Scamp Door Renovation

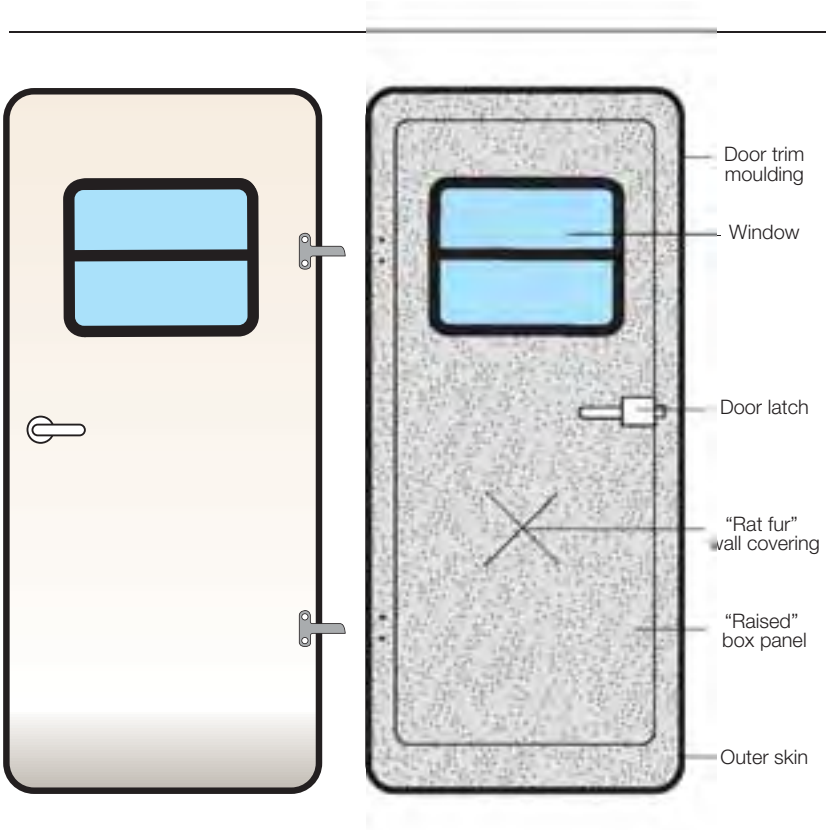
I recently bought a 1988 13’ Scamp. My intention was to thoroughly renovate it to a condition and design level that exceeded that of the stock Scamp. Stronger mechanical elements, custom interior, upgraded utilities, special details and considerations.

The following is the step-by-step process you can take to add a wood veneer detail to your door, as well as to "re-engineer" the arc of the door to correct a bad warp.

Renovating the door to solve a multitude of problems was time-consuming, but very worthwhile. Though it is not the most obvious it is one of the custom details of which I am most pleased.

Scamp Door Renovation

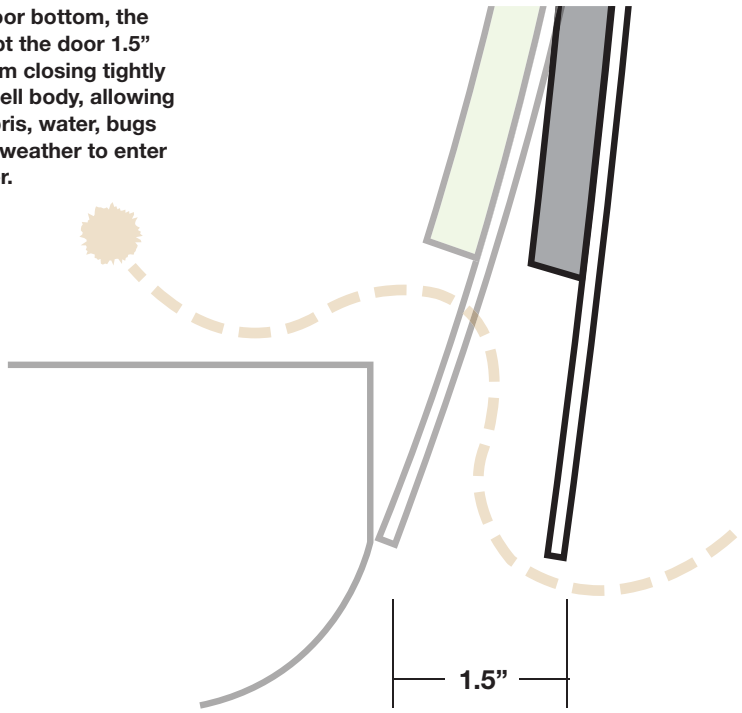
Obviously, there are as many unique fiberglass trailer door designs and construction styles as there are unique trailer manufacturers. The steps I have taken to repair/renovate my door may not be applicable to those with trailers built by others than Scamp. Some of you may find my work helpful nevertheless.



Like most FGRV entry doors, the door of my Scamp has an arcing outer shell of fiberglass about 1/4" thick. The interior of the door has (inset about 3" from the door perimeter) a fiberglass box-like panel that rises approximately 3/4" above the plane of the shell. Sandwiched within this internally chambered fiberglass box is a wood-like (MDF?) filler material. These three components (outer shell, inner box and filler) and their molded fibergalass construction methodology are what provide the inherent shape, strength, weight and volume to the Scamp door. (There are NO internal structural metal components.)

Glued directly onto the fiberglass of the inside of the door is the infamous wall covering commonly referred to as "rat fur." A black vinyl moulding trims out the perimeter edge.

At the door bottom, the warp kept the door 1.5" away from closing tightly to the shell body, allowing road debris, water, bugs and foul weather to enter the trailer.

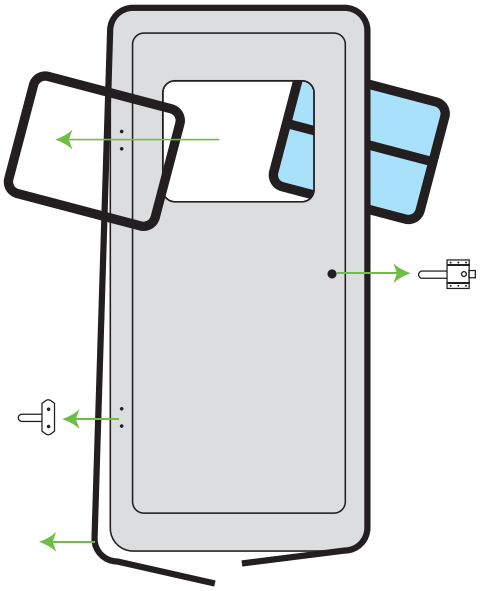


Over time, my door had developed a bad warp towards the bottom. I had a gap of 1.5" that allowed water, road debris and other unwelcome elements to trash the original rat fur covering on the door, as well as the entire entry area.

I couldn't build any modifications to the door without repairing the warp in the door first.

But before I could work on the warp I had to get the door off the shell, dismantled and "stripped" down to the bare fiberglass structure.

Now the fun begins...



PREP THE TRAILER DOOR

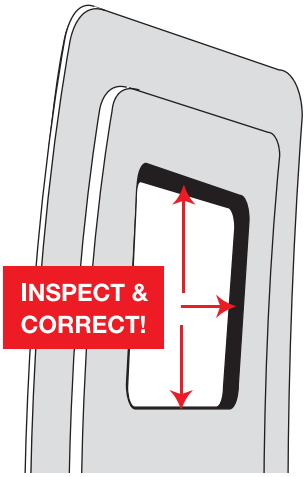
Here's what I did to get things started...

Disassembled the hinge nuts and bolts, lifted the door off the trailer.

Removed the perimeter trim/moulding. (Mine had a couple rivets at the bottom, but wherever you may have them, these are easily drilled out. Then just pull off the trim. Depending on it's condition, you can re-use this trim, or replace with new from Scamp.)

Unbolted and removed the door hinge and door latch hardware. (Now's a good time to inspect the condition of your hinges from your door and the shell —spring, ball, etc.— and make any repairs, or replace components as needed. Again, if necessary, Scamp has all of these parts.

Removed the inside window frame. (Mine was held together with screws. Pull the window out from the outside. There's probably sealant, so do what you must to coax the window free from the door.)

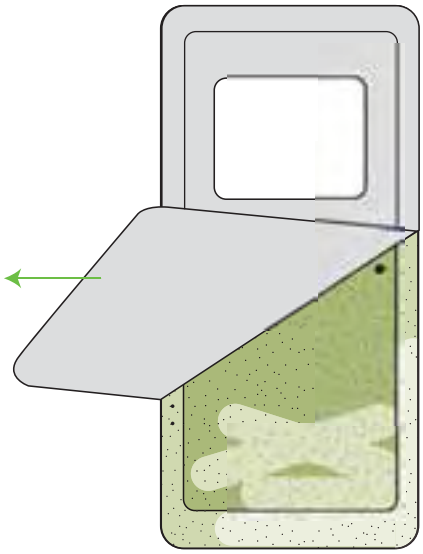


! Check the condition of the window "hole" in your door.

My window had leaks allowing water to infiltrate the body of the door. When the filler material got wet, over time it became a gross mush. And the water, once inside has no place to go! I had to dig and scrape and clean all the water-logged junk from around the window, creating a "cavity" within the fiberglass walls about two inches deep around the window opening. I drilled drain holes at the bottom of the door to help let any residual water out.

To insure that water did not get into the door ever again, I installed a 3/4" plywood frame inside the door cavity around the window, then filled and contoured any gaps with 2-part fiberglass resin.

If you don't have this problem, lucky you. But I'm guessing this is a common problem and now is the opportunity to fix it...



Now I began to strip off the rat fur. It is only held on with adhesive. Used a putty knife to help it along and it pulled off quite easily.

(Most probably you will have residual glue and rat fur "hairs." If you have no warp or window problems to repair, now's the time to prep the fiberglass surface for your door customization. If like me, you want to fix a warp, go to the next page.) The original rat fur hides a multitude of imperfections from the factory. Don't expect the contour of the surface to be perfectly flat.

Grabbed my sander and went to town. (When sanding, pay particular attention to the three inches that surround the raised panel of the door. Fill any egregious holes or divots with an appropriate filler. Because this gets painted, you will want to make it as nice and smooth as possible.)

REPAIRING THE WARP

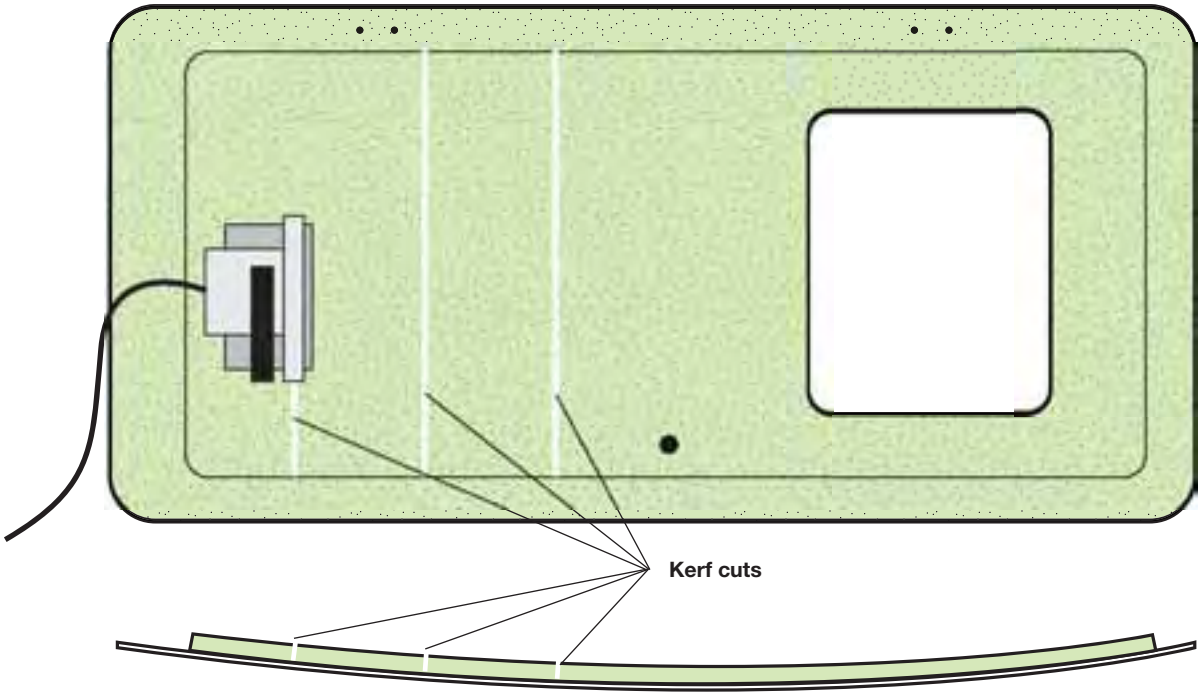
In my particular situation, the bottom of the entry door had warped away from the shell body by nearly 1.5”.

After I had dismantled, stripped and prepped the fiberglass surface, I had to find a way to bring the arc of the door back into a shape that fit the trailer shell.

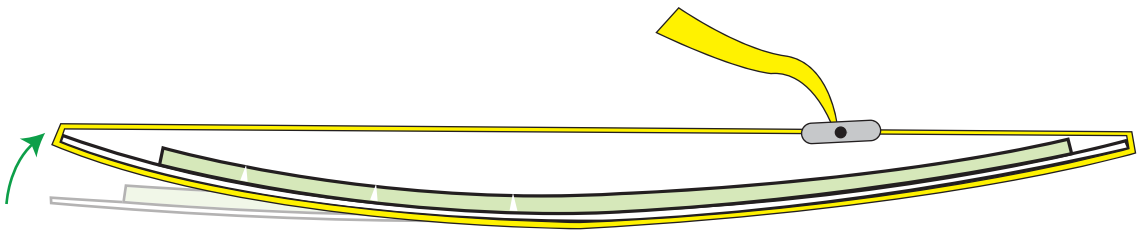
I decided that a few kerf cuts toward the bottom of the dimensional “body” of the door would allow me to squeeze a few degrees of arc into it.

I’m sure there’s a math equation that could predict precisely the number of cuts that would provide the gain in arc degrees I required. But I just eyeballed things and crossed my fingers...

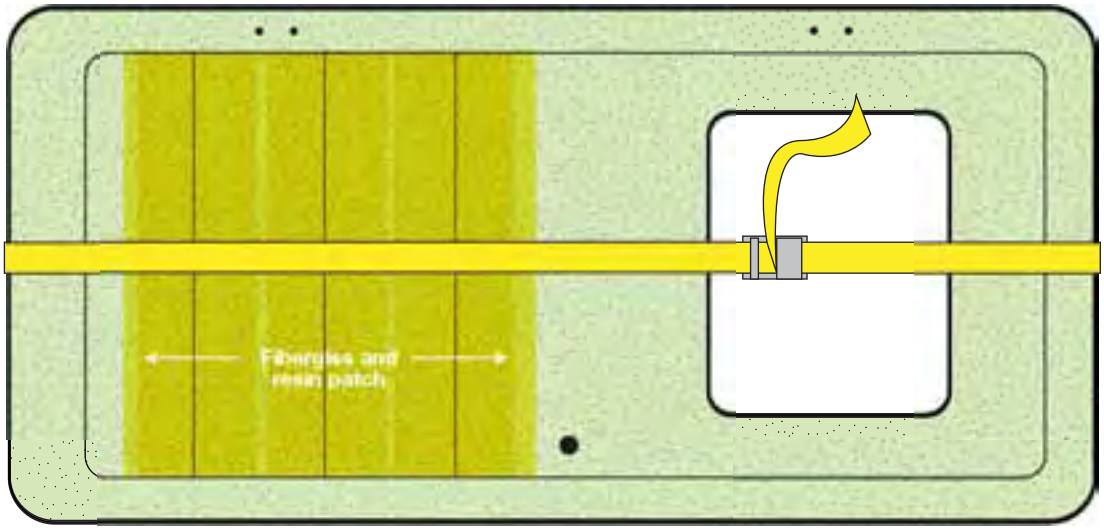
I took my Skil saw and made three shallow perpendicular cuts across the raised panel of the door, at a depth well short of the door skin.



Then, I wrapped a strong, ratchet-style, hold-down strap around the door and tightened until I gained the amount of arc I was looking for.



With the door trussed up with the strap, and squeezed into what I hope to be the proper arc, the next step was to “repair” the kerf cuts. This required a broad “patch” of fiberglass and resin.



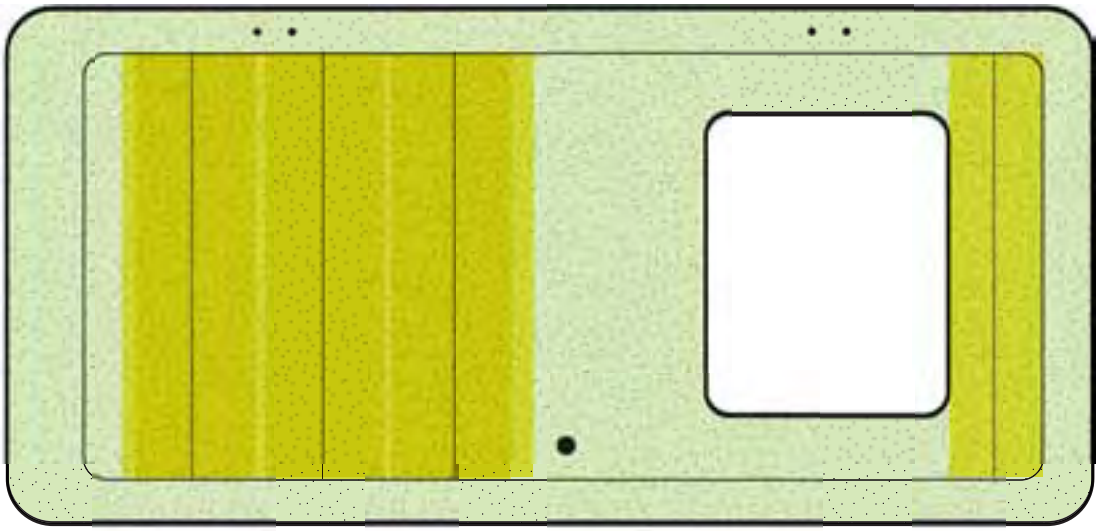
See how tight the fit of the door is to the shell

After the fiberglass patch dried solid, I hung the door back onto the shell to check the fit. While the bottom was now good I found that the top now had a small gap. So the door came off again, and I repeated the kerf cut step, this time at the top. With the door strapped tight again another fiberglass patch was applied. Again, when dry, i test fitted the door. This time the fit was a nice and snug, top to bottom.

The point being here that, depending on the warp of your door, the number of kerf cuts will obviously vary. Take your time and check your work. This is a time-consuming process but well worth the effort.

ADDING THE WOOD VENEER PANEL

Now that I was confident that the door warp was repaired and I had a good door-to-shell fit, the time came to dress up the interior with a wood veneer that would match my custom interior cabinetry.



I took my sander to the raw fiberglass surface, trying to smooth the surface as well as possible. (Wear a mask when sanding or cutting fiberglass.) The inside surface of the door skin, where the veneer would not cover (the approx. three inches that surround the raised panel of the door) gets painted. This area I tried to prep as nice as possible. Mask the raised panel, then lay down some primer, then a couple layers of top coat.

With the three inches that surround the raised panel of the door now painted I could focus on the raised panel area.

Make a template out of paper or cardboard that carefully duplicates the shape of the raised surface of your door. Pay close attention to the radii of the corners, and the window cutout.

Depending on your own aesthetic or taste or intent, there are several lamination options for your door. But because of the curve of the door, you'll want to find material that is thin, between 1/16 and 1/8 of an inch—like wood veneer or Formica — or very flexible, like some fabric or even new rat fur*. (Note! Some surface contour unevenness or irregularities could affect the look of the end result. Unfortunately, with the way these doors are built, there's no real good way around this problem.)

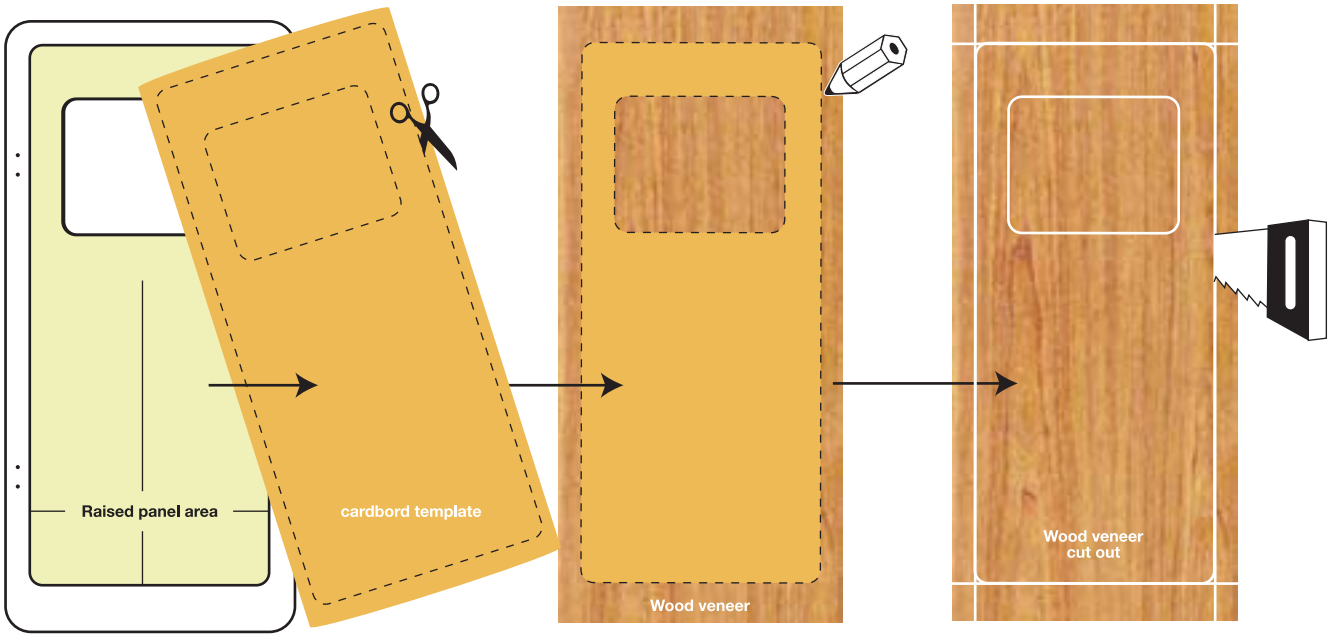
If you choose to use either a formica or a wood veneer, transfer your template onto your laminate and cut. (I have to assume here that you have the appropriate tools and skill to cut the laminate accurately.) Make the window opening oversized by 1/4 inch all around.

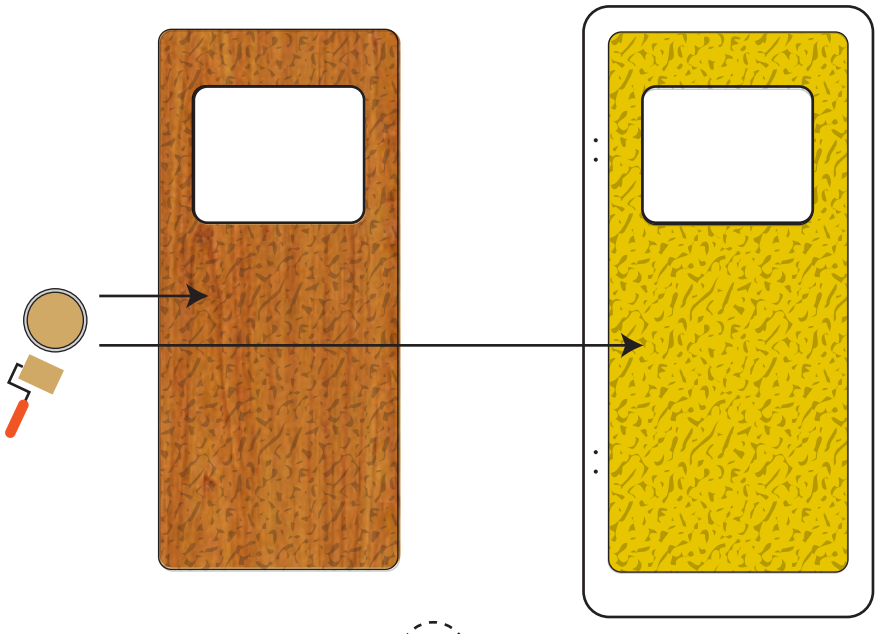
!!! Caution!!!
Consider this: Attaching a flat sheet of wood veneer to your curved door is gonna force the wood to follow the curve. This will put some degree of stress on your veneer, and depending on its thickness (and direction of the grain), its "memory" may want to force it flat again. This pressure COULD create two problems: 1) after cementing together, the veneer may try to "go flat" again and separate from the door; and 2) this "go flat" pressure could have some affect on the ultimate arc of your door, and thus, its fit. To relieve some of this potential tension I used a matte knife to make a series of very shallow perpendicular scribing cuts to the back of the veneer. (This would not be a problem when using a laminate like Formica.)

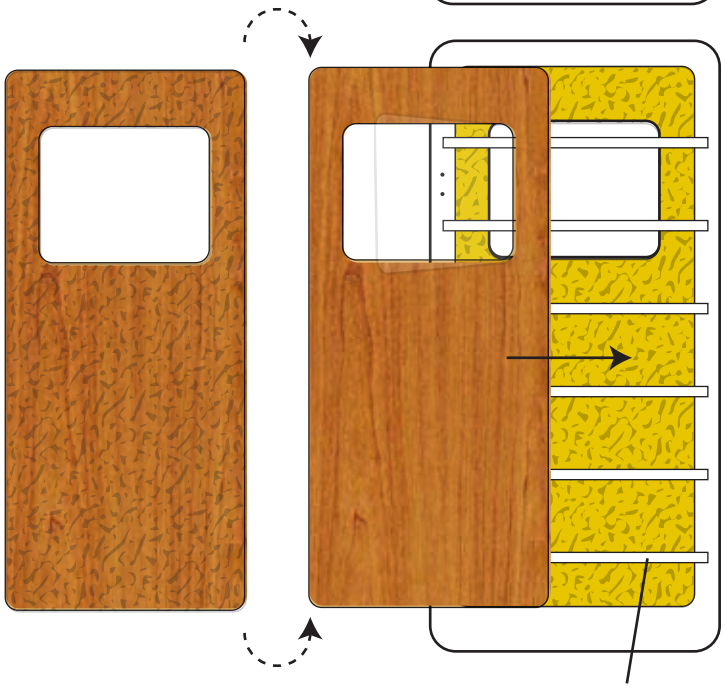
***Using Fabric on Door Panel**

As mentioned earlier, the original rat fur material hid many imperfections in the door construction. Putting on new fur (or other heavy-duty fabric) may be a good option.

But for the custom look this time around, you'll want to cover only the raised area of your door. A straight-edge, super-tacky 3M spray adhesive, razor blade and/or scissors is all you'll need for this treatment. When using fabric of any kind, you'll want to use an appropriate method to bind the exposed outer edges of your material.

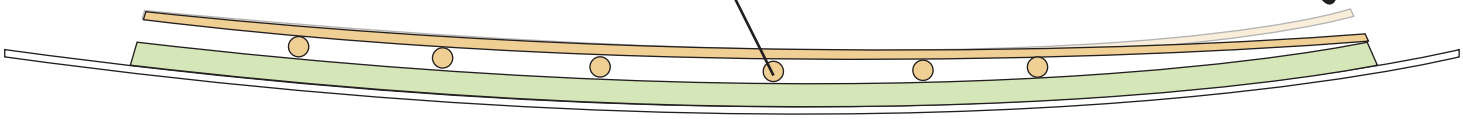






Using dowels or wood strips to “float” the laminate over the door allows you to align both before joining together

When aligned, apply pressure to the leading edge to “mate” the cemented surfaces



MOUNTING THE DOOR PANEL

You'll now need good contact cement and clamps. If you don't have experience with contact cement this can be tricky, but not to worry.

Apply the contact cement to both mating surfaces: underside of laminate and raised surface of door. Let both stand until dry to the touch (Just dryer than tacky.)

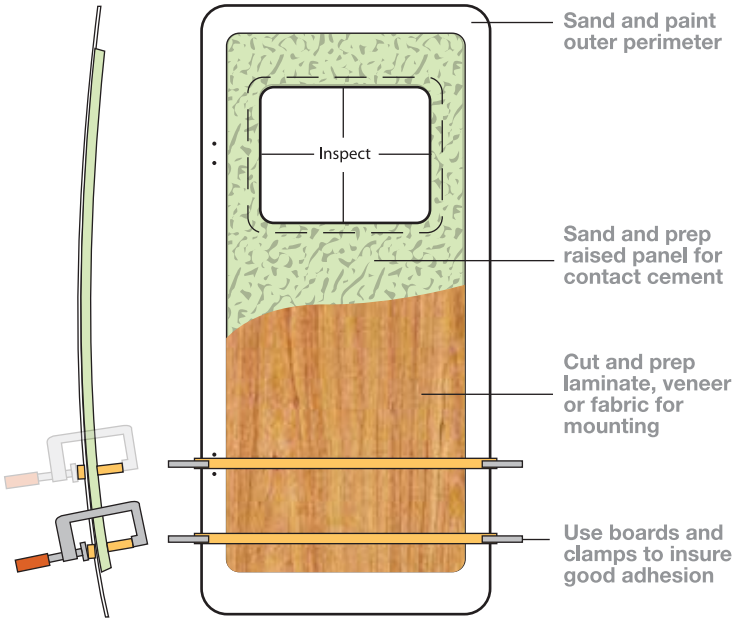
When dry, place a series of clean, narrow spacers (thin boards, dowels, etc.) across the coated surface of the door. Lay the veneer on top of your spacers so it's "floating" over the door (cement side down, of course) and position/align it EXACTLY over the edges of your door.

Remove the first spacer from the top end of the door and press the laminate into the door, joining the two coated surfaces. Check to see that everything is still aligned. Pull out the next spacer and continue to press together. Check alignment again and tweak as necessary.

Continue this procedure to the bottom of the door. A baker’s rolling pin is perfect for applying pressure across the panel to insure good adhesion.

(At this stage I added some carefully placed screws where needed to pull the laminate tight to the door.)

Clamp your work using boards (sitting on narrow end) that cross the door perpendicularly. Use pads of some kind to protect outside of the door from clamps. Drill holes for your latch hardware.



REVIEW

1) Remove hardware, window and rat fur from your door. Sand and prep inside door surface for paint and contact cement.

2) Inspect and make any necessary repairs to both your window opening and door arc (fit to trailer shell).

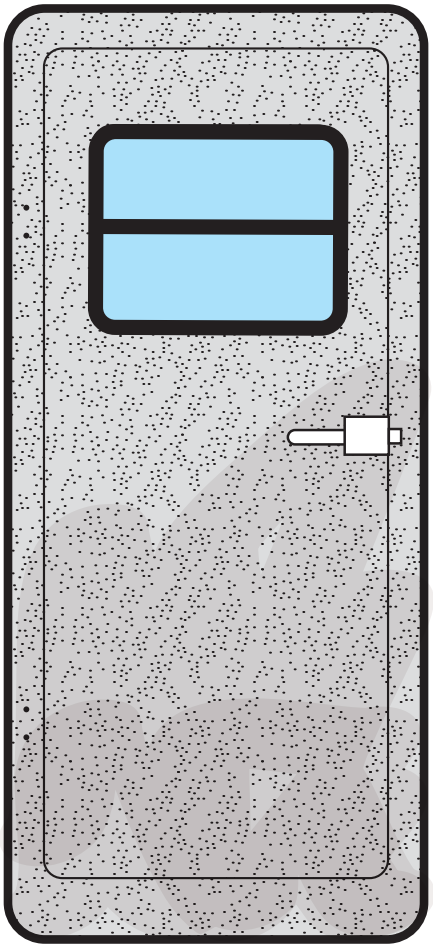
2) Trace raised door panel shape onto a template. Transfer template pattern onto veneer of your choice. Cut and trim the veneer as necessary.

3) Coat mating surfaces of the raised door panel and underside of veneer with contact cement and let dry.

4) When cement is dry, use spacers to keep coated surfaces apart until aligned and ready for mating. Join cemented surfaces carefully, with extreme focus on alignment.

5) Use narrow boards to span mated surfaces and clamp on end until cemented surfaces have cured.

6) Drill necessary holes and reinstall hardware, window, hinges, and edge moulding.



From an old, stained and soiled fabric wall covering to a custom wood-grain panel.

A “new” door that, when shut tight, is leak-free and snug to the trailer shell.