

## Background

Beginning in 2005, regulations were enacted requiring freight railcars and locomotives operating in the United States to have reflective material applied to their sides in an effort to improve grade crossing safety. Between 2007 and 2015, these yellow or white markings were phased into service. Freight railroads have complied with these regulations in different ways, and in some cases, modifying the paint scheme to conform.

Many railroads have chosen to utilize full-length stripes along the locomotive frame sill, while others

have simply utilized short strips (similar to those used on freight cars) spread out along the length of the locomotive sill to comply.

These easy-to-apply, self-adhesive strips replicate those applied to the prototype locomotives. Unlike decals or factory-printed markings, these strips will actually reflect light, including camera flash, daylight, and ambient layout lighting, adding another level of realism to your locomotive fleet.

The sheet consists of 80 linear inches of 3" and 4" scale width stripes (580 scale feet each) along with 100/each scale 4"x18" reflective strips.



Newly-delivered ET44AH #3291 shows off its YN3 ("Dark Future") paint scheme. Barely perceptible in this photo is the 4" frame stripe running full-length, as it blends in with the dark yellow frame sill paint color.

## Installation

These stripes and strips can be applied to almost any model, whether brand new or weathered and graffiti-ed. Tools required include tweezers, a measuring device (dividers, calipers, or ruler), a small blunt object such as a toothpick, and (optional) flat finish.

Begin by placing the model on its side with adequate cushion to protect details. Two methods can be used to install the reflective strips - they can be installed beneath the handrail stanchions or cut to fit between the stanchions or other details.

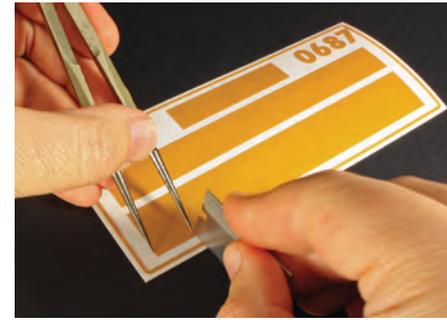


To place the reflective stripes beneath the stanchions, begin by gently prying the stanchions loose from the model.



With the stanchions loose and out of the way, measure the length of the desired stripe segment. This can be done with calipers, ruler, or dividers, as shown above.

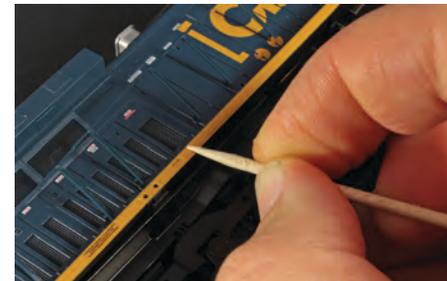
## Instructions, cont'd



Transfer the measurement from the model to the reflective material sheet and cut to length.



Gently remove the stripe from the backing material with a pair of tweezers. Position the stripe on the model. For longer stripes, position one end in place and gently rub down a short length. Pull the opposite end taut, and burnish the stripe into place, working from the tacked-in-place end toward the end pulled taut.



Once in place on the model, the reflective stripe can be adjusted slightly to get it into the desired location. When satisfied with the location, burnish the stripe onto the surface of the model with a small blunt object such as a toothpick. Sharp objects or metallic items that may scratch the surrounding paint on the model are not recommended.



For locations where the handrail stanchions were removed, use a pointed tool, such as tweezers or dividers to puncture a hole in the reflective material. The stanchion can then be reattached.

To blend the strips into the model, a flat finish and weathering may be applied over top of the stripes. Once satisfied with the model, add it to your layout and enjoy the reflective qualities of these strips!

## Application Guide

The basic application requirements for reflector placement per FRA 224 are below:

Car or Locomotive Length	Area of Yellow Sheeting Required (Square Feet)
Less than 50 ft	3.5
50 ft. to 60 ft	4.0
Over 60 ft. to 70 ft	4.5
Over 70 ft. to 80 ft	5.0
Over 80 ft. to 90 ft	5.5
Over 90 ft. to 100 ft	6.0

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This product intended for ages 14+.

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