Documentation of a Multipurpose Console Box between the front seats of a 2017 Mercedes Sprinter

Built by John Tauxe, Los Alamos, NM, 2021

The following construction details will aid in building a similar box of your own. Dimensions are left up to you, as they would likely vary depending on the type of camper you have and your particular needs. This was built primarily from wood reclaimed from a discarded chest of drawers or two. In my case, only hand tools were used, though the reclaimed wood was already thicknessed.

This console box was constructed in 2021 for our 2017 Sprinter camper. The sides are poplar (I think) of 5/16" thickness, and the top and bottom are ¾" thick. The tray insert is from oak, also 5/16" thick.

The dimensions are carefully chosen so that the box allows the following:

- The width allows access to the hand brake, seat belts, and attached map pocket
- The height matches that of a bed extension when using the camper's side bench as a bed, and is high enough to provide storage for the top.
- The length (fore-and-aft) allowing support of said bed extension.

The console box can be lifted out to serve as a foot stool or table, as described below.

The removable tray in the box provides access to a variety of items while driving:

- The cup/thermos holder is fashioned from a piece of found PVC pipe.
- The small compartment next to it is just right for placing two mobile phones on their ends (not shown).
- The next compartment is subdivided into very small compartments.
- The larger part holds pencils, tissues, candies, and whatnot.

And critically, the long (and deep) compartment on the right stows the console top when not in use as a foot rest or table.

Below the tray is a storage compartment for manuals, monocular, and other occasionally used stuff.

The first (and most tedious) step in construction is to build a level platform on which to rest the console box. Here the box is removed, showing the platform with a bit of carpet on it.

The console box simply sits on this platform, although the bar in front keeps it from sliding around. The box is not secured in the event of a rollover.

And here is the platform with no carpet, showing the cutout around the brake handle and the positioning bar that is fixed to the base.

This panel is built of ¾" oak veneer plywood and is plenty strong enough for a person to stand on. The panel simply sits on the frame below.

Here the top of the platform is removed by lifting the front edge and sliding the panel forward.

The space below is framed with 1× lumber with 5/16" oak panels attached to front and rear faces. These pieces must be shaped carefully to provide a horizontal surface for the platform that lies on them. That's the tedious part.

The front oak panel of the frame is screwed to a 1×1/4" aluminum bar that is slipped into holes existing in the Sprinter seat pedestals. This keeps the whole unit in place without requiring *any* modification of the vehicle chassis. Details follow.

The left and right sections of the frame are secured to the front later section using dovetails.

The rear of the frame has an oak finishing strip that protrudes just proud of the platform above the frame pieces.

The space below is just large enough to store a laptop computer and some accessories, out of sight. It serves as a low-security hiding place, since thieves might not think to remove the console and platform.

Here is detail of the dovetails. The aluminum crossbar is also just visible on the front edge. The oak trim piece is screwed to this crossbar, which has holes tapped for the purpose.

Here is a view from the front, showing the aluminum crossbar.

The crossbar is notched at each end to fit into the holes in the Sprinter's seat pedestal. This is the right side. The crossbar is positioned between the two holes, then the platform is screwed to it, securing the system in place.

Here is the left side of crossbar.

The locating block for the console box is screwed into the platform. The finger notch allows for easy removal to lift the platform floor up and forward.

Now back to the console box itself. Here it is shown with the top in place, padded side up.

In this position, the box serves as a bed extension, with enough room between the seats for the feet of a taller person lying on the pull-out couch, with an added bed extension piece that rests on the oak 1×1 bar attached to the back of the box, seen here. The pulled out couch, bed extension, and the padded console top all provide level and padded (to varying degrees) surface.

The right side of the box is fitted with a map pocket.

With the padded side up, it makes a nice stool or footstool. The pad fits just inside the box, securing the top when it is flipped over to the table side.

The top flips over to provide a small table. The edge serves to keep things on the table as well as to keep the top in place when flipped to the padded side.

Handle cutouts are made on the front and back sides of the box so that it may be lifted easily. They must be made low enough that fingers inserted do not run into the tray insert.

Detail of padded side of top. The pad is made from a piece of ¼” plywood with firm foam attached, and wrapped in upholstery. This assembly is screwed into the top through the upholstered pad so that the screw tops are hidden within it.

Note that the total height of the box, made to align with the couch/bed, takes into account the platform, box, top, and upholstery.

The table edges are small lap joints secured with glue and dowel pins to the heavy top. The ¾” top is strong enough to stand on.

Note the detail on the half-lapped joint for the edges of the top. Yes, woodworkers would point out that this is not the proper way, since two edges run counter to the grain of the top, but the wood is reasonably stable and I have not witnessed any trouble.

The sides of the box are dovetailed. Since the wood is rather thin at only 5/16”, the topmost dovetail required addition of a dowel. On some corners, even this was not sufficient, and a long thin brass screw was used to help keep the box together.

In retrospect, the sides should perhaps been made of stouter stuff–at least 3/8” thick, but this is what I had on hand. Regardless, the box is still strong enough to stand on.

The tray insert fits inside the box, held to one side in order to allow for storage of the box top within the box itself.

Here the tray is removed. It also sports dovetail construction.

The dividers are deliberately spaced and permanently installed, with tenons cut to fit into mortised cutouts in the edges. The arrangement of dividers would of course be modified to suit your particular needs.

The bottom of the tray is a thinner sheet of baltic birch plywood, also mortised into the edges.

The middle dividers are cut to cross each other, with one half cut from below and the other from above.

A finger-sized round hold is fashioned into one divider so that the balanced tray may be easily lifted out.

Below the tray are two lateral support bars, attached to the sides and fitted with small pads to keep down on any rattling.

Note also the panel that holds the box top to one side. This panel extends a bit above the tray support bars to keep the tray in place laterally.

The panel is in turn secured by vertical bars to make slots, and is removable for easy cleaning. It also has pads at the corners to reduce rattles.

Here the panel is completely removed. The vertical support bars are quarter-rounded on the side facing the box top so as not to interfere with the top as it is dropped in.

Happy woodworking and camping!