

Getting started

Thank you for purchasing a *Logic Rail Technologies* product! Please familiarize yourself with all the instructions prior to installing this product. If you're using this servo motor with our *Grade Crossing Pro/2* then you will need to reference those instructions too. If you're using another grade crossing controller (seriously, why would you?!) then please refer to that controller's instructions for details on connecting the servo motor and adjusting its movement.

What's included in this kit

This kit includes the following items as shown at right:

- SG90-class 9g servo motor (brand/manufacturer may vary!)
- Servo shaft attachments (commonly called "horns"), horn set screw, two servo mounting screws
- 3D-printed mounting bracket with two #4 x 1/2" screws
- 6" x 0.020" diameter music wire (not shown)
- 6" x 0.025" diameter music wire (not shown)



Attaching the servo motor to the mounting bracket

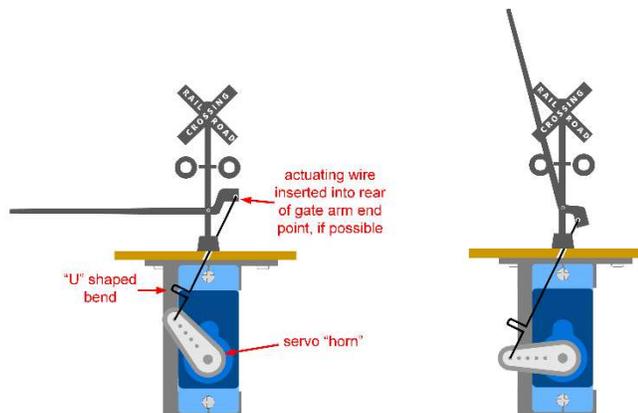
The servo is attached to the mounting bracket using the two small screws found in the bag with the servo horns. The pictures at right show the proper orientation of the servo into the bracket. Note that the gears and wires must be oriented towards the bottom of the mounting bracket.

When attaching the screws make sure you only tighten them until they are just snug. Overtightening can cause damage to the servo body or the mounting bracket and void your warranty.



Choosing the right wire size

In case your crossing gates did not come with actuating wires we have provide you with 6" lengths of two different diameters. Feel free to use either size but we would recommend the 0.020" diameter for N scale and the 0.025" diameter for HO scale and above. Do NOT cut the wire to length at this time! Please refer to the grade crossing controller instructions for specific steps. When it DOES come time to cut the wire we would recommend some heavy duty cutters and not your best diagonal cutters; the strength of this wire might damage the cutting edges! Ultimately your installation will look something like the illustrations at right.



Attaching the mounted servo under the layout

Once you have drilled the hole for the actuating wire to pass through (refer to the grade crossing controller's instructions) and have done a test fitting into the servo horn you can mark the mounting holes for the bracket. It is recommended to drill two shallow pilot holes before attaching the bracket to the underside of your layout. Use the two #4 x 1/2" screws provided in this kit. Tighten the screws until they are snug; overtightening can cause damage to the mounting bracket and void your warranty.

Warranty

This product is warranted to be free from defects in materials or workmanship for a period of one year from the date of purchase. **Logic Rail Technologies** reserves the right to repair or replace a defective product. The product must be returned to **Logic Rail Technologies** in satisfactory condition. This warranty covers all defects incurred during normal use of this product. This warranty is void under the following conditions:

- 1) If damage to the product results from mishandling or abuse.
- 2) If the product has been altered in any way (e.g. soldering to the circuit board).
- 3) If the current or voltage limitations of the product have been exceeded.

Before returning the product to us for warranty service please contact us by phone or email. We will advise you as to what steps to take. Except as written above, no other warranty or guarantee, either expressed or implied by any other person, firm or corporation, applies to this product.

Technical Support

We hope the preceding instructions sufficiently answer any questions you might have about the installation of this product. However, technical support is available should you need it. You can reach us via phone or email; our contact information can be found on the top of page 1.