

# Improve Knuckle-coupler Reliability

If your garden railroad varies, in terms of bumps and slopes in the track, and your couplers sometime open unexpectedly; this minor modification may help reduce unwanted car separation. Improving the reliability of a basic Bachmann knuckle coupler, with a plastic pin, can be achieved with this simple technique.

The solution involves placing a spring between the coupler body and the locking pin, as shown in photos 1 and 2. The spring is from an old 3.5" computer floppy disk. If you do not have any old/used ones available perhaps ask at a computer repair shop or check your local thrift store.



Photo 1

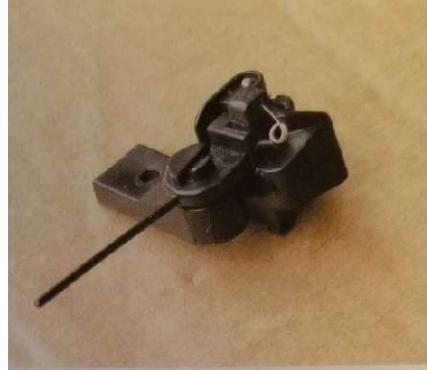


Photo 2

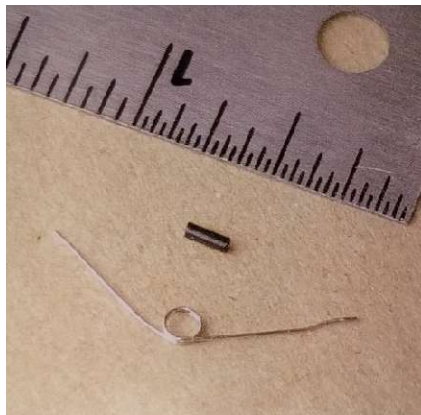


Photo 3



Photo 4

Drill two small holes in the coupler body and locking pin as shown in photo 4. Drilling the hole in the locking pin at a slight angle will make the spring stay in position better. Photo 4 also shows the holes with wires through them just to clarify the position and orientation of the holes. The ends of the spring will have to be straightened, or trimmed off, to get them into the holes.

Cut a small piece of wire insulation about 1/8" long and slide it over one end of the spring. This will help hold the spring in place. Photo 3 shows the spring and the insulation, along with a ruler for scale. Insert the spring into the two holes, placing the end with the insulation into the body, then bend over the end of the spring inserted into the locking pin to keep the spring from falling out.

This works well keeping the cars coupled by providing extra force to hold the locking pin in the locked position while trains are running. The coupler has been removed from the car for clarity, but if you are careful, and space is available, you can perform the modification while the coupler is still mounted on the car.