

## WARRANTY

Bridgewater provides technical support free of charge, regardless of how long you have had your controller. Sometimes an issue can be fixed over the phone, saving the cost of shipping and getting your railroad running faster.

Parts and labor are warranted for a period of 5 years. If your Bridgewater Product requires repair, ship it back to Bridgewater, We will repair or replace it and return it to you. If your warranty has expired, or is not registered, there will be a charge for repair and shipping.

If a unit is returned for repair and no problem is found, there will be a \$25 service charge.

**Return Freight Policy:** Customer is responsible for return freight; you will be advised the amount when your unit is ready for return.

Warranty does not cover repairs to damage caused by misuse or abuse. Please do not leave this product outdoors: unplug the quick disconnect plugs and bring it indoors when it is not in use.

Be sure to keep the packaging just in case your unit ever does need to be returned for service. Some of our products are very heavy, and the special packaging is designed specifically to protect the internal parts and cosmetics of the product.

Please take a moment to fill out the Warranty card in the box or online at [Bridgewater.com](http://Bridgewater.com) and return it to us.

Thank you.



## Mag Mate

Auxiliary Controller

User Manual



**BRIDGEWERKS**  
901 N Brutscher St Suite D383  
Newberg, OR 97132  
[www.bridgewater.com](http://www.bridgewater.com)

Family owned and operated since 1995

# Mag Mate Features

- **Connections:**

On the rear of the Mag Mate there are two pairs of connectors—one is labelled 'TO TRACK' and the other is for the connection to your power supply. The power source can be any 18-26VDC power supply, such as a Bridgewater power controller, or a Mag-15 power supply. Your Mag Mate came with a short cable with 'banana plugs' on either end—plug one end of this cable into the back of the Mag Mate, and the other into the accessory power output of your power controller. When doing this be careful to match red to red, and black to black. The second pair of terminals is to connect the Mag Mate to your track. If the track is connected with the red on the right rail, and the black on the left rail, then the train will move forward when power is applied. If it goes backwards, you can just flip the banana connector over to reverse the polarity.



- **Speed Governor:**

Bridgewater's exclusive "speed-stop" can be used as a safety device to limit the maximum speed of your trains. The speed stop consists of a metal plate which is held in place with a thumb screw. To adjust the

- **Momentum:**

The Mag Mate features an adjustable momentum control which will limit the acceleration and deceleration of the trains. When momentum is at maximum and you move the throttle from the minimum to the maximum, the train will slowly accelerate from a stop to the maximum speed. Similarly if the throttle is moved quickly from maximum to 0, the train will slowly decelerate to a stop. Momentum adds another dimension of realism to your model railroad. In addition, the combination of speed governor and momentum makes it easier to limit derailments when younger engineers are at the controls.

- **Direction Control:**

The Mag Mate has a direction control switch which will change the direction of the locomotive. If the locomotive runs backwards when the switch is in the forward position, reverse the connections going to the track.

- **Overload Protection:**

In the event of an overload, the Mag Mate has an automatic thermal cutoff inside the controller, which will be activated in the event of an overload. This will reset itself automatically in 2-3 minutes after the cause of the overload is removed.

- **Wire:**

Use heavy gauge wire to connect your power controller to the track. For distances of up to 15 feet, you should use 12 gauge wire. For distances over 15 ft, you use 10 gauge wire. Although the track itself is similar to a very heavy gauge wire, in larger layouts, significant loss can occur from the connections between sections of track. To improve this, run multiple power connections to the track from the controller and/or use track clamps rather than slider type couplers. In outdoor layouts which are exposed to extreme temperatures, the track will expand and contract as the temperature changes, and slider type couplers may have to be used.

- **Outdoor operation**

Garden railways are often installed outdoors and Bridgewater controllers are built to be used with outdoor railroad layouts. However, they are not waterproof, and as with any electronic equipment, **they should not be left outdoors when not in use.** To make this easy, the connections are all made so that they can simply be unplugged and the controller can be carried indoors.