

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.

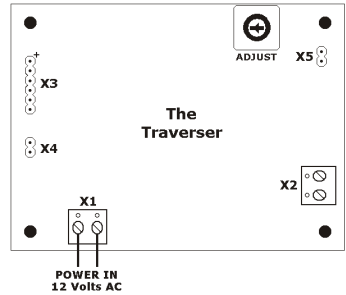


Figure 1

Step 2: Track Output

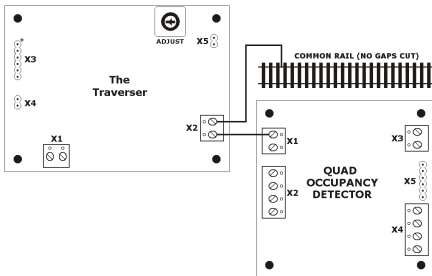


Figure 2

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 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**.

At this point, do not worry about which terminal connects to the common rail and which connects to the QOD. If train operation is wrong, these can be exchanged.

Step 3: Track Power from QOD to Track

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

Each one connects to one section of the gapped rail.

Gaps in the rail separate each block. The blocks at each end of the track should be long enough for the train to come to a stop.

This length depends on several factors such as the speed of train and its physical momentum. Deceleration begins when the leading power-pickup axle of the locomotive crosses the last gap and takes about a half second. The length needed can be determined experimentally using a regular cab power pack on a test track with the train. Note that if the locomotive is pushing cars that do not draw power, the end block when pushing will need to be long enough for the entire train.

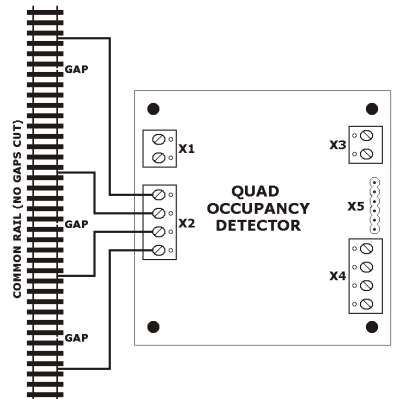


Figure 3

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**.

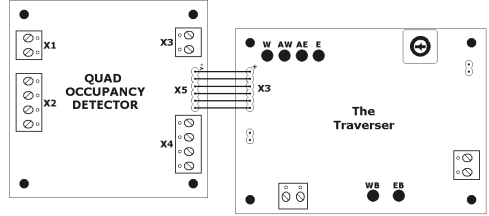


Figure 4

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.

Step 5: Power-Up Testing

Initial testing should be done by powering up with the locomotive located at one of the end blocks, then repeated with it located at the other end block.

If the initial direction of the locomotive is towards the end-of-track at that end instead of towards the opposite end, switch the track output connections from The Traverser, on the black terminal block, labelled **X2** (see Figure 2). Proper operation should be observed with start-up from both ends.

If you find that the locomotive only heads towards the end-of-track at one end even after switching the track output connections, the problem is likely that you are using a power source that provides direct current, not alternating current. Replace the power source with something that provides 12 volts AC.

Optional Fifth Block

If your track is long and you want the train to run a little faster in the middle, you may add an extra track gap to divide the run into five blocks. The two blocks at each end are wired as described in Step 3, and the new block in the middle is powered directly from The Traverser.

Since the QOD has two screw terminals on its track power input block, **X1**, the spare terminal can be used for this connection.

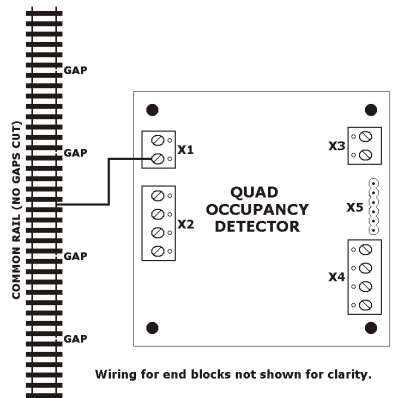


Figure 5

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