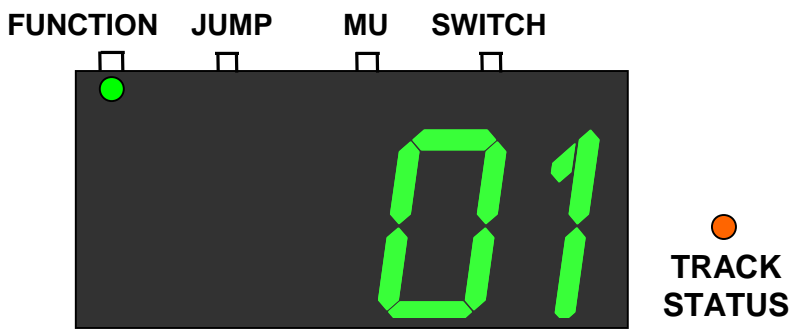
Built-in Self Test

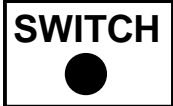
The Track Display Board incorporates a built-in self-test. The self-test is

initiated by sending either a “Close” or “Throw” command to Switch #99. When the self-test is initiated, all the outputs on the Track Display Board go active, lighting all the LEDs for 5 seconds. Following this, all the outputs go inactive, turning off the LEDs for 3 seconds. This tests all the LEDs for functionality. It also serves as a test for short circuits that could keep an LED on all of the time.

To initiate the self-test, follow these instructions:

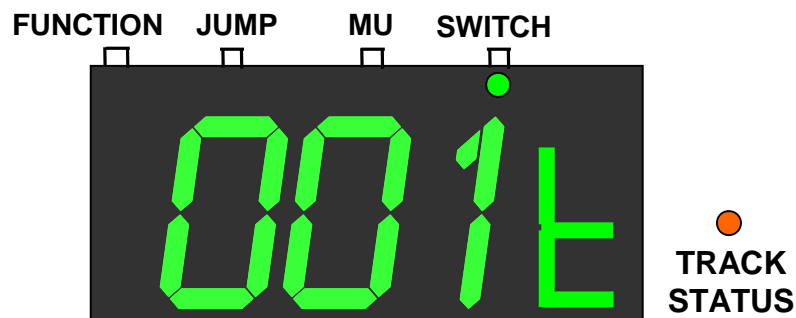
If necessary, press the  key to display a screen similar to this:



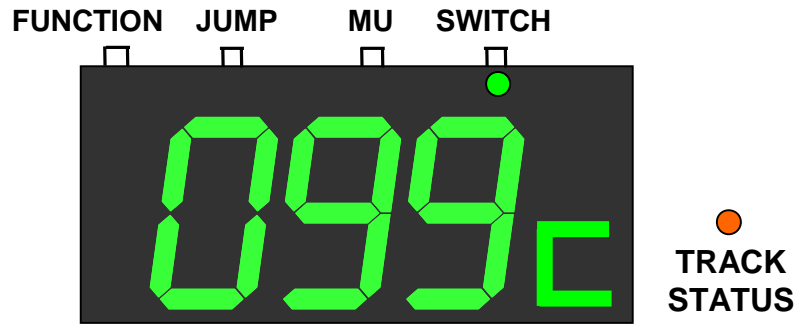
Press the  key. The display should show something like this:



< OR >



Now, press **99** on the keypad. The display will show something like this:



Press either the  or  key while keeping your eyes on the LEDs.

If all went well, both LEDs should have turned on for 5 seconds, then off for 3 seconds, then back to the normal operating state waiting for a switch command.

Notes: _____
