STEP NINE: Limber Holes

NOTE: Before proceeding with this procedure, make sure that you have annealed the limber hole photo-etch pieces. This will allow the pieces to bend smoothly to the boat's hull without the tendency to spring back straight.

The limber hole covers provided are based upon the 17' filming miniature. The option is given to simulate the 8' model, but it will not be completely accurate. Decide on which model you will be creating as there are optional steps that must taken.

Fill Extra Kit Limber Holes

Fill and smooth the kit limber holes as shown in the diagram below. These limber holes will not be covered by photo-etch.

Cut Away Casing:

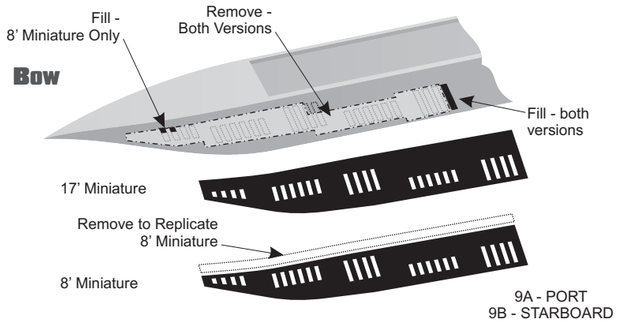
Mark the new limber hole locations using the photo-etch pieces as a guide then remove extra plastic from the kit, making sure to stay within the area that will be covered by the photo-etch.

RADIO CONTROL OPTION

If you will be converting this model for R/C use, do not install the limber holes until after the kit has been painted. Use RTV sealant (the blue "gasket making" rubber adhesive available in most auto parts stores) to adhere the parts in place.

8' Miniature - Trim Etched Limber Holes:

If replicating the 8' filming model, carefully trim the large etch pieces along the provided groove.



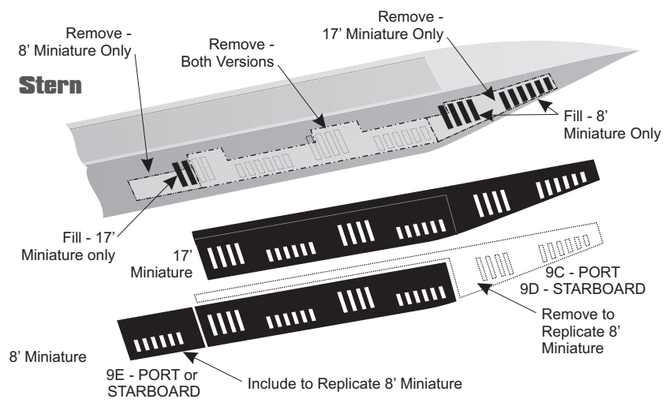
Attach Limber Holes:

Using the diagrams at right, attach the limber hole photo-etch pieces.

NOTE: Make sure to mount the trimming groove down so that it doesn't show if doing the 17' version.

NOTE: Do not leave any gap between the extension and the main etch piece if doing the 8' version.

TIP: Add a piece of 2-3/4" pipe or bent sheet plastic behind the limber holes to simulate the pressure visible behind them.



Acknowledgments:

Special thanks to Dave Metzner of Moebius Models, Gary Kerr, and David Merriman for their excellent advice on what enhancements to include and their expertise on the subject which they were more than generous in sharing. Extra-special thanks to Gary Kerr for his above-and-beyond research and photo annotations.

PGMS ParaGrafix Modeling Systems
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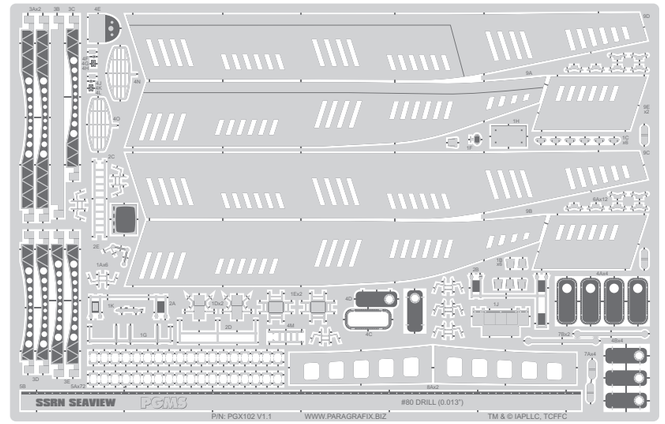
S.S.R.N. SEAVIEW™
Photo-Etched Enhancement Set

INTRODUCTION:



Thank you for purchasing ParaGrafix's Seaview Photo-Etched Enhancement Set. This set is made for use with the Moebius Models 1:128 scale Seaview model. You might also be interested in ParaGrafix's Flying Sub Photo-Etched interior, available on our website at www.Modeling.ParaGrafix.com.

Please note that some parts of this set are intended for advanced modelers. Tips and hints are included to help out those not experienced with photo-etched accessory sets, but this might not help all modelers. Read the basic primer at: http://www.starshipmodeler.com/tech/jl_pe.htm and other resources available on the web.

The limber holes, drain holes, radar antennae, and (optionally) the control room railings need to be annealed so that they will be flexible enough to mold to the proper shape without wanting to spring back flat. Don't panic! Annealing just means heating the parts until they glow red and then allowing them to cool slowly. We have left these two steps until last so that since it will be easiest to do this heating while you can still grab the parts on the fret.

TIPS:

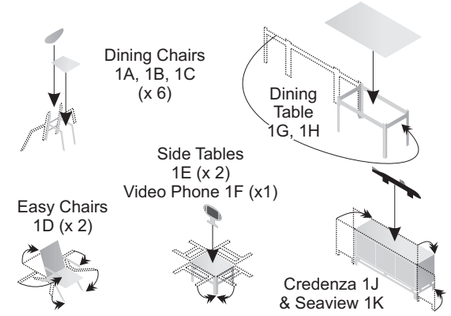
Cyanoacrylate adhesive (aka CA or super glue) is the best option for bonding pieces together and to the Seaview herself.

To cut the individual pieces from the fret, place the etch on a piece of a glass cutting board (or sheet of tempered glass) and cut through using a flat hobby knife. I prefer Xacto's small-sized chisel blade, # 17, ground with a slight curve.

Glass is important - use of a "self healing" cutting pad will result in bent pieces as the board flexes. If using plain glass instead of a cutting board it is important that you use tempered glass to avoid breakage.

STEP ONE: Observation Lounge Furniture

Exact placement of this furniture is up to the individual. Typically, the dining table & chairs were setup to starboard, while the easy chairs and credenza were to port. One side table (with video phone) was typically in the aft-starboard corner under the wall-mounted TV.



STEP TWO: Control Room Railings, Ladder, & Drafting Machine

Periscope Area Railings:

These railings replace kit pieces #62 and #63.

Fold the railings as shown below and glue them in place in the existing kit holes.

NOTE: For easier assembly, the two periscope area railings are designed to be folded, rather than rounded. If you want to have rounded ends on these railings, anneal them and then (once cool) form them over a 1/4" (6mm) diameter rod. You will have to drill new mounting holes.

Sail Ladder:

Use this ladder in place of kit piece #67.

Flying Sub Access Railing:

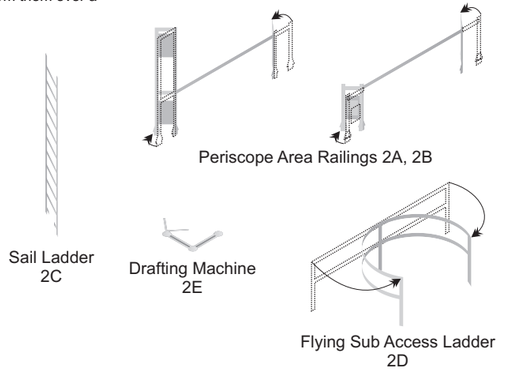
This railing replaces kit piece #64.

Anneal the railing and form it over a 9/16" (14mm) rod and glue it in place in the existing kit holes.

TIP: You may want to wait to work with the Flying Sub access railing until you are ready to anneal the limber holes and antenna. This will allow you to leave all of these parts on the fret for easier handling.

Drafting Machine:

Remove the existing drafting machine and map outline from kit piece #68 (navigation table) and glue this replacement drafting machine in position. TIP: After modifying the navigation table, paint the surface and/or add a small map to the surface before adhering the new drafting machine in place.



STEP THREE: Control Room Girders & TV

TV Screen:

Remove the existing TV screen from the wall of the observation lounge by filing, planing, or chiseling. Adhere the photo-etched TV screen in its place.

Girders:

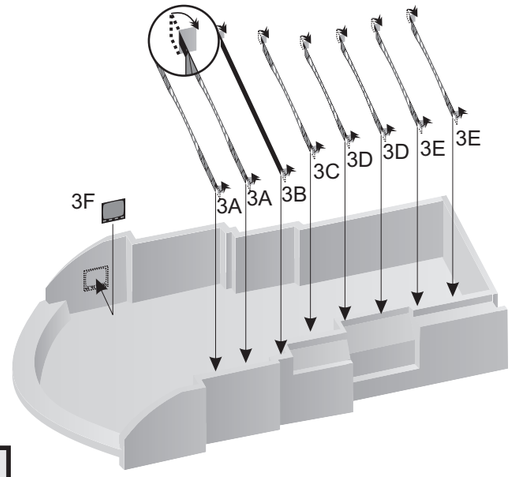
Paint and assemble the control room per the kit instructions, replacing the items assembled in step two.

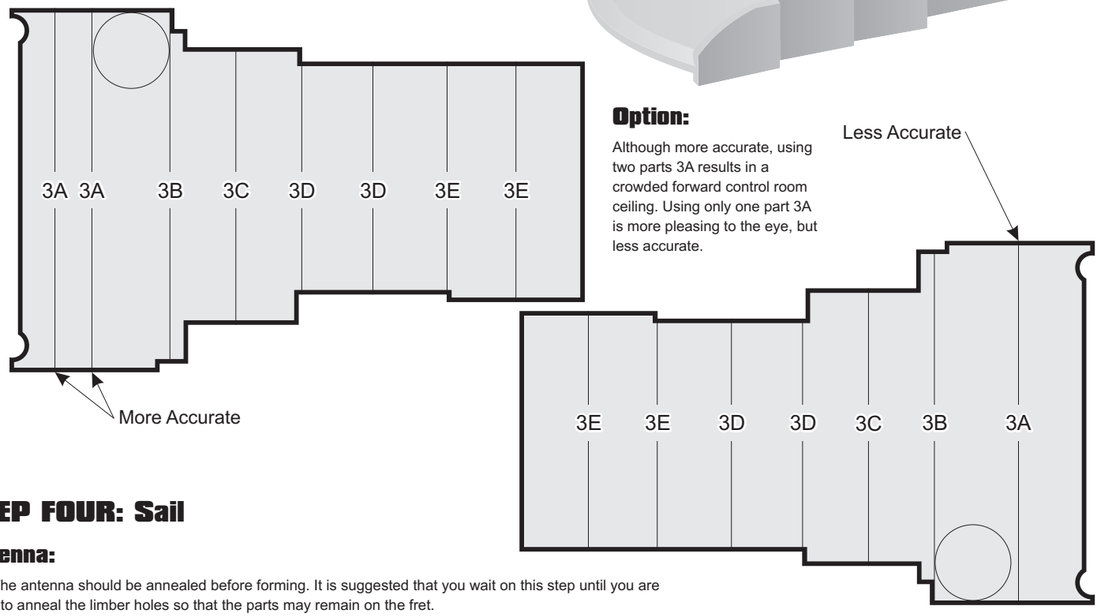
Fold the two outside tabs of each girder toward the back (away from the raised detail). These tabs provide a solid base for adhering the girders to the control room.

Mark the girder locations along the top edge of the control room using the template on the next page.

TIP: You can photocopy this template or transfer measurements from it if you'd rather not cut up these instructions.

Glue the girders in place.





Option:

Although more accurate, using two parts 3A results in a crowded forward control room ceiling. Using only one part 3A is more pleasing to the eye, but less accurate.

STEP FOUR: Sail

Antenna:

TIP: The antenna should be annealed before forming. It is suggested that you wait on this step until you are ready to anneal the limber holes so that the parts may remain on the fret.

There are two antennae included - 4O matches the orientation of studio drawings and 4N matches the models as built. Either one may be used and are designed to directly replace kit piece #54.

After annealing, form the antenna over the existing kit and smooth the outer areas that extend over the kit piece.

Sail Bridge Controls & Ladder:

Bend the control console as shown by about 30° and test fit until it fits snugly.

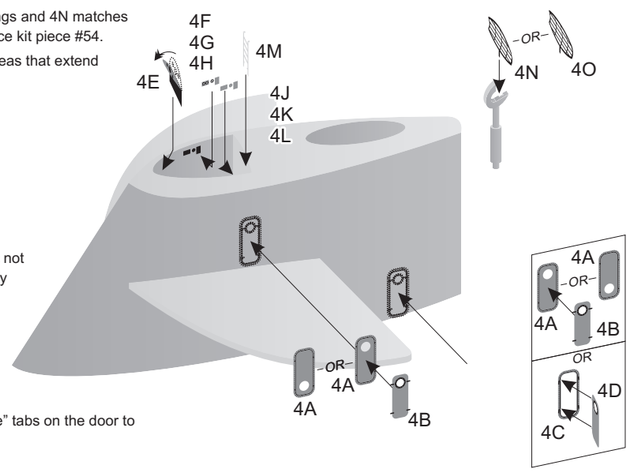
Attach the side controls.

Fold the ladder as shown and use in place of kit piece #53.

Doors:

NOTES: These doors are designed to mimic those of the full-sized set and are not accurate if you are trying to duplicate either of the scale filming miniatures. Only the port side of the sail is shown - duplicate for the starboard side (except the optional open door).

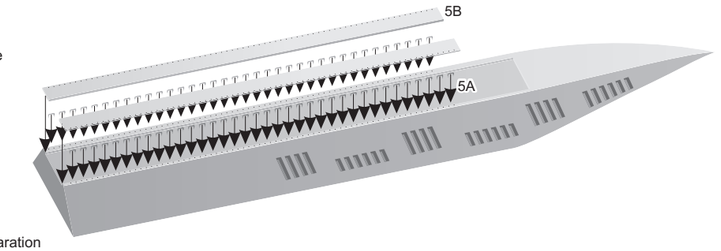
Remove the kit doors by filing, planing, or chiseling. If you want to give more of an illusion of depth, mount the door frame with the window up so that it lines up with the window of the door itself - you will need to drill a small hole in the sail. For the open door, use the two alternate pieces and open up a larger hole in the sail using the door frame as a guide. You can bend the "hinge" tabs on the door to help set the angle.



STEP FIVE: Handholds

Many more handholds are included than you will need. There are two reasons for this - first, the parts are very small and easily lost, and second, you have the option of using some of the extras to add handholds along the ridge that runs between the two rows of missile tubes.

NOTE: The 8' miniature does not have handholds, so omit them if you are replicating this version.



REMOVE KIT HANDHOLDS

Cut off all of the kit handholds and smooth the deck area in preparation for the replacements.

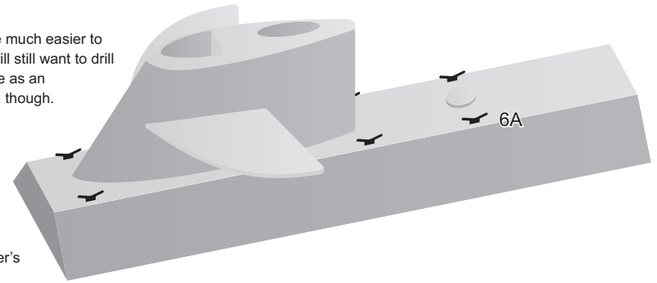
DRILL MOUNTING HOLES

Tape the drilling guide in position on each side of the missile silo area as shown in the diagram below. The front of the guide should be even with the front of kit pieces #4 and #5. Shimming the guide will help ensure that it stays flat. Use a #80 drill (0.013" / 0.33mm diameter) to drill a mounting hole at each location on the guide.

INSTALL HANDHOLDS

Remove the drilling guide and adhere each handhold in place.

TIP: The seam between the missile tube plate (kit piece #14 or #15) will be much easier to smooth if you do not install the handholds until after filling the seam. You will still want to drill out the mounting holes before filling the seam so that you can use the edge as an alignment guide - you may have to clean out some of the holes afterwards, though.

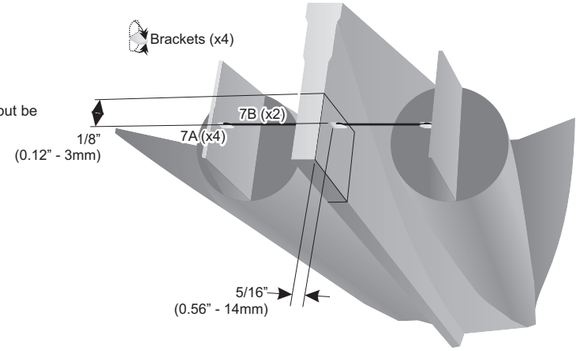


STEP SIX: Cleats

Seen only on the full-scale set, there are two cleats located roughly even with the back of the sail and two more are seen abreast of the hatch. Additional cleats are provided that can be placed at locations of the modeler's discretion.

STEP SEVEN: Rudder Tie-Rods

Fold the four brackets as shown and glue to the three rudders. (Note the dimensions, but be aware that the outer rudders may not be perfectly square, so adjust your positioning accordingly.) Glue the tie-rods in place.



STEP EIGHT: Drain Holes

NOTE: The drain hole pieces will need to be annealed before assembly.

The drain hole pieces fit between the engines tubes and main hull with the wider portion facing forward and the straighter edge along the keel. These pieces will fit properly in one location only.

Option One: Surface Mount

Hold each drain hole piece in place and mark the hole locations on the hull. Also, form the hole pieces so that they conform to hull.

Remove the etched pieces and use the markings to remove material from the model, making sure not to extend beyond the width or length of the etch - this will provide the feeling of depth within the holes.

NOTE: This option will create non-accurate raised drain holes.

Option One - R/C Conversion

If you will be converting this model for R/C use, do not install the drain holes until after the kit has been painted. Use RTV sealant (the blue "gasket making" rubber adhesive available in most auto parts stores) to adhere the parts in place.

Option Two: Cutting Guide

As in option one, hold the drain hole pieces in place and mark the locations of the individual drain holes.

Thin the wall with a moto-tool, and then carefully remove material to the exact shape of the photo-etched drain holes.