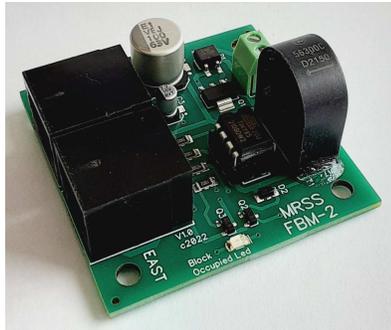


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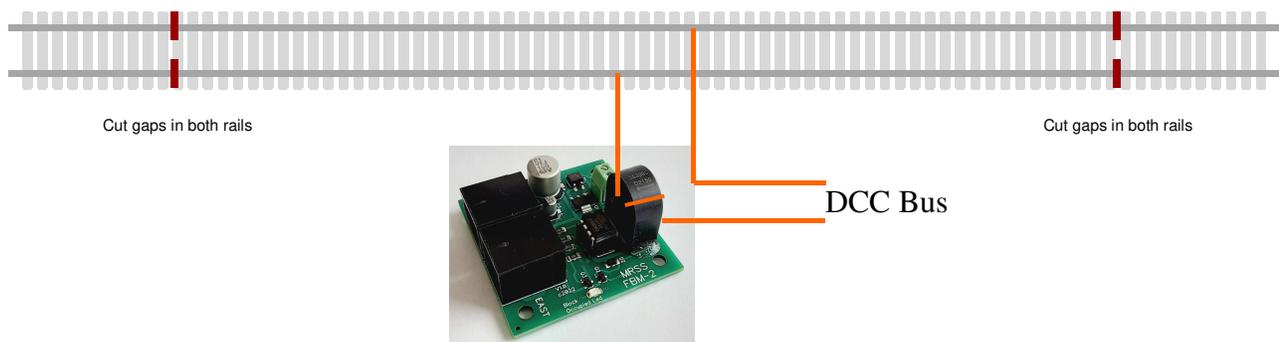
Free-mo Block Module - Installation Instructions

Board version 1.0



FBM-2

- Provides DCC Block Detection.
- Detects any rolling stock that draws current while occupying a block or section of track when connected to the FBM-2 board.
- Designed for the Modular Signal System used on Free-mo modules.
- Can be used on any layout, not just Free-mo.



Please read these instructions before you begin to ensure the installation is done correctly. Failure to properly connect the board may result in damage to the circuitry. Ensure all power is turned off before you begin the installation.

Handling of the circuit board

Use care when handling the circuit board. Most electronic circuits are sensitive to static electricity and can easily be damaged. Be sure to work in an area where static is not an issue.

STEP 1 – Mounting the FMB-2 board

Choose an area under your Free-mo module that is suitable for mounting the FMB-1 board. Keep in mind the length of your track feeders when mounting the board.

STEP 2 – Track Feeders

In order to detect current through the tracks, your track feeders need to pass through the air core transformers on the FMB-2 board as shown in Figure 1. Loop the track feeder through the hole twice or three times if more sensitivity is required for detecting your trains. Use care when feeding the wire through the transformer. Pulling on the wire while looped through the transformer will tear the transformer from the circuit board. This will not be covered under warranty. Recommended wire size is between 16 and 18 gauge.

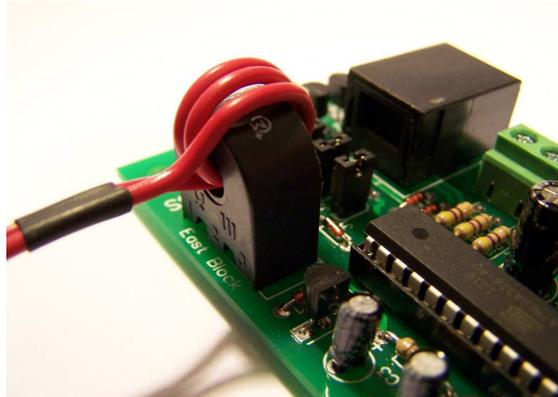


Figure 1

STEP 3 – Power Connections

The Free-mo Block Module has been designed to accept several different power supplies.

- A separate AC adapter that can supply 12 volts AC or DC.
- Connecting the board to the accessory bus.
- A 12 volt battery.

Warranty

All the circuits here are inspected and tested before they are shipped. If there is a defect due to manufacturing or programming, I will gladly replace your board for a new one within 90 days of purchase.

Misuse, abuse, or the use of cheap power supply to power these circuits which will cause damage to the board, is not covered by warranty. If you have any doubts about the use of any type of power supply, please contact me before applying power to your board.

Questions or Comments

If you have any questions or comments please send them to me by using the email address on the Model Railroad Signal Systems Website.