HO Scale 1:87

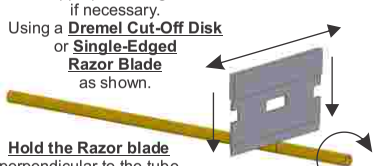
2195, 2196, 2197

SHOWCASE Miniatures

DWARF SEARCHLIGHT SIGNAL

Practice
this technique on scrap tubing as necessary.

A
Cut the brass tubing for the mast to the appropriate length if necessary.
Using a **Dremel Cut-Off Disk** or **Single-Edged Razor Blade** as shown.



Hold the Razor blade perpendicular to the tube rigidly with your wrist "locked".

While pressing down with light pressure to begin with, roll the tubing with the razor blade back and forth on a **hard surface.**

After a few rolls, the tubing should snap off cleanly.

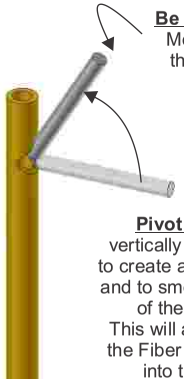
The end of the tubing may need to be opened using a 1/32" drill bit.

Prepare the Opening For the LED Leads.

A
Mark the locations of the opening on the mast using the **Diagram**.

B
Mark the locations of the opening on the mast using the **Diagram**.

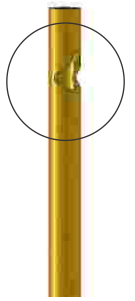
C
Using a Dremel Cut-Off Disk or triangle file, cut a groove where the LED wire leads will enter the mast.



Be Sure Not to Cut More than ½ way through the tube

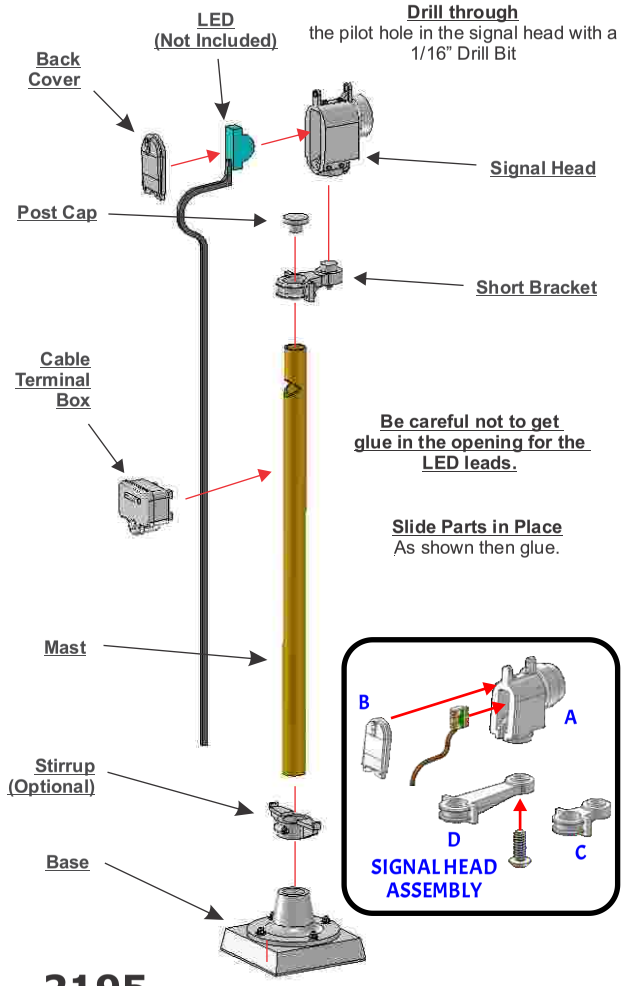
D
Drill the center of the Groove, with a 1/32" Drill Bit.

E
Pivot the Drill, vertically while drilling to create an angled hole and to smooth the edge of the opening. This will aid in routing the Fiber Optic Strand into the mast.

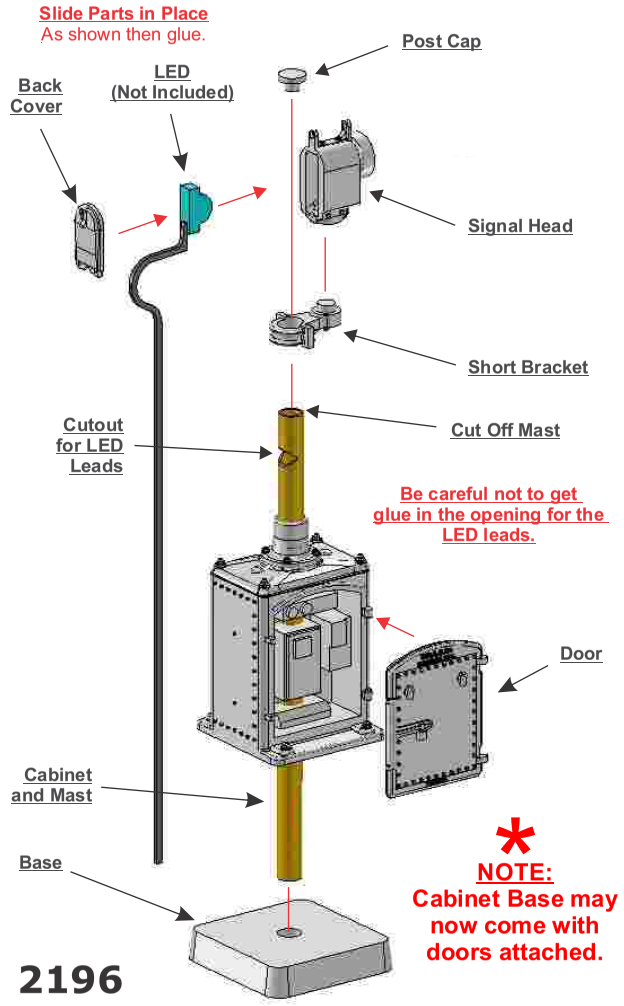


F
Finished Opening, ready for insertion of the LED wire leads.

Use this same technique for other openings in the mast.

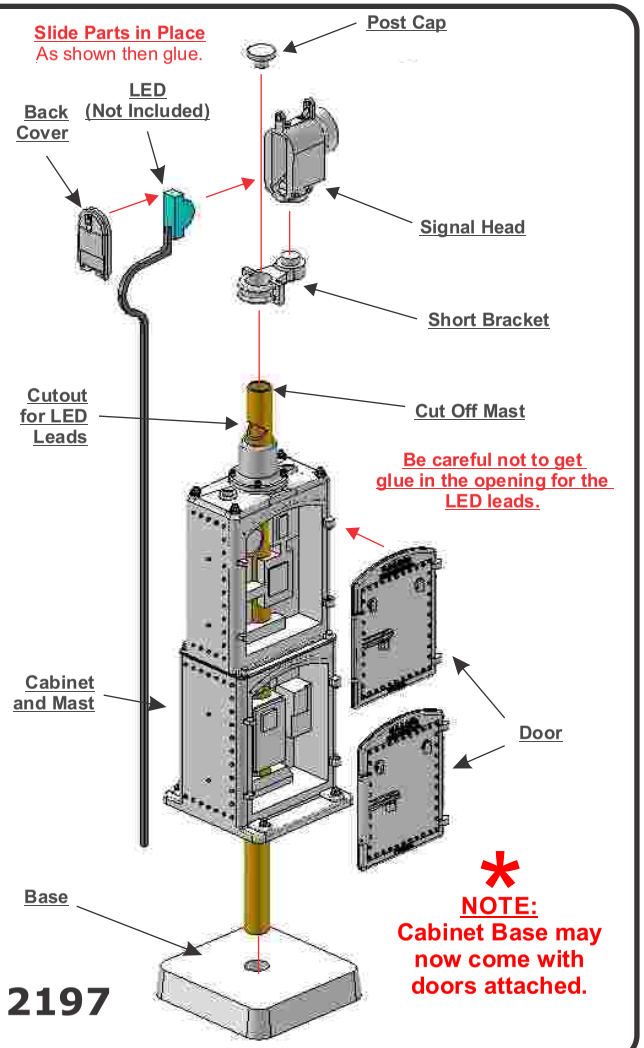


2195



2196

* **NOTE:** Cabinet Base may now come with doors attached.



2197

* **NOTE:** Cabinet Base may now come with doors attached.

Tools You May Need:

1/32” Drill Bit
1/16” Drill Bit
IP1 TORX DRIVER
Needle Files
Single Edge Razor Blade
Dremel Tool
We recommend using Duro brand Super Glue to assemble the parts.

Clean and Debur all Parts
before beginning assembly. Some parts may need to be opened with a 1/16” drill bit.

Before Applying Glue
Test fit all parts by sliding them in place in their correct order n the mast.

Mark the locations
of the parts on the mast using the **Diagram** provided.

Painting
We suggest Completing the entire assembly before painting.

The LED will need to be masked before painting.
One of the easiest ways to mask the LED is to put a small amount of modeler’s clay in the hood. Don’t press the clay too far into the signal head or it may be difficult to remove once the paint is dry.

From the Southern Pacific Standard Plans:

Painting by Manufacturer:
“Signals and all metal surfaces exposed to the weather shall have shop coat of red lead. Relay houses and instrument cases to have shop coat of red lead and two coats of aluminum paint on outside surface. Inside of houses and instrument cases to have shop coat of red lead between the steel and lining and after lining is installed the interior including all shelves and supports to be painted with aluminum paint.”

Painting by Railroad:
“Inside of all signal masts must be swabbed with raw linseed oil and thoroughly set before installing.

All instrument cases and cable terminal boxes must have a spotting coat and a final coat of aluminum paint inside and out.

Signal face and hood to be painted dead black

All other metal surfaces must have spotting of primary paint where required and two coats of aluminum paint.”

Letter Plates are to be given two coats of Dead Black paint. Face of letters and back of plate to be painted aluminum.

HO SCALE DIAGRAMS