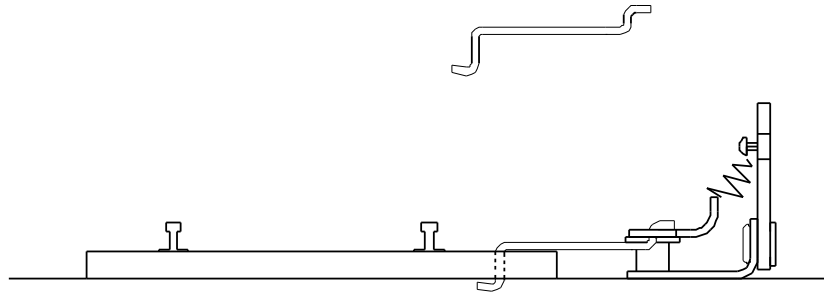


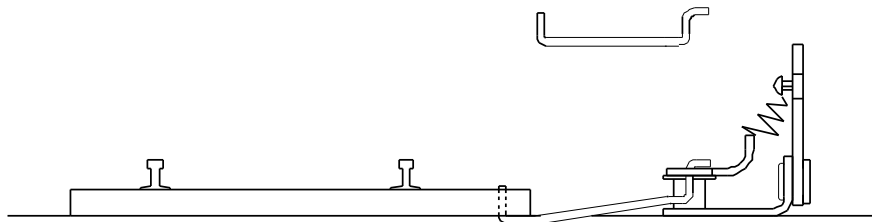
Bitter Creek Models B-4001 Manual Ground Throw Installation Notes

The illustrations below show two of the possible ways of forming the .024 linkage wire throw rod. Much depends on the actual installation; thickness of switch ties and throwbar, use of shims, ties, or spacers under the ground throw, distance that the ground throw is mounted from the turnout, roadbed material, etc. The wire may be trimmed to allow for closer mounting or, alternatively, a longer wire may be substituted.

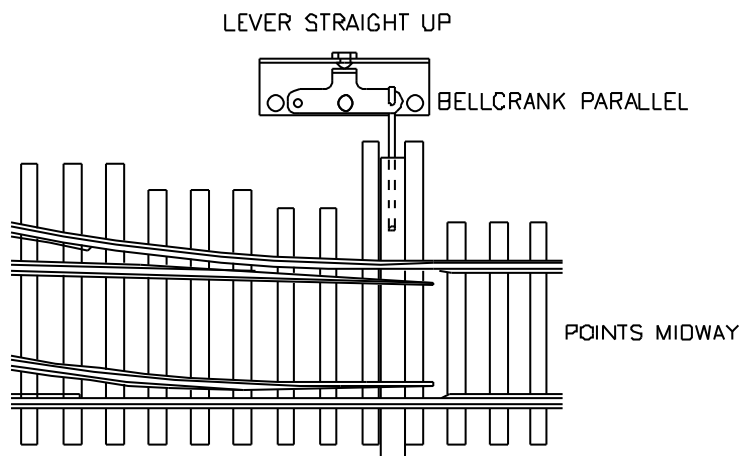
The first installation uses a reverse curve on the end which goes down into the switch throwbar hole from above. This is useful for installation on a turnout that is already in place. Note that it may be necessary to bend the end of the wire under the throwbar slightly upwards to prevent it from digging into the roadbed. In many cases this won't be a problem. Alternatively it may be necessary to use an Xacto knife or other such tool to cut or form a groove in the roadbed under the throwbar that the wire can work back and forth in.



The second method bends the opposite end of the wire throw rod up in a 90 degree bend. This slips under the throwbar or, with a longer piece of wire, can be carried into the throw bar pivot between the switch points. This is most useful when installing the ground throw and turnout at the same time. Some variation may be necessary from that shown in bending the throw rod to fit. And again it may be necessary to carve out a groove for the throw rod to work in.



However the ground throw is setup it is most important for proper operation that the installation be made as shown in the following illustration.



Once the ground throw is attached to the turnout via the wire throw rod, set the ground throw lever straight up and the bellcrank parallel with the track centerline. Move the ground throw in and out until the turnout points are midway between the stock rails. Mark the mounting hole location, drill the pilot holes, place the ground throw and secure with the #0 screws.