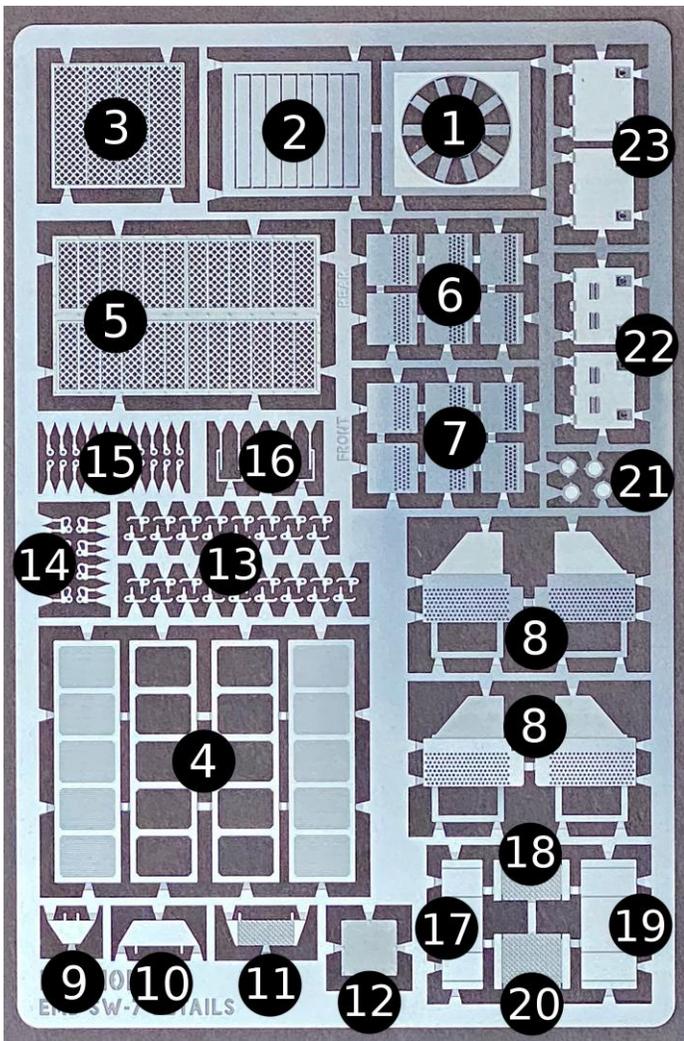
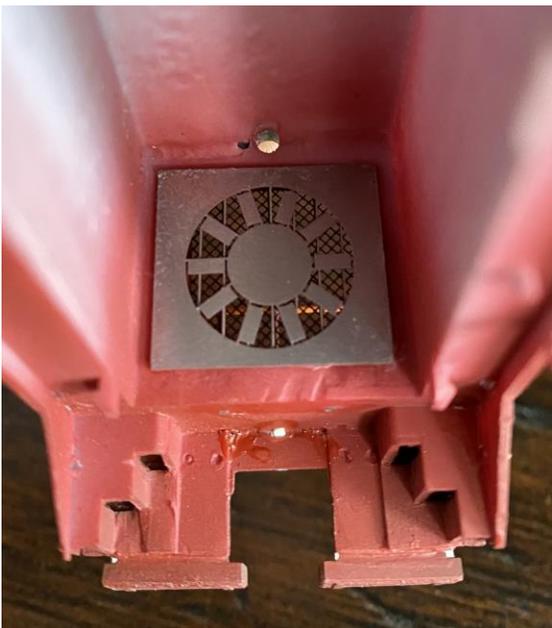


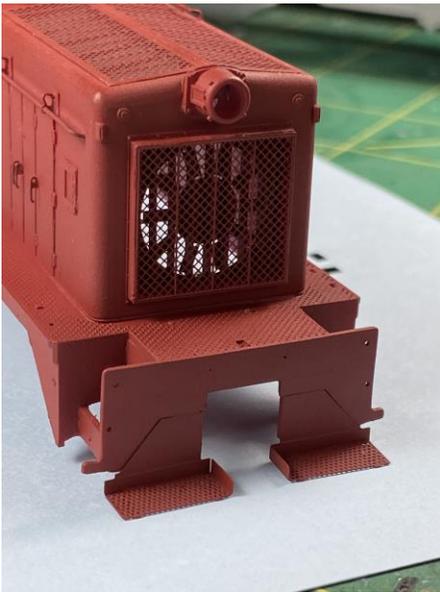
KV-159H EMD SW-7 Builders Guide



1. Radiator Fan
2. Radiator Fan Shutters
3. Front Radiator Screen
4. Radiator Core
5. Top Radiator Screen
6. Rear Steps
7. Front Steps
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9. Horn Mounting Bracket
10. Cab Front Step (Fireman's Side)
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14. Lift Ring Stanchions (Long Hood)
15. Stanchions (Long Hood)
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17. Rear Step Box (MU Equipped Units)
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19. Front Step Box (MU Equipped Units)
20. Front Step Box Tread Plate
21. Class Lights
22. Cab Side Access Covers
23. Cab Side Access Covers



The radiator fan (1) and radiator shutters (2) are attached to the inside of the shell. I recommend attaching the shutters to the fan and then attaching the assembly to the inside of the shell. It just makes the installation process a little easier. The shutters when in the opened position would be bent outward, extending into the opening in the shell. There is enough clearance so you can fully open the shutters. In colder weather the shutters would remain closed to keep the engine compartment warm. CA is recommended for attaching the etched parts to each other and to the shell.



The front radiator screen (3) is attached to face of the outer frame on the front of the shell. The bars in the screen should be vertical. In the photos you can see that the shutters in the opened position show the fan detail nicely. I always paint the fan and the shutters prior to installation in the shell. This makes painting the shell a lot easier.



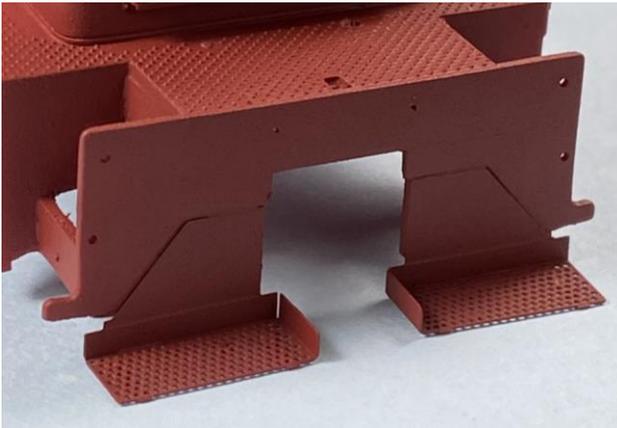
The radiator core (4) consists of the core detail and the core frame. The core detail plate is attached to the shell inside the top radiator opening. The opening may have to be filed or sanded to fit the core plate properly. The core frame is attached to the top of the core plate and is usually painted a dark grey or black. The core detail plate is left unpainted since the etched metal represents the fins of the radiator core very well. It may take some test fitting and sanding to make all of the parts fit properly since the fit is very snug. I painted the inside of the radiator area black since it should not be the body color.



The top radiator screen (5) is pre-painted the body color and attached to the shell AFTER the shell is painted. The radiator core is masked off so the body color does not cover up the core, masking tape is removed and then the screen is attached to the painted shell. A slight fold in the middle of the screen to match the slope of the top of the hood is necessary. I recommend using a bending jig for this.



The steps (6&7) are marked on the fret for the front and rear. The bottom step in each set has 1 less row of circles since the step is narrower. The front edge of the step is bent downward and the back edge is bent upward. So, starting at the bottom step, attach the step back to the vertical riser of the shell. The next step is attached with its front edge overlapping the back edge of the lower step. The same goes for the top step. There is some leeway with the fit of the parts so you have some wiggle room for getting everything to fit. CA with a little longer setting time is very helpful here. Just remember that the front steps need to be installed at the front and rear steps at the rear (cab end).



The pilot footboards (8), if equipped, have a U shaped frame which is folded under the footboard. The inner edge near the coupler is folded upward and the back edge is also folded upward. The back plate is attached to the pilot and fits within the recessed area. CA will firmly hold the plate in place. The footboards may bend inward slightly with the shell but this will straighten out once the shell is placed on the frame of the engine.



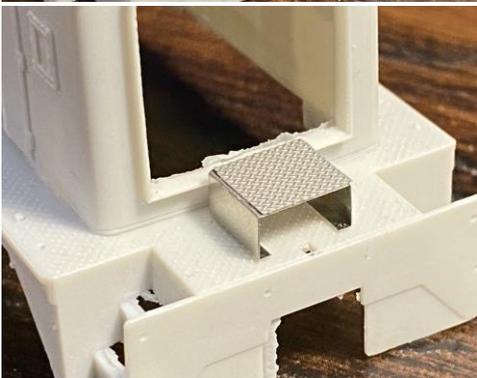
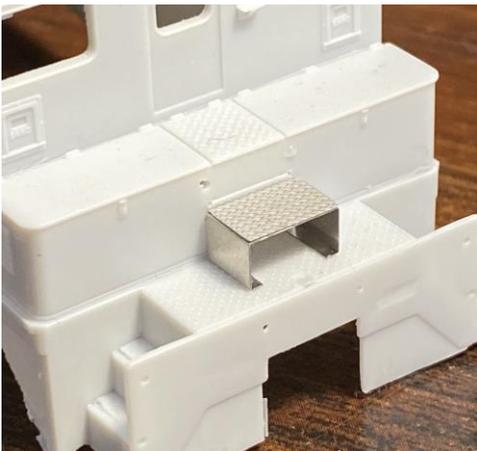
Horn bracket (9) has two sides that fold down with pins that are inserted into the shell. The horn can be attached to the top of the bracket with CA. Front cab step (10) is installed on the fireman's side below the door. The edges are folded down and pins inserted into shell. The rear cab step (11) is the only step that has the tread plate pattern and also has its sides folded down and pins inserted into the shell. The cab vent cover plate (12) is only installed on SW7's that were equipped with this. It is attached to the intake vent on the Engineer side of the cab.



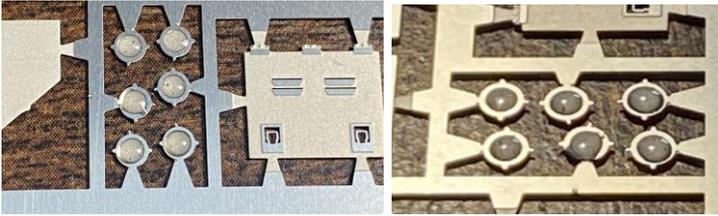
Long hood door handles (13) are inserted into holes drilled in the shell with CA. The lift ring stanchions (14) are attached to the blocks at the front of the engine on the long hood below the top radiator screen. The standard stanchions (15) are installed in the small oval blocks above the doors with the louvers. The fret contains extras of all these parts since many will inevitably find their way to the floor or wherever. I recommend .015" phosphor bronze wire for the handrails.



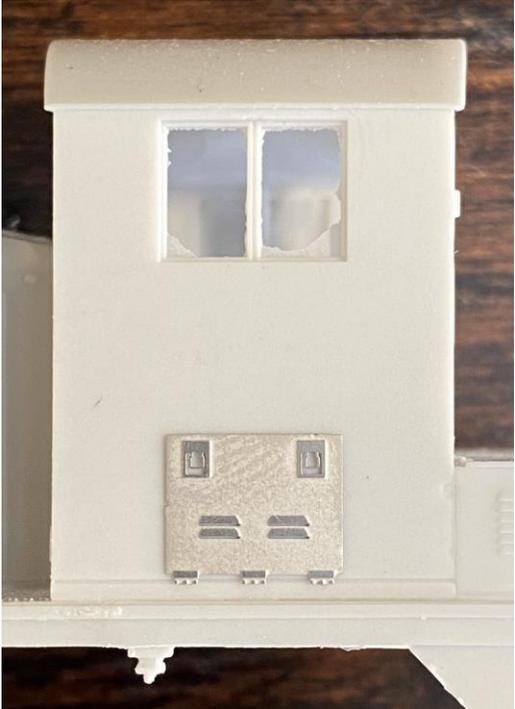
The windshield wipers (16) are installed in the locations shown in the photos. CA on the end mounting pin is recommended for installation.



Walkway step boxes are found on engines with MU capabilities. The raised handrails at each end indicate that these boxes are needed. They fit between the body of the locomotive and the drop step assembly that came with the donor engine. The rear step box consists of two parts (17, 18), the box and the top tread plate. The box is folded into a C shape with two mounting flanges at the bottom. The tread plate is attached to the top of the step box. The rear step box is the smaller of the two. The front step box (19,20) assembles the same way as the rear step box. I used CA along the bottom flange to attach the box to the walkway surface. Again, the two boxes mount between the body of the engine and the drop step assembly. For engines that did not have the extended handrails and MU capability, these boxes are not needed. I should mention that some SW7's were equipped with MU connections on one end only so for those engines you would only use one of the step boxes and that would depend on which end had the MU connections.



The class lights (21) are only used on a few SW7's. I put a small dab of epoxy in the center circle to represent the lens. The bare etched stainless has the right color for an unlit light.



Cab access hatch covers (22,23) were on a few SW7's. These covers are just attached to the bottom of the cab with CA. Refer to prototype photos to see which cover was appropriate for your model.