

ECoS feedback using the Digitrax DS64 / BD4 By Steve Weeks

Note: The following information assumes that both the DS64 & BD4 have previously been connected as per manufactures instructions.

A DS64 has a total of eight feedback inputs of which four can be used with a BD4 for track occupancy and the four remaining used with manual switches to control point motors as follows:

BD4 inputs A1-A4 = ECoS inputs 1,3,5,7

Manual inputs S1-S4 = ECoS inputs 2,4,6,8 **(Not Required)**

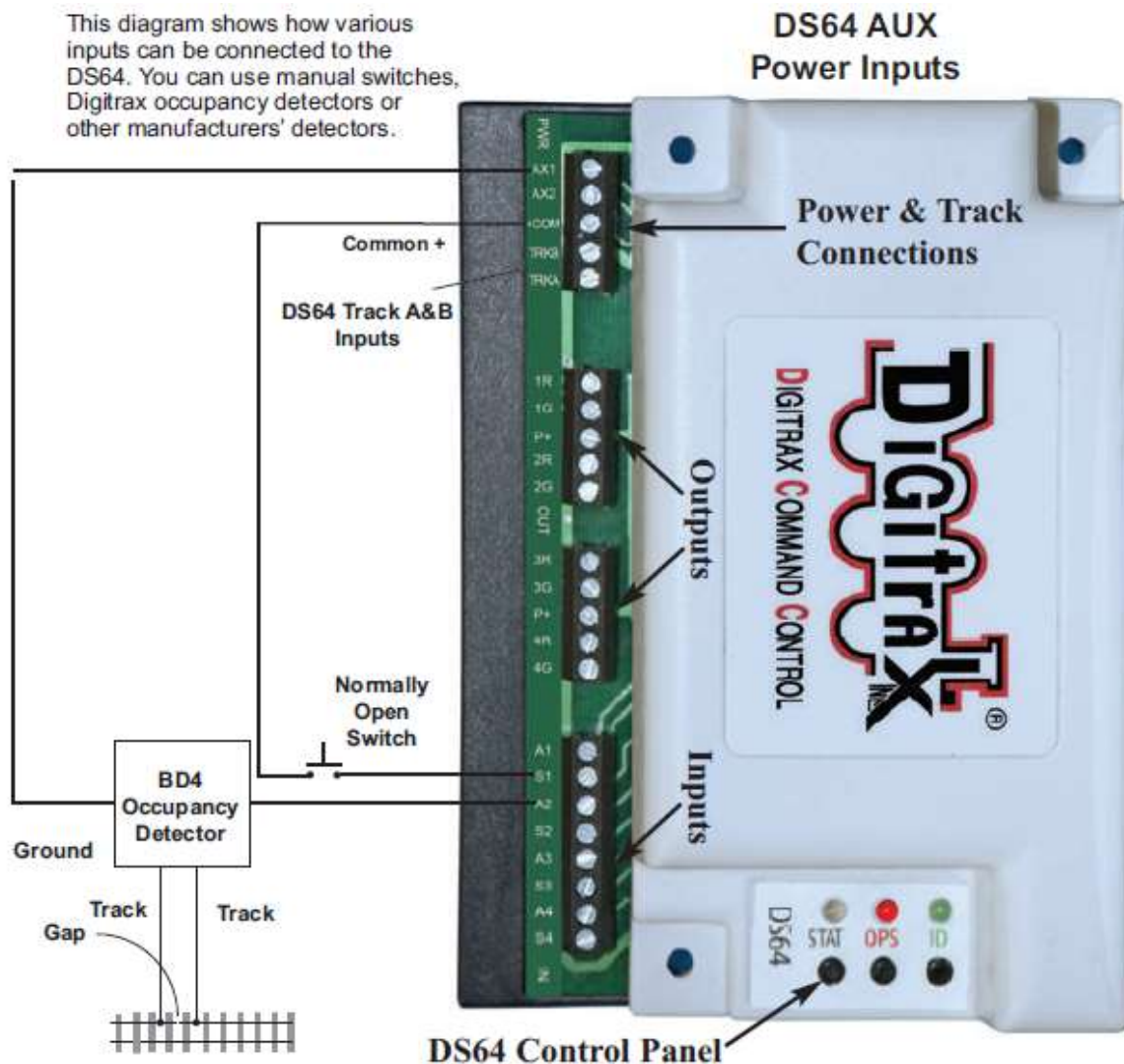


Figure 4: Connecting Input Devices to Your DS64

In order for the ECoS to recognise the DS64/BD4 inputs you have to assign a feedback board ID address for each DS64 used as follows:

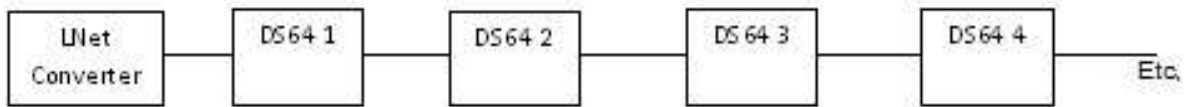
1. Press and hold the STAT button on the DS64's control panel down for 3 seconds approximately. The STAT LED will blink at a fast rate and after a further 10 seconds it will change to a slow blink rate, alternating between red and green. To enter board ID set up you must release the STAT button as soon as the blink rate changes or the DS64 will time out and you'll have to start again.

2. Use your DCC throttle in Switch mode or your command station, and select a Switch address between 01-256 and send a Closed or Thrown command. The LEDs will go off indicating that the Board ID has been set. To exit this mode, you must set a board ID.




Tip: Use a label showing the board ID for each of the feedback modules. This will help when connecting to Loconet.

Please note: The board ID address is NOT the same as the output addresses for point motors.

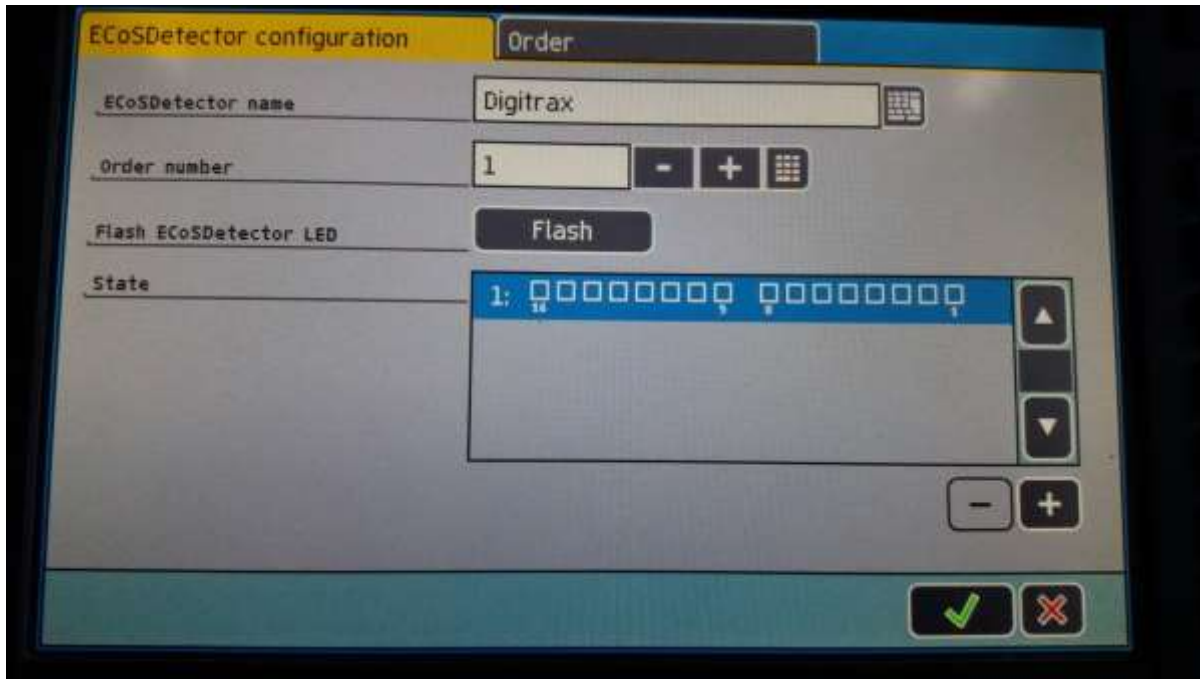
The individual Digitrax feedback modules are linked together by Loconet cables in a series chain using their sequential Board ID addresses through the **ESU LNET Converter (50097)**.



To enable the feedback information to be displayed on the ECoS screen proceed as follows:

- Open the set-up menu. 
- Select "Devices in the System" in the sub menu. 
- Select "BDL168" from the list in "Devices". 

Change the default name from **BDL168** to **Digitrax**.



The above image shows Digitrax 1 with inputs 1 to 16 from R to L.

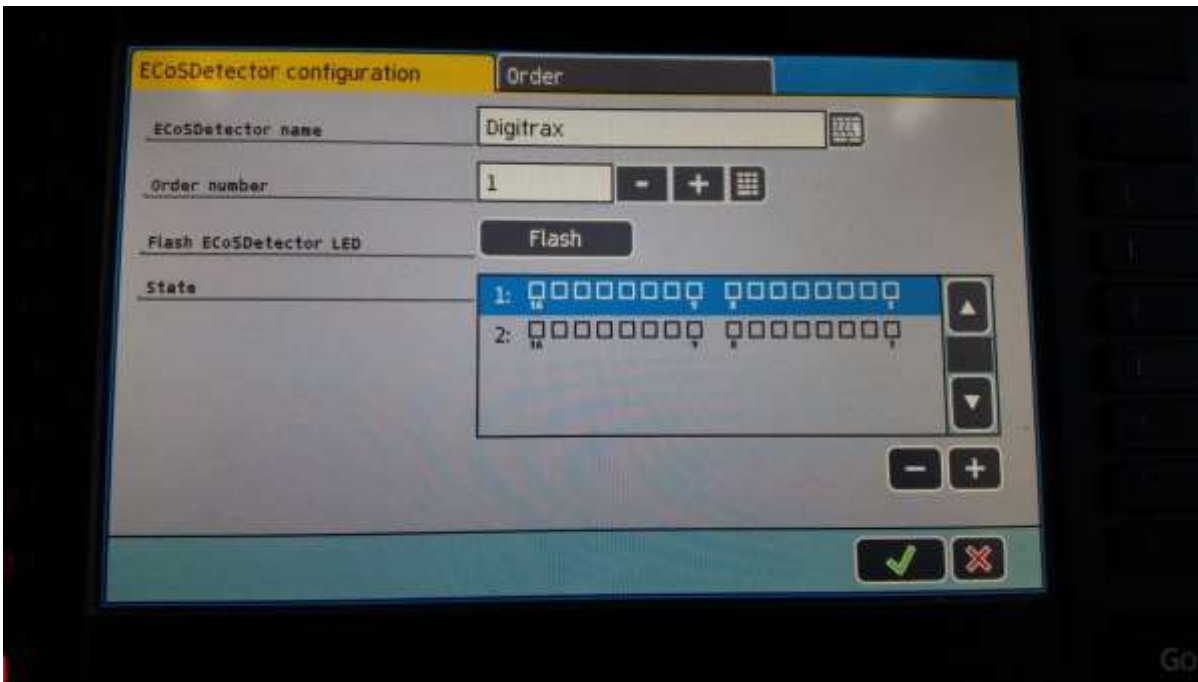
This actually equates to:

DS64 board ID 1 = Inputs 1 – 8 of which the connected BD4 will display inputs 1,3,5,7.

If a second DS64 were used, the Board ID would be 2 and use inputs 9 – 16 of which the BD4 would display inputs 9,11,13,15.

Note: Row one, Digitrax 1, is actually showing the total number of inputs available from two DS64 ID 1 & ID 2.

If more than two DS64s are required a second row called Digitrax 2 can be added just by pressing the + Key



The above image now displays two rows, Digitrax 1 & 2 with inputs 1 to 16 from R to L.

This actually equates to:

Row 1 (Digitrax 1)

DS64 board ID 1 = Inputs 1 – 8 of which the connected BD4 will display inputs 1,3,5,7.


DS64 board ID 2 = Inputs 9 – 16 of which the connected BD4 will display inputs 9,11,13,15.


Row 2 (Digitrax 2)


DS64 board ID 3 = Inputs 1 – 8 of which the connected BD4 will display inputs 1,3,5,7.

DS64 board ID 4 = Inputs 9 – 16 of which the connected BD4 will display inputs 9,11,13,15.

In order to display the feedback information on the pre-drawn track plan proceed as follows:

Open the track diagram 

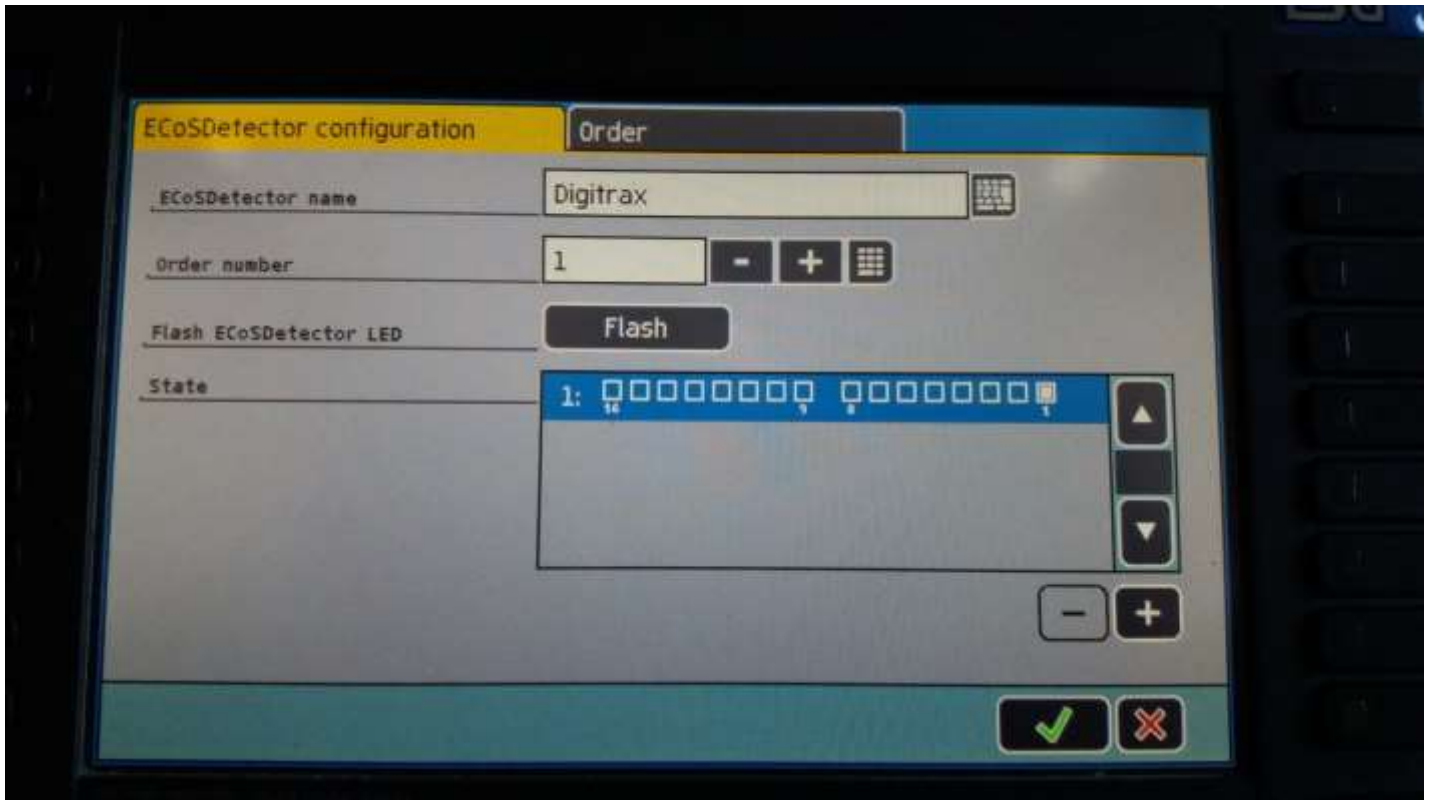
Enter Edit mode 

Select Highlight track 

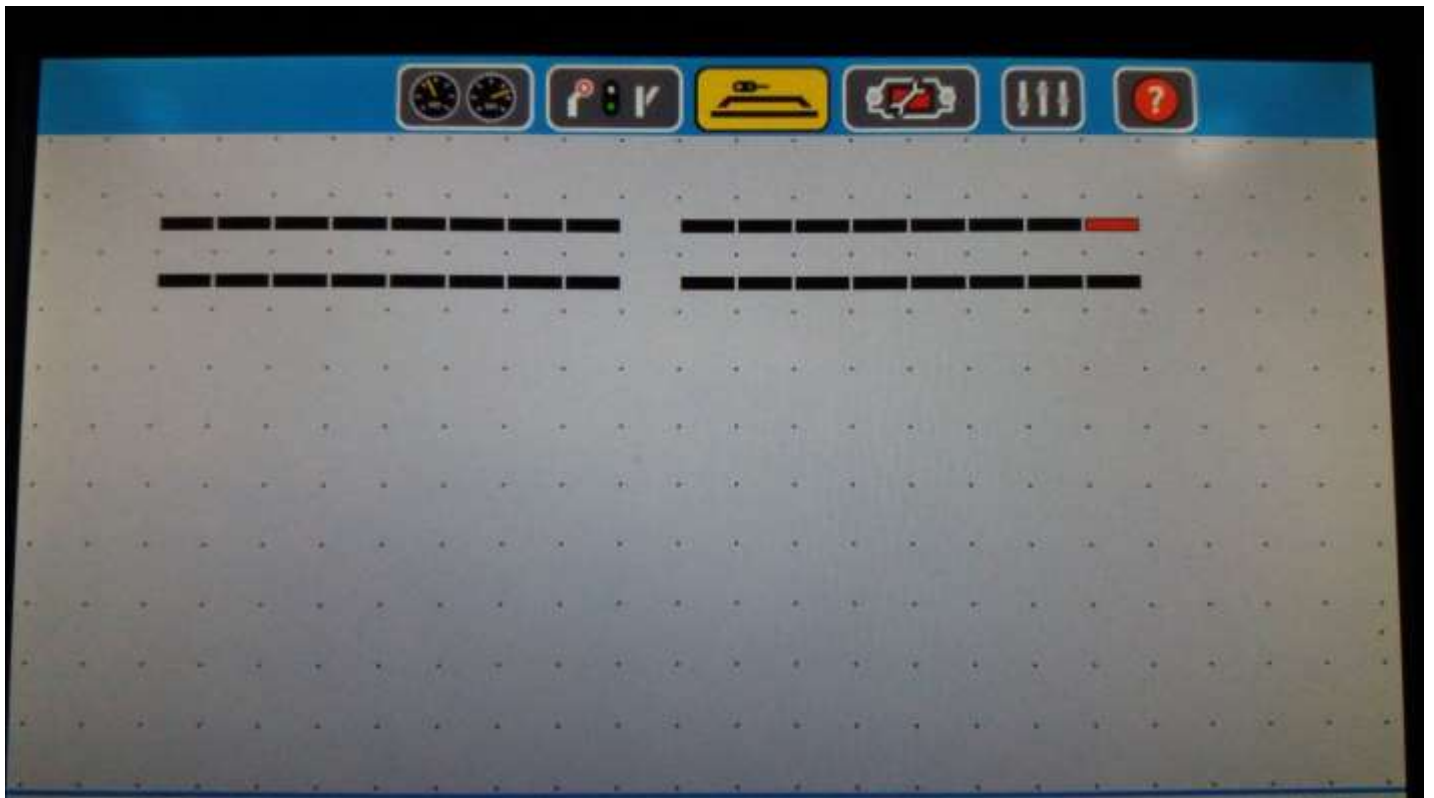
Selecting the track element required will allow you to choose either Digitrax 1 or 2 and which input to use.



With a Loco placed on the track and track power **ON** you should now be able to see the occupied track section in both the detector configuration window and of course the track plan.



The above image & below, now displays Input 1 of DS64 1



Note: If track power is turned OFF the highlighted elements will go out.