

Loop Traverser - Quick Start

Step 1: Power Connection

Connect a 12 volt AC power source to the **green** screw terminal block, labelled **X1** in Figure 1 and on the circuit board.

The power source should be capable of providing enough current to power the train's operation, but should not exceed 1 ampere.

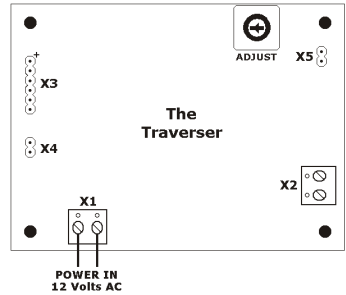


Figure 1

Step 2: Track Output

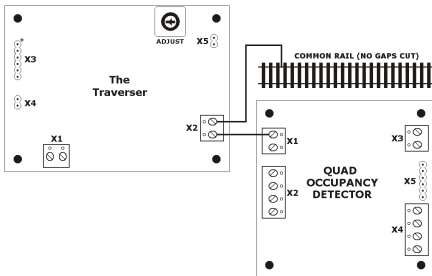


Figure 2

Track output is on the black terminal block, labelled **X2** on The Traverser in Figure 2 and on the its circuit board. Think of this output just like the output of any cab power pack.

Instead of connecting each each of the terminals to one of the rails, only one is directly connected to the common rail. This is the rail with no gaps cut in it. The connection from the other terminal must pass through the detector, so it should be connected to either of the two screw terminals of the terminal block on the Quad Occupancy Detector (QOD) labelled **X1**.

As the train will operate in one direction only, do not worry about which terminal connects to the common rail and which connects to the QOD. Following diagrams will show the common rail as the one on the outside of the loop, but you can choose either rail to be the common.

Step 3: Track Power from QOD to Track: 2 Stops

Four track power outputs from the QOD can be found on its terminal block labelled **X2** in Figure 3, Figure 4 and on its circuit board.

Gaps in the rail separate each block. Six gaps must be cut to separate the loop into six blocks. The first and last terminal on **X2** connect to the sections of the gapped rail where the stops will be located. These blocks can be as short as the length of the locomotive.

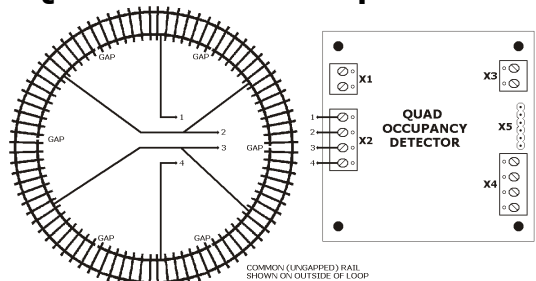


Figure 3

The other two connect to the intermediate sections between each stop on each half of the loop. The second terminal connects to the blocks on either side of the block connected to the first terminal, and the third terminal connects to the blocks on either side of the block connected to the fourth terminal.

Step 4: Occupancy Feedback to The Traverser

A ribbon cable is used to connect the occupancy outputs of the QOD to the occupancy inputs of The Traverser.

The ribbon cable has an identified side, usually with a red stripe. One end of the ribbon cable should connect to **X5** on the QOD, with the identified side at the end of the connector labelled **V+**. This is the end closest to the two-terminal block labelled **X3**.

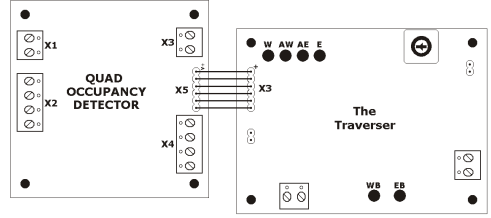


Figure 4

The other end of the ribbon cable connects to **X3** on The Traverser. Its identified side should be at the end of the connector labelled with a **+**. This is the end closest to the four red occupancy LEDs.

Rail Gapping and Wiring for More Than Two Stops

It is possible to have more than two stops on the loop, as long as there are an even number of stops. However, as more stops are used, the wiring between the QOD and the track increases in complexity.

The important factor, regardless of the number of stops, is that the same sequence of blocks powered by the terminals on **X2** of the QOD is followed:

1, 2, 3, 4, 3, 2, and back to 1

Stops occur in blocks 1 and 4, so each repeat of this sequence adds two more stops.

As an example using four stops, the sequence becomes:

1, 2, 3, 4, 3, 2, 1, 2, 3, 4, 3, 2, and back to 1

The wiring for this is shown in Figure 5:

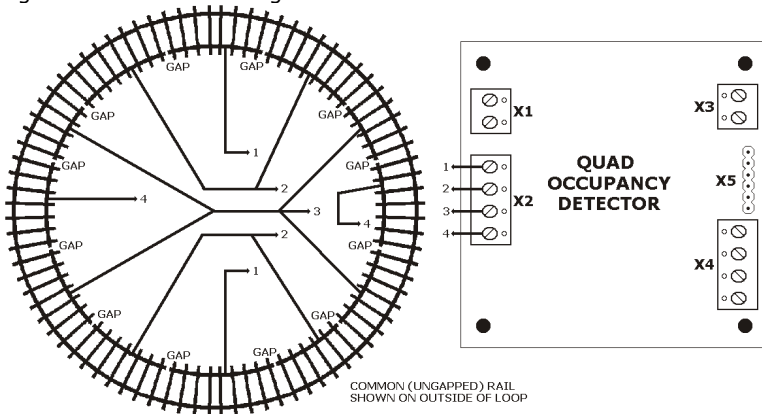


Figure 5

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