

EZTronic Enhanced Servo Kit

Advanced Technology for Turnout control

Introduction

Our chosen micro servos are rugged and appropriate for robotic use. They should provide a very long life on your layout. This kit comes with everything you need to support a turnout that uses a metal frog. This kit includes a relay, which when used automatically provides the proper polarity of power to the frog.

Our turnout solution uses a paperclip to form the actuator that is tied to the servo horn. The paper clip has proven to be a very good source for a reliable actuator. It is strong enough to move even a stubborn pair of points on a switch and it fit the center of commercially available HO turnouts. We provide three different horns in our kit, use the one you prefer. Our Installation manual provides full details on how to prepare your turnout, wire the relay to the switch and more.



Product Overview

Unlike stall motor machines, this servo-based solution allows for precise locating of the bracket at the turnout. This is accomplished using our unique alignment tool which allows you to align the bracket exactly where it needs to go and can be accomplished from either the top or bottom of the turnout location. No more guessing. The template is included as part of the HO Turnout Controller when you purchase it. In addition, this kit is optimized for automatic voltage polarity to the frog when using this kit. There is no need for additional cost of any short circuit detectors which change polarity when shorts are detected. See complete details in our Installation Manual and our Q&A section relating to our advantages when using this relay.

Key Features

- Goof-proof alignment: Get your turnout bracket perfectly aligned. Refer to our Installation Guide for complete details on how to use our alignment tool and how to form the paper clip to attach to your servo horn.
- Custom 3D printed bracket: The bracket takes into consideration several key features including support for three specific servo mounting heights depending upon the thickness of your roadbed. Our bracket supports mounting locations for ¼”, ½” and ¾” roadbed thicknesses.
- Pre-drilled bracket holes: Our brackets can readily accept a standard #6-32 bolt or screw by simply holding the bracket and starting the screw. You can purchase the appropriate length of this common screw for your specific application. We find it useful when we are aligning the bracket from the top of the table surface as one hand holds the bracket underneath while the other can screw into the bracket from the top. See our Installation Manual for all details and options.
- Full horn kit: We provide 3 horns for use with your servo motor. We normally use the single straight horn. Note, you may choose any of the horns we include that may work out best for your application. All servo mounting hardware and horn mounting hardware is included.
- Relay Included: Our enhanced bracket provides a neat and clean way to mount the relay near the turnout. This is an ideal location for the relay and makes it easy to wire.

Technical Specifications

- Servo Input Voltage: 5VDC as provided by the EZTronic HO Turnout Control Board
- Servo control: Pushbuttons – alternate action of each button. Buttons are all NO/MC type (Normally open/momentary close) and logic for operation is provided by our HO Turnout Control board.
- Servo Centering Feature: To assist in alignment, we provide a “servo centering feature” which allows you to center the servo’s position prior to installing the horn assembly. This helps with initial alignment at the turnout location on your layout. (Hold down button-1

before power up causes all servos to “center” to assist in alignment of horn(s) prior to installing bracket on your layout) Read complete details in our Installation Instruction Manual

- Automatic relay control: Our Controller automatically switches the frog power to the proper voltage – no more guessing and no need to spend additional money on short circuit sensing polarity reversal boards.
- High current support: Many stall motor solutions have wipers that can be used to switch frog polarity when actuated. Unfortunately, not all of them are capable of handling the possible current that will be present at the turnout. Our relay is rated up to 10A and is optically isolated to prevent damage to components of this system.
- Relay Input Voltage: 5VDC as provided on the EZ Turnout Control Board
- EZTronic Part Number: EZ-Enhanced Servo-Kit