American Flyer #490 3/16-0 Whistling Express Car & Control Button Tutorial

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Table of Contents

1. History and brief theory of operation
2. Internal hardware photo and car wiring diagram
3. Control button wiring diagram and hookup directions
4. Control button upgrade and photos
5. Contact info and acknowledgements

1. The American Flyer #490 Whistling Express Car was manufactured by A.C.Gilbert in 1940 and 1941. A gunmetal gray finish was made In both years while a blue finish version was made only in 1940. Its design Is unique as a quick push of the control button turns the whistle either on or off. This feature is triggered by a short burst of DC voltage generated by the button, which actuates a DC relay in the car. The relay steps an E-Unit through an alternating on-off sequence of power to the whistle motor.

2. The car wiring diagram below was derived from reverse engineering by the author

![Car internal hardware](image-url)
3. Control Button Wiring Diagram and Hookup Directions
4. It has been my experience that the selenium rectifier inside the control button often fails over time. An easy fix is to replace the rectifier with a solid-state diode. A Radio Shack epoxy 3 amp rectifier diode 1N5402 is an ideal replacement. The Radio Shack part # is 276-1143. See photos below:

5. Please feel free to contact me with questions and or comments at ray.the.k@prodigy.net.

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