

A little ingenuity, a few scraps of lumber, and some quality time with tools turned an ugly bulkhead into a tidy repository for the navigator's notes and necessities.

A beneficial coverup

The previous owner of our 1973 Albin Ballad had installed an array of brand-new electronic instruments ranging from a fishfinder to a chart plotter and multi-function wind and depth instruments. They certainly add to the ease and safety of sailing and we enjoy them. The tradeoff was that they were mounted on the cockpit bulkhead, and the ambience of the cabin was marred by the unsightly holes cut in the bulkhead and a rat's nest of wires draped over the chart table. After considerable procrastination and reflection, I crafted a multi-purpose solution.

The result is a shallow frame that supports a panel screening the backs of the instruments, a rack for our binoculars and hand-held VHF radio, a hidden wire chase to conceal the rat's nest, and a handy place to keep writing implements and dividers. The screening panel began as a nicely finished piece of wood to match the rest of the cabin, but it evolved into a chalkboard on which we post useful bits of information about tides and currents or reminders of things to do.

Naturally, what I built for my boat is not a one-size-fits-all solution. The best arrangement for your boat will depend

A hide-all that doubles as a handy holder

by Tony Allport

on the size and shape of the space in question and the number and configuration of instruments installed. But a description of the process I used will go a long way toward facilitating a similar project for your boat.

Reviewing the situation

My first step was to figure out what was possible in the existing space. I disconnected the wires from the backs of the instruments and removed all the instruments that protruded from the inside face of the bulkhead. I then taped a piece of brown kraft paper to the bulkhead, aligning one edge with the side of the companionway and creasing it into the curve where the bulkhead meets the cabintop. After I cut on this crease, the paper fit the critical parameters of the space and extended far enough down and outboard to allow for planning. Using my fingertips, I located the cutouts in the bulkhead and marked

them on the paper. This defined the area that had to be screened from view.

I then stepped back and visualized the outboard edge of the assembly.



Lovely boat that she is, *Pleiades* has no right angles or vertical lines, so I chose to place the outside edge at an angle between that of the flare of the companionway and the camber of the cabin side. I drew this line on the kraft paper, allowing for the thickness of the construction material and the proximity of any fasteners or locking rings used to install the instruments. I decided to roughly align the bottom of the assembly with the sill of the companionway, making it horizontal. I now had a portable template the overall size and shape of what I intended to build that I could use as a “floor plan” on which to subdivide the space into useful sections.

Laying out the spaces

I drew on the template a horizontal crosspiece at the lower limits of the instrument cluster, then considered the best way to route the wires that connect to them. This gave me an H-shaped plan with the wires running along the inside of the inboard lower leg. The screening function of the back panel was now defined and I could begin to work additional functions into the remaining space.

I chose to make a permanent home for the things I reach for frequently from the cockpit and that generally clutter up the chart table: my binoculars and hand-held VHF, along with various pens, pencils, and dividers. Before heading back to the shop, I noted the depth I'd need behind the panel to accommodate plugs sticking out from the backs of instruments as well as the sizes of items to be housed in the assembly.

I began construction with an H-shaped frame consisting of two vertical side pieces and a central cross piece. I used ½-inch-thick mahogany 1½ inches wide. I left the side pieces a little too long at the top — about 2 inches worked for me — to allow for scribing them into the radiused corner where the bulkhead meets the cabintop. The angles between the horizontal crosspiece and the sides were slightly off square in this project. I measured them off the template with a protractor and cut them with a chop saw. They only varied from square by 1 or 2 degrees. If you don't want to deal with this subtlety, you can eliminate it in your design by keeping angles square and not following



This view of the backs of electronic navigation devices detracted from the cabin's ambiance. Tony's plan for concealing them began with a piece of kraft paper on which he marked critical dimensions and the locations of the instruments and their wires.

the camber of the cabin side or flare of the companionway.

Assembled on the template

I glued the H-frame with epoxy, nailed it together with a couple of brads, and set it on the template while the glue cured to ensure it was an exact match. I used a pneumatic brad nailer, but you could also hand-nail or screw the parts together if you don't have access to nail guns.

The frame was fragile at this point, so I glued in and nailed secondary



The art of scribing

Scribing is a procedure used before cutting a piece of wood so it will fit tightly against another irregular surface. It is used to ensure a close fit between planks on the hull of a wooden boat and when installing built-in cabinets against a wall.

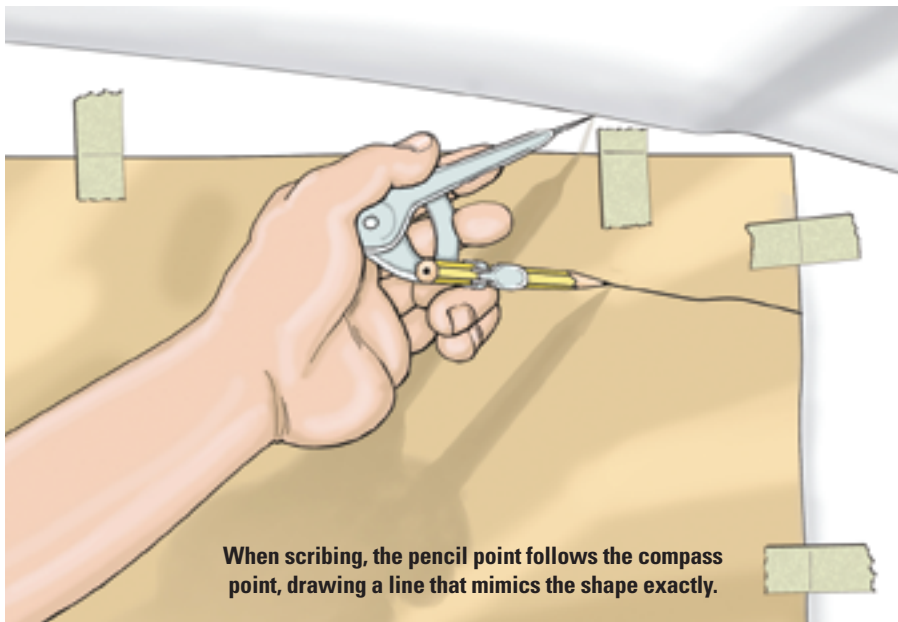
While you can do it in a variety of ways, the method I used employs a drawing compass. Set the compass to match the width of the largest gap observed when you hold the two edges together for a trial fit. Then, holding

“ This project calls for some creativity and a little bit of skill and results in a dramatic improvement. ”

recessed blocking to support the upper panel. This consisted of ½-inch mahogany, cut to 1¾ inches wide, glued to the insides of the upper “U” of the “H.” I left it short at the top to avoid having to scribe it. This secondary blocking was not only to support the upper panel but would also be drilled and countersunk to discreetly fasten the framework to the bulkhead. Once the glue had set and the frame was strong, I took it to the boat to check its fit and to scribe the tops of the vertical pieces to fit against the cabintop.

the point of the compass against the cabintop and the pencil point against the wood, draw a line on the wood. As long as you hold the pencil point directly opposite the compass point, it will draw a line that's consistently parallel with every curve or wobble of the mating surface.

Scribe the tops of both side pieces with the same compass setting before you cut. That way both side pieces will be in the proper relationship with each other. Cut to this line and trim as necessary with a sharp block plane, file, or



When scribing, the pencil point follows the compass point, drawing a line that mimics the shape exactly.

sandpaper for a near-perfect fit. Only the outside faces of the sides will be visible; don't worry about the inside faces that will be covered by the upper panel.

Attaching the frame

Pleiades' bulkhead is of typical construction: a composite of fiberglass on the inside and outside with foam or balsa in between. With the frame fitted and held in place, I drilled through the secondary blocking and through the inside layer of fiberglass using a $\frac{3}{64}$ -inch drill bit, then used an 8 x 32 tap to thread the hole in the fiberglass. I then enlarged the holes through the secondary blocking to $\frac{1}{16}$ inch, countersunk them, and attached the frame to the bulkhead with $1\frac{1}{2}$ -inch 8 x 32 flathead machine screws (stainless steel or bronze work equally well). I used a total of three screws.

For the upper flat panel, I used $\frac{1}{4}$ -inch plywood painted with Valspar chalkboard paint purchased at Lowe's, but it can be anything you like. Varnished wood, Formica, and white vinyl are possibilities. I recommend you start with a sacrificial panel or piece of cardboard to get the size and shape dialed in by scribing. I attached the panel with #6 x $\frac{3}{4}$ -inch oval-head bronze woodscrews.

For the wire chase, I used a $\frac{3}{4}$ -inch x 3-inch piece of mahogany long enough to extend below the bottom of the bridge deck. I hollowed out the back by making multiple passes on a table saw with a shallow blade setting.

Again, I had to cut a slight 2-degree angle on the end where it touches the crosspiece of the "H." I left the chase long and marked it for length after installing the assembly.

The stowage bonus

The rack for the binoculars and the VHF radio needed to be deeper than the rest of the frame: $2\frac{3}{4}$ inch as opposed to $1\frac{1}{2}$ inch. I tapered back the vertical pieces of this sub-assembly at the top to match the depth of the overall frame. I nailed the side pieces into the inside edge of the wire chase and the inside lower outboard leg. Once again, this called for slight angle adjustments at

the top. I applied the bottom next, then installed the partition. Finally, I nailed three slats, evenly spaced, onto the face of the sub-assembly.

I drilled a small block with various sized holes to accommodate pens, pencils, and other instruments and glued this to the wire chase. I sanded and rounded off all the sharp corners and edges and finished the wood with Interlux #42 brown mahogany stain and three coats of Interlux #60 Goldspar satin varnish.

As the economy falters, I have found more time but have had less money for boat projects. This project fits that scenario perfectly. It calls for some creativity and a little bit of skill and results in a dramatic organizational and aesthetic improvement. I built it over one weekend with scrap wood. It's a good-looking upgrade that can be accomplished easily by anyone familiar with woodworking techniques. While building it, I developed a satisfying sense of the true value of things. \triangleleft

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Minimal materials

A nice feature of this project is that it makes the most of a very small amount of material. I used 1 x 4 mahogany window casements salvaged from a home remodeling project. In fact, the quantities are so small I urge you to draw from your scrap pile, or someone else's, before you go to the lumber dealer or home-improvement center. Altogether, I used a single 8-foot board $\frac{1}{2}$ -inch thick by $3\frac{1}{2}$ inches wide, a 16-inch length of nominal 1 x 4 ($\frac{3}{4}$ inch x $3\frac{1}{2}$ inches), a 14-inch square piece of $\frac{1}{2}$ -inch plywood, and a 2 x 3-inch block $1\frac{1}{2}$ inches thick.

Ideally, if you have to buy wood, get a 10-foot 1 x 4 and cut 2 feet off the end. Then plane the remaining 8 feet to a $\frac{1}{2}$ -inch board with a thickness planer. If this is not possible, find someone who can plane it for you; otherwise, buy it pre-milled. Half-inch-thick stock is generally available in a variety of species from hardwood dealers, often sold as drawer-side material. It's always good to have a little extra wood, so be realistic without getting too obsessed with frugality.

In the interest of full disclosure, I used a full range of professional power tools to build this project, but the only one that was an absolute necessity was the table saw. This is not a big job and it's well within the abilities of someone with average woodworking skills.