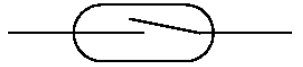


Using Track Magnets and Reed Switches to Automatically Trigger your Sound Board

A Reed Switch contains “reeds” which are closed together when in the presence of a strong magnetic field. In garden railroading, reed switches are often used to activate the sounds on a sound card. A magnet is located on the track. The reed switch, mounted on the underside of the train, is activated when it passes over the magnet. Typically, we use two reed switches, one for the whistle and one for the bell. The magnets are placed on track between the rails offset to either the left or right side. Typically, the right side (Engineer’s side) is used for the whistle and the left side (Fireman’s side) is used for the bell.

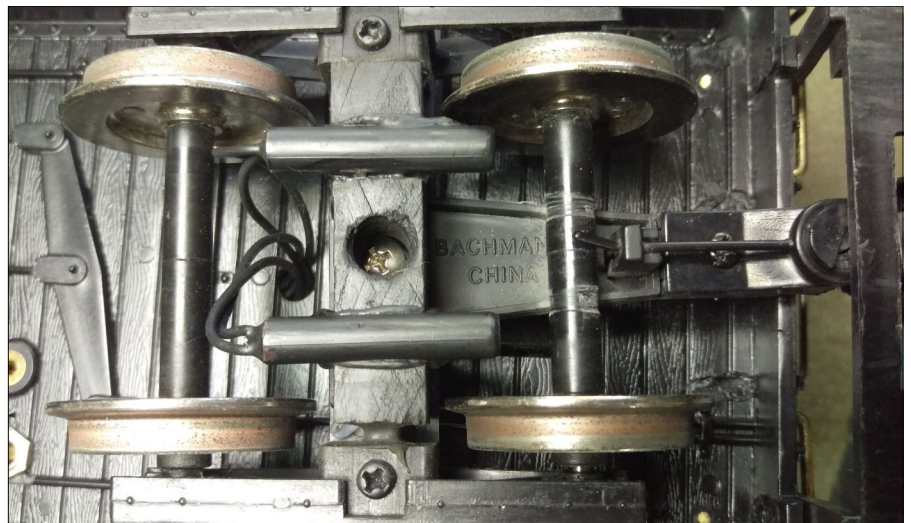
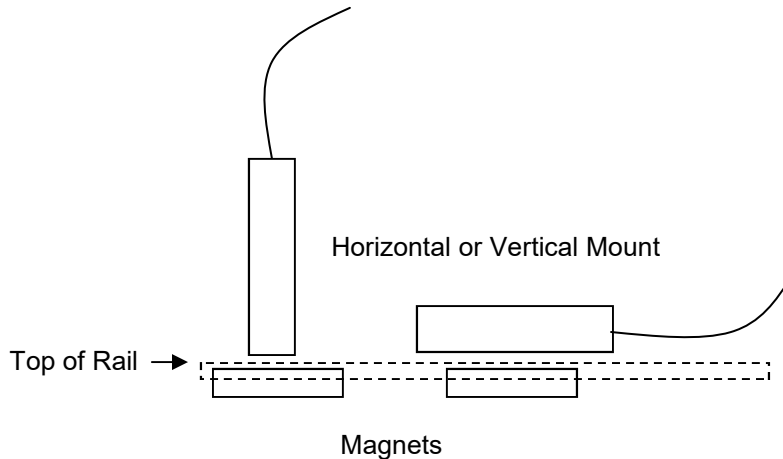
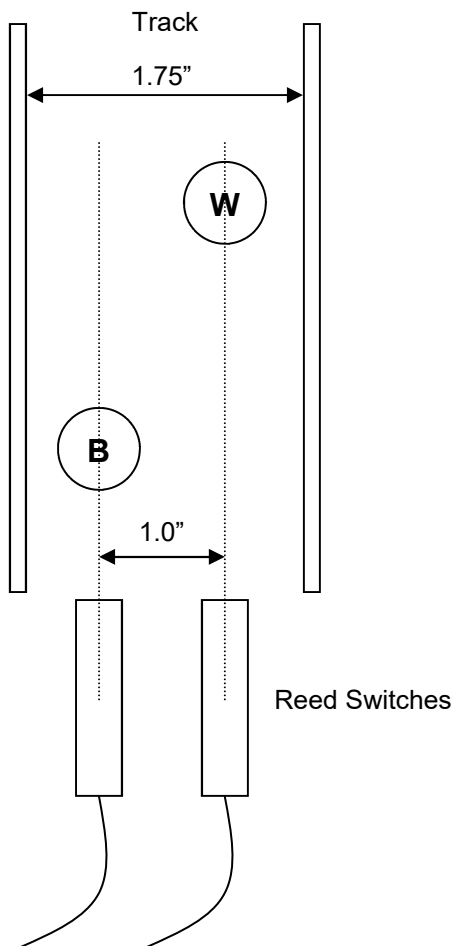


The gap between the magnet and the reed switch should be $\frac{1}{8}$ " or less". Try to mount the magnets just under the top of the rail, and the reed switches just above the top of the rail. (Mounting the reed switch below the top of the rail will result in it hitting the turnout rails.) The $\frac{1}{2}$ " diameter magnets you find at the local hardware store will work fine. Locate the magnets just under the top of the rail.

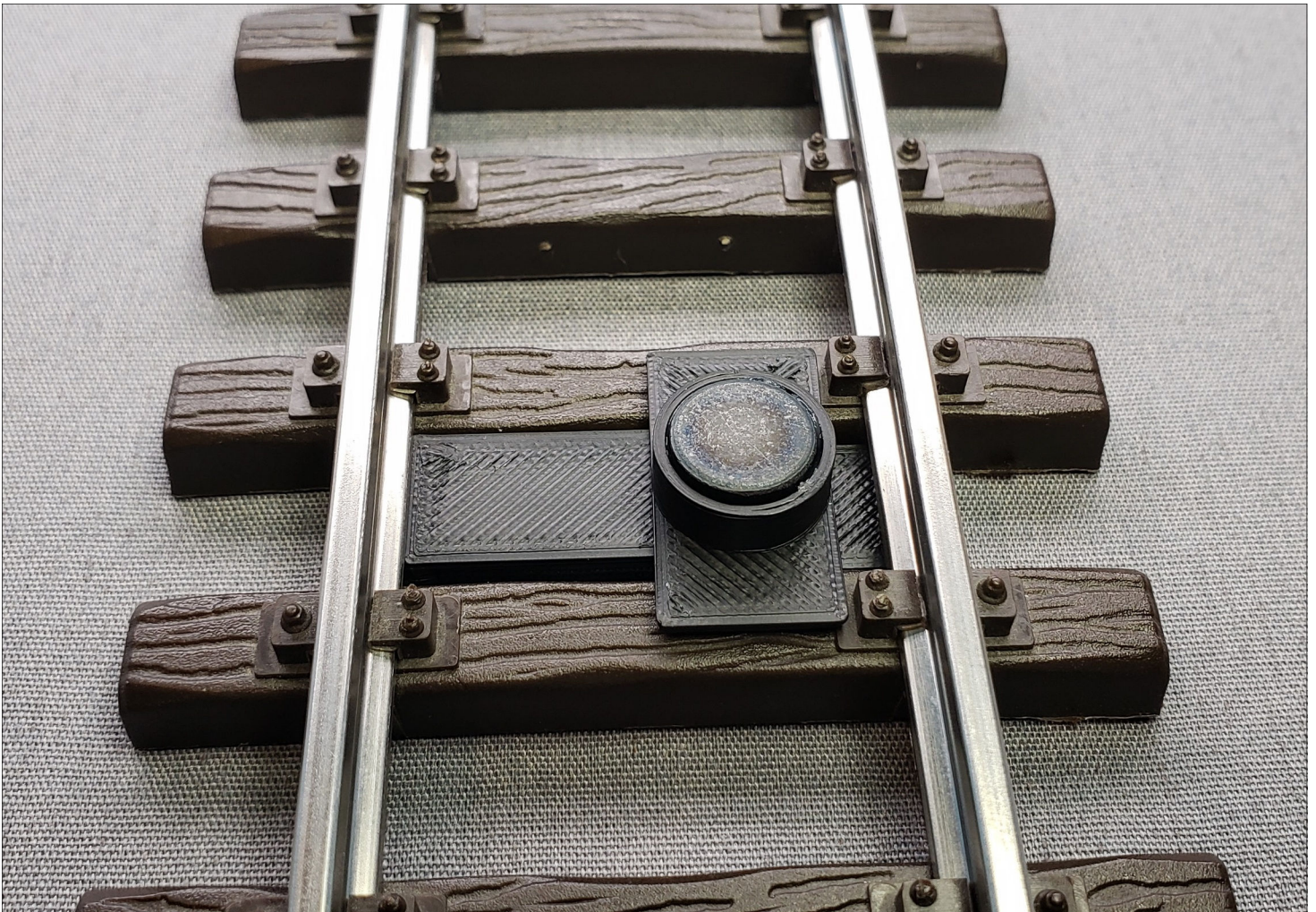


The reed switches can be mounted either horizontal, parallel to the track; or vertical, perpendicular to the track. Typically horizontal when mounted underneath the truck of your rolling stock, and sometimes vertical when going through the floor of rolling stock.

You can also use reed switches with magnets mounted on the backs of wheels or glued to an axle to synchronize the chuff of a sound board with the wheel motion. Four magnets will produce 4 chuffs per revolution. However, to avoid the chuff just turning into a blur at running speed, you may want to use just 2 magnets to keep the distinctive chuffs.



Bell and Whistle reed switches mounted under the truck of a tender. A bracket was made to mount the reed switches under the truck to achieve proper alignment over the track magnets, while still leaving access to the bolster screw.



Our G-Scale Graphics Track Magnets lock into the rails and between the ties. They can quickly and easily be turned around or moved to a new position until your trigger function occurs at just the right spot.

Magnet alignment will always be at the perfect height (just below the rail) and offset from center (0.5" offset, 1.0" between left/right reed switches).

