



Casting and Making Custom 3-Color LED HO Signals

By Bob Rohwer

Two Clinic

**Signals on the Sacramento Model
Railroad Historical Society**

Making Polyester Casting

SMRHS Signals

**2006 Prototype Signal
Class 5 brass Parts**

**Head, base are polyester
casting**

**red, green, mixed to make
yellow**



SMRHS Signals



Signal Bridge
Modified Bachmann
Plasticville Signal Bridge



Signal with Control Box
Showcase Miniature
Parts



Modified NJ International
Cantilever Bridge

SMRHS Signals



Custom WP Short Signal

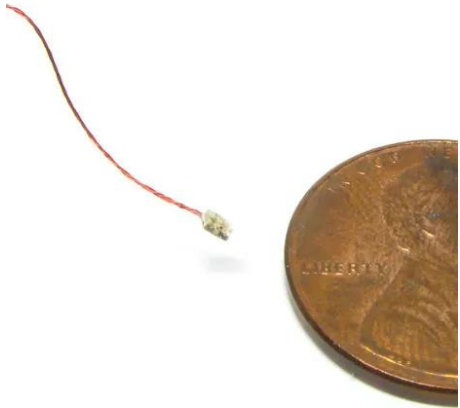


Custom Dwarf Signal

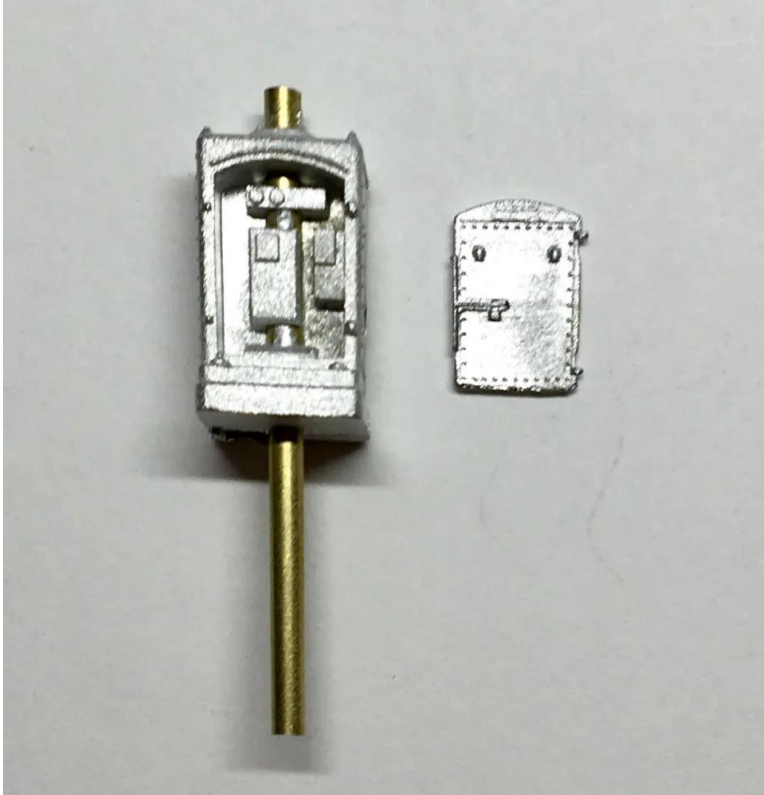
SMRHS Signals Parts



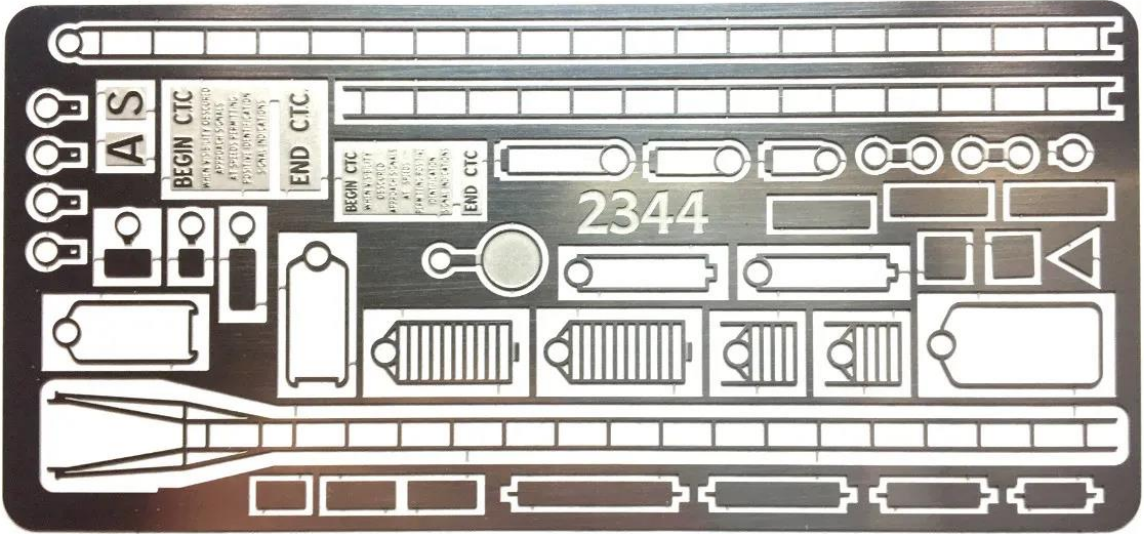
Target



606 RGY LED



Control box



Ladder Parts

All Parts are from Showcase Miniatures

SMRHS Signals

Since 2006 HO signal Sources have changed

Signal Sources

Showcase Miniature

[https://www.showcaseminatures.net/ho scale/ho scale signals wigwags trackside details/](https://www.showcaseminatures.net/ho_scale/ho_scale_signals_wigwags_trackside_details/)

Class 5

<https://spdaylight.com/class-5/>

Atlas

<https://shop.atlasrr.com/c-1103-ho-signal-system.aspx>

BLMA

Be sure that the signal will take a 605 LED. Sources of LEDS are an issue. Red, Green, Yellow LED are Special order.

Casting Your Own Parts

Make the Pattern

Make the Mold

Cast the Part

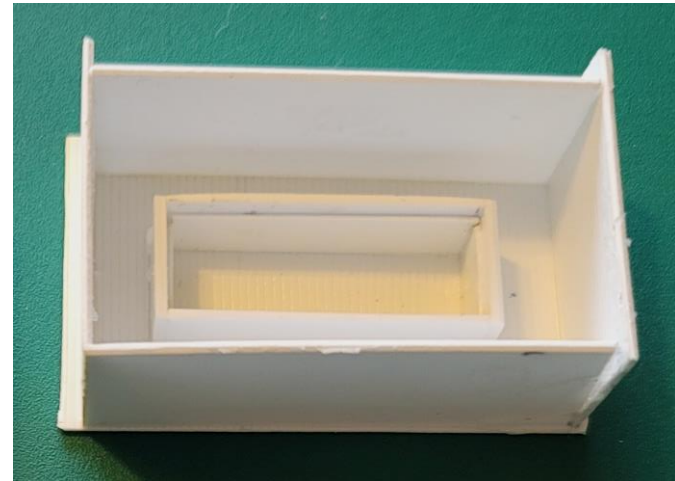
More Advance Techniques

Make the Pattern

Make pattern out of any Material. Must have a flat surface



Build a box around the Pattern. Glue flat surface to the base



Make the Pattern

Making the Mold

Mold Material:

Latex - rock molds

RTV Rubber – Stiff

Silicone – Flexible



Source: Tapp Plastics - www.tapplastics.com

Making the Mold

Pouring the mold:

Silicone A and B - .6 oz per cup

2 one ounce graduated cups

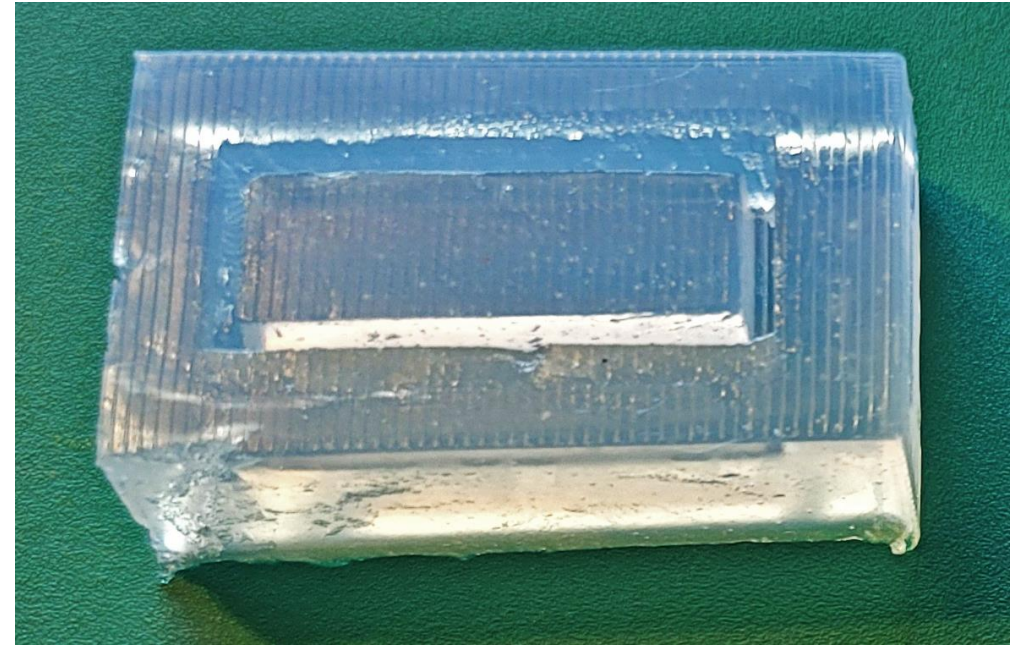
1 two ounce graduated cup

- 1. Pour A and B into 2-ounce cup.**
- 2. Mix thoroughly in a circular motion.**
- 3. Pour over pattern slowly holding cup high over the pattern.**



Making the Mold

Finished Silicone Mold



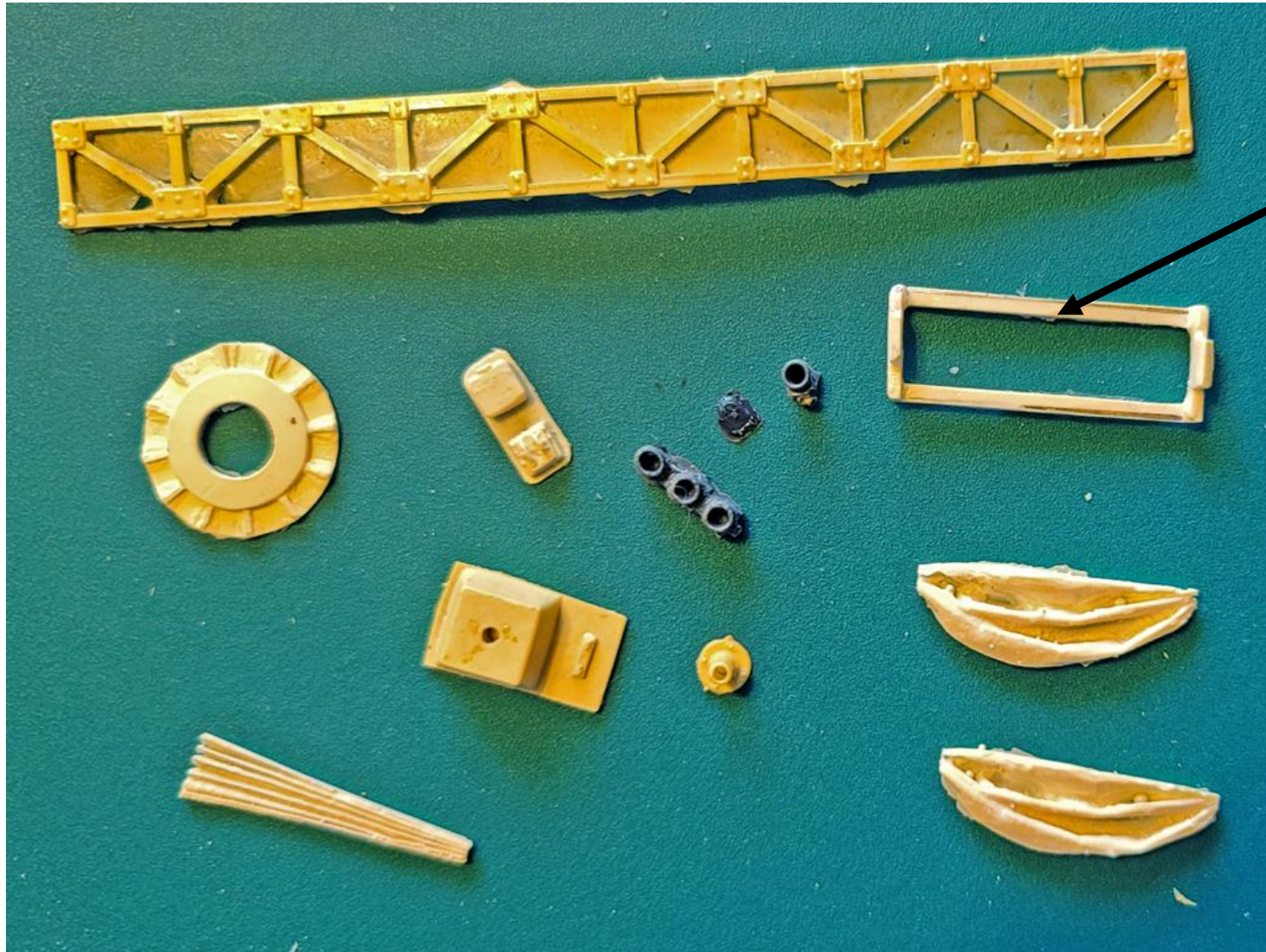
Trim edges on bottom

Casting the Part

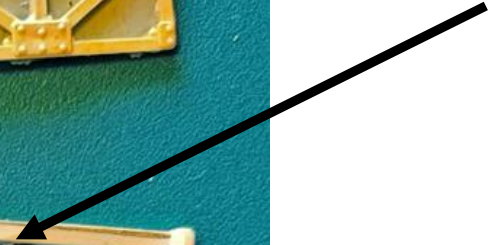
2. Casting
3. Layout the mold and acrylic ends sprayed with release.
 - a. Pour equal parts of the polyurethane into syringes.
 - b. Squirt syringes into a mixing container, stir thoroughly without making bubbles.
 - c. Pour into mold, work out any bubbles. Place acrylic on top and bottom working out excess polyurethane. May want to clamp.
 - d. Remove part from the mold.
 - e. Clean up with a file.



Samples of Castings



Wire reinforcing



Advanced



Pressure Tank



Vacuum Tank

Bubble removing is important.

Vacuum removes bubbles from Mold

Pressure removes bubbles from Casting



Sacramento Model Railroad Society, Inc.

**A PDF of this Presentation will be
posted on the SMRHS Site.**

<http://www.smrhs.com/>