

# 20K Submarine 31" Length

## Assembly Instructions

Before starting this resin and model kit, make sure to clean all surfaces with a warm solution of gentle hand soap. This will remove any remaining mold release compounds.

Take the proper amount of time to acquaint yourself with all the parts shown in these assembly steps. Doing so will familiarize you with the many unique fitting characteristics.

Although this kit was inspected thoroughly before shipping, examine all parts before assembly to determine if any have been broken, or are missing. Contact your distributor for replacements.

### Tools needed:

#11 X-acto blade and knife holder  
 Dremel tool with varying small engraving heads for tiny fitting adjustments.

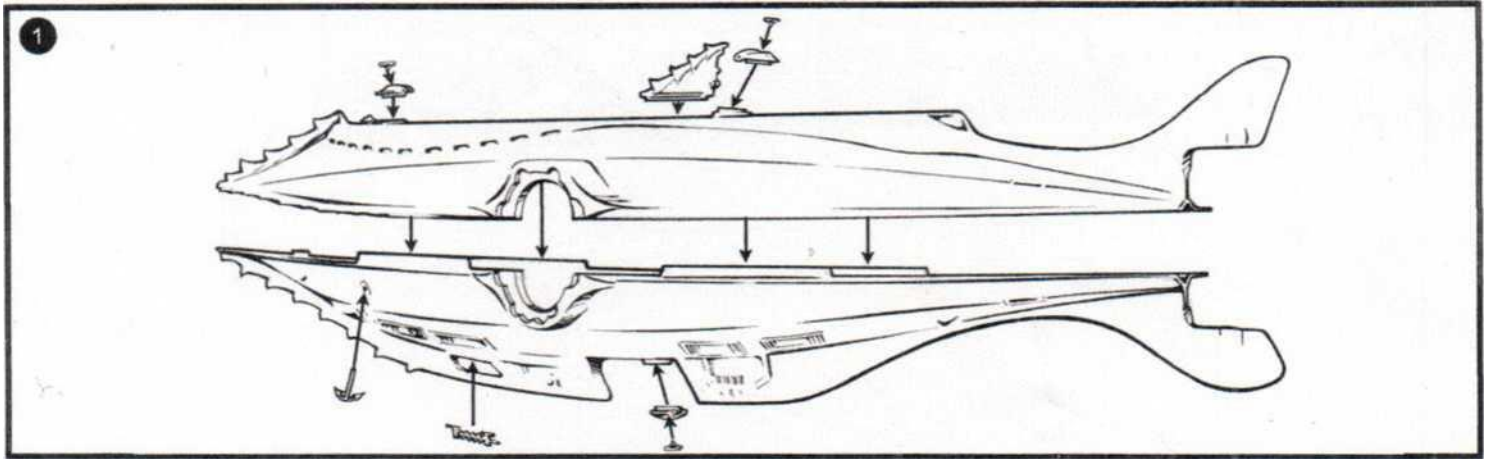
Several grades of medium and fine sandpapers.  
 Pin-vise or mini-drill set  
 Several toothpicks for applying glue droplets.

### Glues needed:

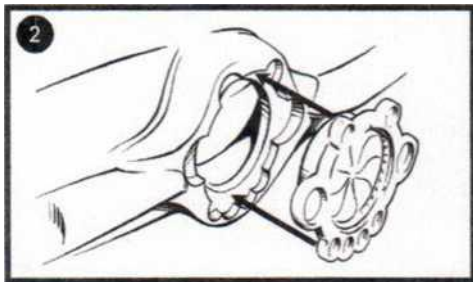
Cynocrolate - Medium  
 Cynocrolate - Thin Krystal  
 Klear or water-based white glue for window installation.

### Paints needed:

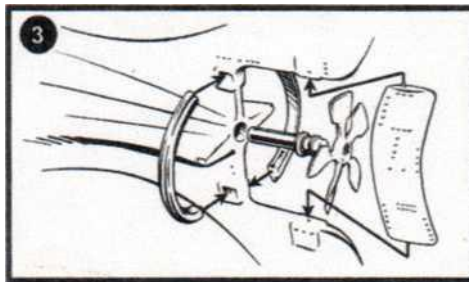
Model Master's Euro-Gray  
 Model Master's Rust Model  
 Master's Leather  
 Model Master's Brass  
 Model Master's Gunmetal  
 Model Master's Flat Black Primer and Matte Spray



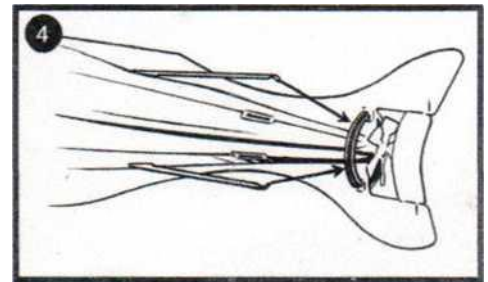
Step 1: Clean off any possible remaining mold release residues with warm water and a mild detergent. Glue upper and lower hull pieces together. Make sure to align them carefully. Install rear dorsal fin into slot. Glue hatch wheels to all hatches. Attach large hatch to rear dorsal fin, over the connector prongs. Attach front and lower hatches to their tubes, keeping hinges facing rearward. Attach speed screw, noting proper direction, to lower fin opening. Drill and insert both anchors into the anchor openings. Make sure to have both anchor barbs resting up against lower hull.



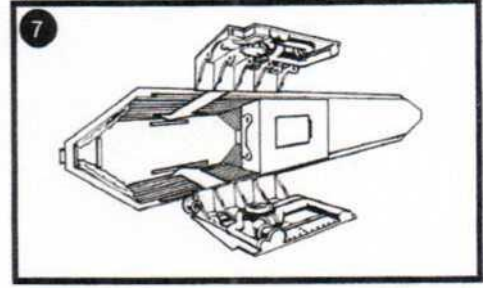
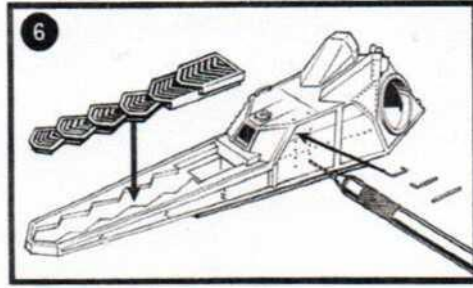
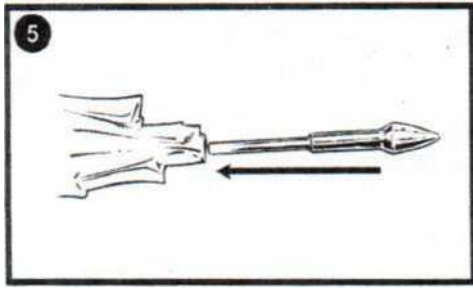
Step 2: Glue left and right salon windows into place, making sure they are properly aligned within the window socket. Putty around window frames to fill in any gaps.



Step 3: Install prop, prop shaft, prop guards, and rudder into rear tailfin opening.



Step 4: Glue 2 prop guard braces onto each prop guard, making sure to space them evenly at top and bottom. Position rear points into rectangular boxes.

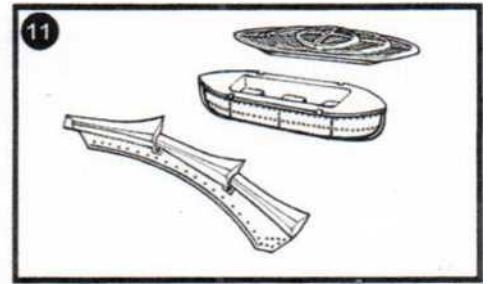
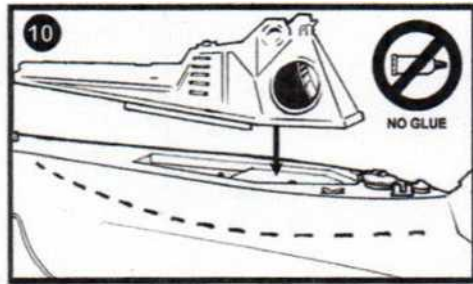
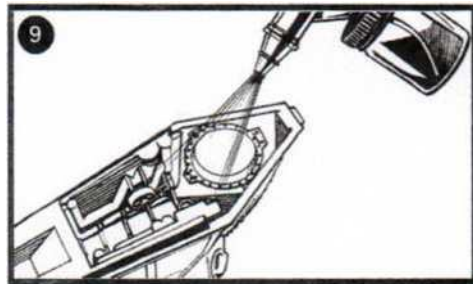
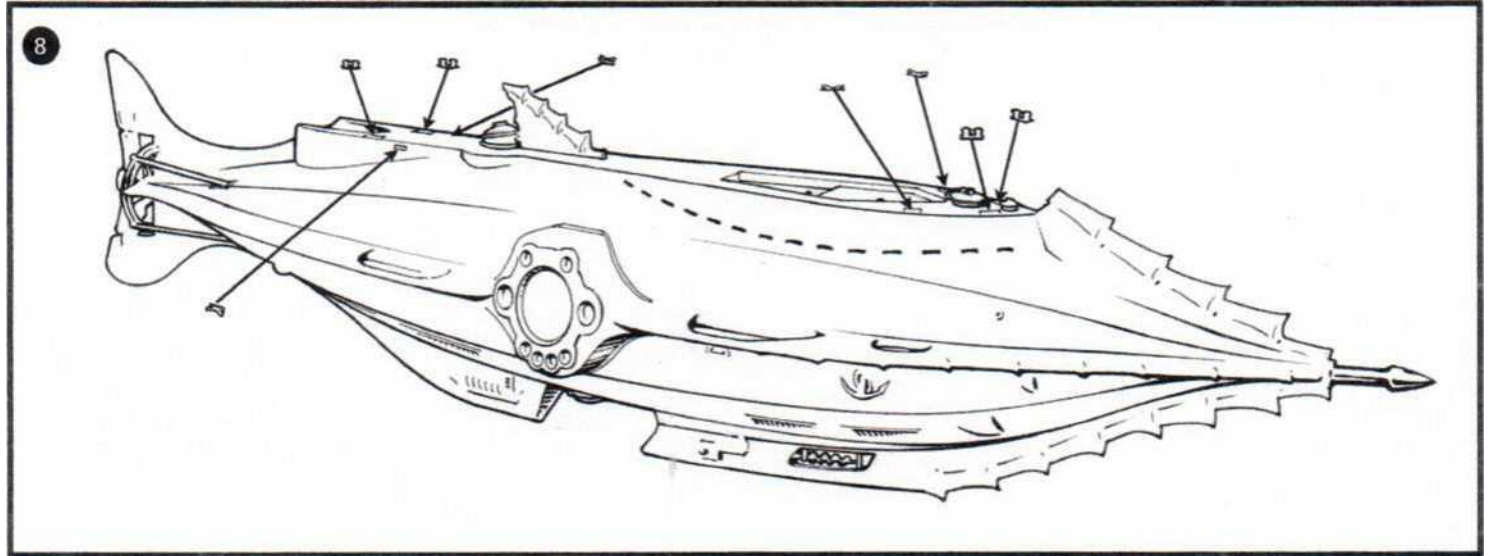


Step 5: Insert front nose spur into nose opening at front of submarine. Make sure to align the spur evenly, with a slight upward tilt. Also, check to see if spur is aligned left to right, as seen from a top view. Once aligned, set with glue.

Step 6: Drill holes in Wheelhouse exterior side walls for ladder rungs. Using .045" brass rod, carefully bend each ladder rung as shown. Then install with tiny drops of glue into holes. After rungs have been inserted, install gill plate into rear Wheelhouse cavity. Finish by priming outside of Wheelhouse, then set aside to dry.

Step 7: Glue Wheelhouse interior left and right wall pieces into Wheelhouse interior. Prime inside of Wheelhouse and let dry.

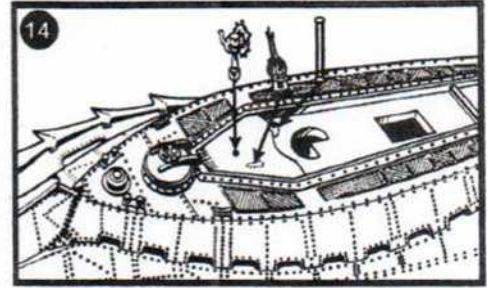
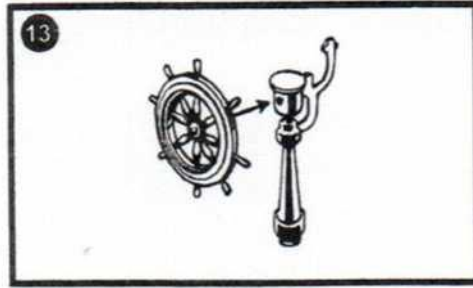
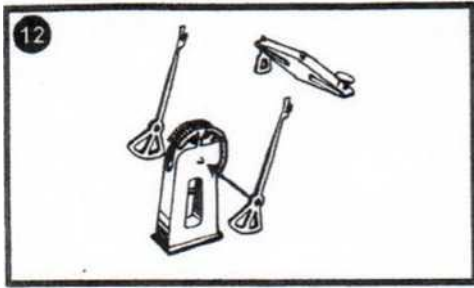
Step 8: Install cleats and bollards to their designated areas. Prime entire submarine assembly. Set aside to dry thoroughly.



Step 9: Paint upper hull interior deck and interior of Wheelhouse *Model Master Metallic Gray*. Let dry thoroughly.

Step 10: Tape over Wheelhouse windows from inside and place onto main hull assembly. Begin mixing the base color which consist of *Model Master's Euro 1 Gray, Rust, & Flat Black*— in a ratio of 2 parts *Gray* to 1 part *Rust* to 14 part *Flat Black*. Paint main hull and Wheelhouse at the same time.

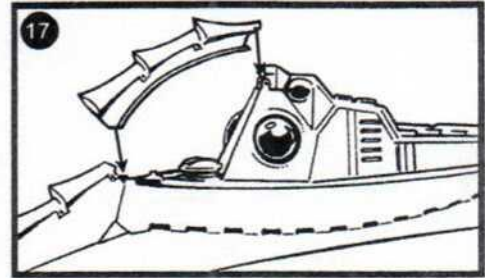
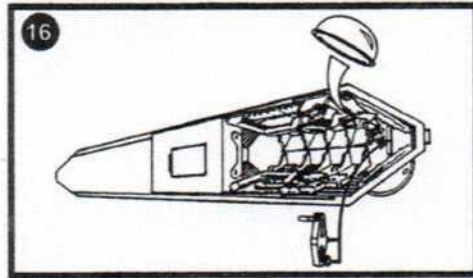
Step 11: Prime skiff, skiff cover, and upper tooth fin. When dry paint all items same basic hull color as in Step 10.



Step 12: Glue elevator levers to elevator stand. Paint both lever sets *Model Master's Brass*. Set both aside to dry. Step 13: Glue wheel to wheel stand, then paint *Model Master's Brass*. Let assembly dry.

Note: Before installing the elevator levers, Ballast lever, & Wheelstand assemblies, they must be weathered with a wash of *Model Master's Rust*.

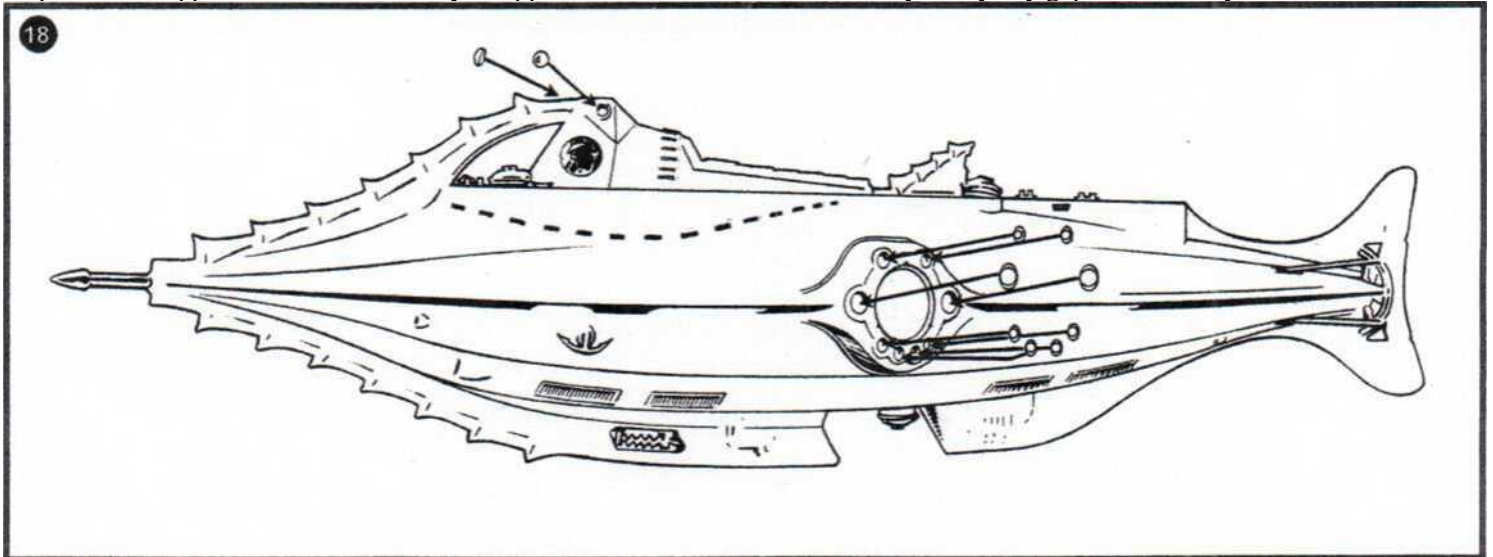
Step 14: Glue elevator levers and wheel stand assemblies to Wheelhouse interior deck. Cut a 1.050" section of clear tube to make Float tube. Sand each end flat. Using White glue, attach to Wheelhouse floor end cap. Position Wheelhouse onto main deck, and check to see that float tube touches ceiling. Adjust top angle if necessary. Set aside to dry.



Step 15: Cut rear Wheelhouse window and install using white glue into frame. Allow to thoroughly dry.

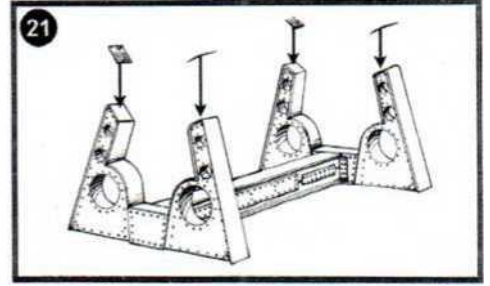
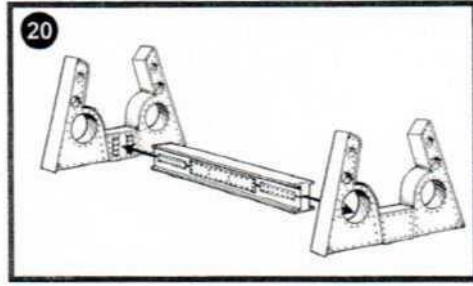
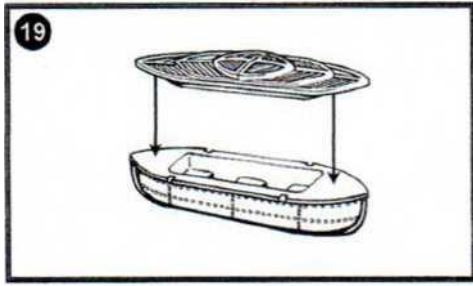
Step 16: Glue Ballast lever to block on center of Wheelhouse ceiling. Cut Wheelhouse window domes with slight edge lip. Install from inside. Fill in around dome and outer frame with white glue—sparingly. Let dry thoroughly. Next install the Wheelhouse onto the upper hull deck, making sure that the float tube lines up with the ceiling end cap.

Step 17: Glue upper raker teeth assembly to upper hull and Wheelhouse assembly. Putty any gaps if necessary.



Step 18: Cut 'Wiggle Eye' pupils from lenses, in all sizes. Using white glue, apply a bead sparingly, to the outer frames. Attach each bubble to their respective frames. Set aside to dry





Step 19: Glue Skiff cover to Skiff. Attaching the skiff to the upper hull assembly with glue is optional.

Step 20: Attach stand ends to center stand support. Make sure assembly is flat, and aligned. Prime entire assembly, then set aside to dry. When dry, paint stand assembly *Model Master's Gunmetal*.

Step 21: After the stand has thoroughly dried, apply small pieces of felt to the stanchions, to avoid marring the Submarine's finish.

Step 22: Lastly, attach salon window domes to salon frames with white glue. When dry, paint salon window dome outer frame to match body color and glue onto outer salon window frame. Touch up comers if necessary. Completed model is now ready to be placed on the display stand.

