

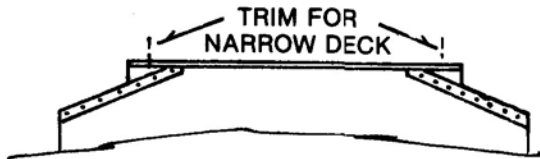
CONSTRUCTION SUGGESTIONS

The construction method suggested in these instructions will produce a car body in which the ends, sides, and roof are built into one box-like unit, sitting down over, and resting on the floor of the car, suspended on the lugs on the inside of each end. Interior partitions, seats, and other details can be completely finished on the floor. The body can be placed over and lifted off the floor at anytime.

The molded sides and roof have a mold release agent on them which is a lacquer base primer, and serves as an excellent base for your paint work. In some cases there may be small voids in the surface of the car side, particularly around very fine detail sections such as door sills on head-end cars, or beading over or around windows, and occasionally a small void in a window pier or frame corner. These can readily be patched and carved down and sanded with very fine grit sandpaper. Similar patching can be done on the roof where small voids may appear around the beading of the roof. We have had good success using Testors Putty or Squadron Green Putty on these types of repair jobs. After such repair work has been done, any sanding required should be done with very fine grit sandpaper, #320 or higher. This is so that the primer coat is not scratched off in such a rough manner that the smooth surface of the side or roof is affected.

PREPARING THE CAR ENDS.

Clean all flash off the end castings. Some castings are appropriate for either a wide or a narrow deck PULLMAN roof. If you are building a narrow-deck roof, and have ends which need to be narrowed at the top simply file away the material at the top edge as shown, until it fits the cavity at the end of the roof. Add the grabirons to the ends, along with any other details which may be required at a non-vestibule end. We suggest at this adding only the short wire grabs, and add wire handrails after the body is assembled.

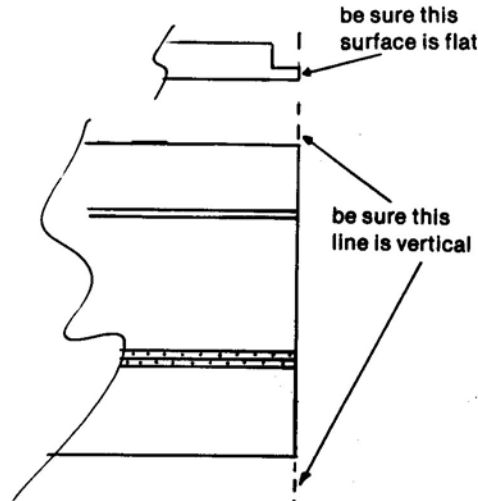


PREPARING THE CAR SIDES.

Clean up the car sides. Although the sides can be cleaned up by gently punching out the door and window openings, we suggest the use of a small X-acto knife to cut this thin skin, cleaning up afterward with a file. This is particularly true on baggage car doors, and the upper portion of double hung windows, where the area is small and a bit more fragile.

When you have done this, and are sure that the ends of the side are vertical, and flat, notch the stiffener rib on the inside top edge of the car side so that the interior vestibule wall will fit in place later without any obstruction. Also add several small

pieces of 1/8" square stock along the lower edge of the inside of the car side, as shown in the body cross section, 1/4" from the bottom, to support the body as it sets on the floor. Be sure you place these so they do not obstruct later placement of interior partitions or seating components. You may prefer to add small lugs to the interior of the car ends to support the body. If you do this, the best way would be to set a small section of 1/4" styrene angle on the top edge of the end sill of the car end, on each side of the door, since this will also give you the correct 1/4" length you require for proper location of the floor inside the car body.

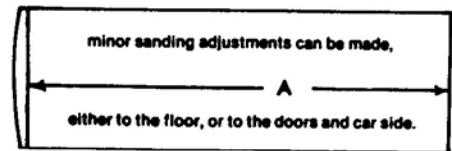


PREPARING THE ROOF.

You will notice at the corners of the end of the roof, where it fits down over the end casting, there is a small fillet of the molded material. Remove this fillet with a razorblade, cutting it away until it matches the contour of the end properly. If you leave a small gap anywhere, it can be patched with hobby putty when the ends are placed permanently, which is later on.

BODY ASSEMBLY.

Prior to any assembly work, verify that the floor is equal in length to the distance A between the undercut at each end of the roof.



Clean the flash away from the undercut and be sure it is square across the roof, so the ends do not fit skewed on the car body when attached. This distance should also equal the length of the car side plus the width of vestibule doors at one or both ends as required for the specific car being constructed. **WE SUGGEST YOU REVIEW AGAIN STEP TWO, TO BE SURE THAT YOU FOLLOWED THE ITEMS OUTLINED THERE.** We suggest you lay

a car side down on the underside of the roof, place a vestibule door or doors as required at each end, and see how they fit against dimension A. If they are slightly longer than this dimension, determine if the ends can still fit in the undercut without sticking out past the end of the roof. If needed, now file the doors and sides very slightly to get the right fit. In prototype practice the car ends fitted back under the end of the roof slightly. When sides and doors are properly adjusted, check the floor length, and if needed, sand until it is equal in length to the sides and doors.

Fasten the ends in place on the roof, using epoxy for a good tight fit. We suggest a five-minute epoxy here, so that you can be sure that as the ends set in place, they are perpendicular to the roof. Keep your eye on this as the epoxy dries, so the ends are not at an angle when permanently set.

On open end cars, such as an observation, in order to be sure that the floor will be level, since there will not be a regular end at the open end of the car, we suggest mounting the vestibule end as described above, then add the doors and car sides and then the interior end wall of the lounge area. The height of this end wall can be adjusted to allow it to serve as the support wall at the open end of the car. This end wall has been made slightly oversize in width and height to allow for this fitting process.

MOUNTING THE CARSIDES.

First add 1/16" quarter round to the end of each car side, then add each door to the car side, flush with the top edge of the side. Add handrails now, drilling and mounting as shown.

When the above items are finished, you are ready to mount the sides in place permanently. Here we also suggest 5 minute epoxy. Keep in mind that there was some overhang of the roof over the carside on the prototype. Also be aware that if you are building a car with molded roof duct for a/c, the roof will be even a bit wider than usual due to the additional overhang of the duct, and you do not want to allow the sides to bow out to this further overhang. In the a/c duct area, there will just be a bit more overhang than in the area where there is no duct.

ADDING ROOF DETAILS.

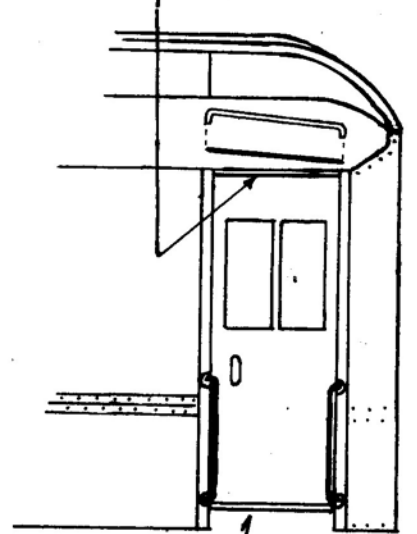
Clean up the roof castings and add them. A suggested placement is shown, but personal preferences or a specific prototype may alter these locations. Add the drip guard over doors, forming them from wire.

BUILDING THE UNDERBODY.

Prior to assembly of the floor, verify that it is the correct width so that it does not make the sides bow out when in place. If necessary trim one edge of the floor slightly. This is necessary because of the potential variations in the thickness of the routed sides.

Cut the 1/16 x 5/8 stripwood to shape as shown for the center-sills, but be sure they clear the trucks you plan to use. .020 x 1/8

- Make top piece of door frame from scrap of 1/32".



- Make door trap from scrap of .020 x 1/8" Attach to bottom of door.

