Seat Re-Upholstery
2006+ Honda Civic
by J-Ro

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The author takes no responsibility for any damage, injury or liability that may occur as a result of following this guide. The guide is provided for informational purposes only, and anyone wishing to perform the same modifications are free to do so at their own risk.
Seat Re-Upholstery
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The following DIY explains the process required to successfully re-upholster the inner panels of the Civic seats. Even though re-upholstering the door panels was part of my project, I decided not to do a full DIY, since there is already a good one done by esx005, available at:

This procedure is open to a lot of customization, since any colour, texture and type of material can be used, and more/fewer seat panels can be changed. My re-upholstery project involved replacing two panels on the bottom section and two panels on the top section of each seat with a red plush material, as well as re-upholstering, padding and “pin-cushioning” the door panel inserts in the same material, although this is optional. I considered the popular Alcantara material, but managed to find a more cost-effective substitute that is both durable and a perfect match to the “Si” logos on the front seats. The material can be found at any material store or online, and the foam and glue is best found at a marine specialist or craft store.

The only skill requirement for this project is moderate skill with a sewing machine. If you are like me, you probably know generally how to work a sewing machine, but not well enough to bet your seats on. So Step Zero is to call your mother and ask for a huge favour! Other than that, all that’s involved is the methodical—and slow at first—disassembly and reassembly of your seats.
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1.0 **Resources**

1.1 Required Materials:

- 2 linear yards of your material of choice (usually 54” wide)
- 3-4 square yards (27-36 square feet) of 1/4” low-density, open-cell foam
- spray adhesive (3M Super 77 or equivalent)
- heavy-duty polyester thread color-matched to your material of choice (color-matched because two panels on the rear seat have stitching that is potentially visible)

1.2 Required Tools:

- scissors
- permanent marker
- plastic prying tool
- two pairs of heavy-duty needle-nose pliers
- #2 Philips screwdriver
- 5mm Allen key
- 10mm, 14mm sockets, driver and extension
- torque wrench (don’t skip this; it’s important!)
- sewing machine and pins
- stitch remover
2.0 Seat Removal

In order to work on the seats, they must first be removed from the car.

2.1 The front seats are generally easier to work with, since their mounting is simpler.
   2.1.1 Beginning with the driver’s seat, move the seat all the way forward to expose the back half of the seat rail.
   2.1.2 Pull each end of the plastic rail covers to the side to release the clips and pull the covers straight back to remove them and expose the two rear seat bolts.
   2.1.3 Using the 14mm socket and driver, remove the two rear seat bolts.
   2.1.4 Move the seat all the way back and remove the two front seat bolts.
   2.1.5 Tilt the entire seat so that the seat-back rests against the rear seats, and disconnect the four electrical connectors (the yellow connectors for the side airbag and pre-tensioner, and the white connectors for the seat belt sensor and seat position sensor).
   2.1.6 Tilt the seat-back forward and remove the seat from the car, being careful not to hit the seat frame on any part of the car on its way out. Also be careful lifting the seat, as it weighs approximately 50 lbs.
   2.1.7 The removal of the front passenger seat is the same as the driver’s, except that the seat belt anchor must be removed (using the 14mm socket and driver) in order to remove the seat from the car.

2.2 The bottom of the rear seat is one piece, and the seat-back is also either one piece or two, depending on the trim level of your car (i.e. whether or not it has split-folding rear seats).
   2.2.1 Underneath the passenger-side and centre seal belt buckles is a single 10mm bolt, which can be removed using the 10mm socket and extension.
   2.2.2 Pull up sharply on the seat bottom to release it, pull the seat belt buckles out of the slots and remove the seat bottom from the car.
   2.2.3 Release the seat back(s) to lay it flat. On either end are two 10mm bolts that secure the hinges. Pull up the Velcro and remove the four bolts (total).
   2.2.4 Pull the centre seat belt out of the black plastic guide on top of the seat-back. The single-folding seat-back can now be removed from the car. If you have the split-folding rear seats, continue on the next step, otherwise move on to Section 3.
   2.2.5 Pull back the Velcro on the smaller seat-back to expose the other 10mm bolt and remove it. You can now remove the smaller seat-back.
   2.2.6 The last bolt is in the same line as the pivot axis of the seat-backs, since it also secures the middle hinge. Remove the bolt, being careful to keep the bolt, hinge and plastic bushing together. You can now remove the last seat section from the car.
3.0 Seat Disassembly & Material Removal

In order to remove the seat covering to reupholster them, the seat needs to be almost completely disassembled.

3.1 I will begin with the front seats. It is best to work on a carpeted or otherwise padded surface since the seat will be turned on its side several times.

3.1.1 Remove the plastic seat-back trim by squeezing your fingers in between its top edge and the seat material. Push down hard to release the hooks from underneath the seat frame. There are three hooks, equally spaced. See Figure 3-1.

3.1.2 Gently pull the seat-back trim away from the seat to release the clips along the sides. It helps if you can reach your arm inside and pull the clips out manually to minimize the chance of breaking them.

3.1.3 To finally remove the seat-back trim, pull up to release it from the two white clips, which should still be in the steel seat frame. These will be removed in Step 3.1.10 (they cannot be removed now without being broken). Turn the seat on its side and release the stretchy band from the seat springs underneath the seat.

Figure 3-1: Seat-back trim being removed, showing top hooks (A), side clips (B) and bottom clips (C, cannot quite be seen here)
3.1.4 Release the clip securing the yellow airbag connector, cut the zip-tie securing the wiring under the seat and feed the wiring back up through the seat to the airbag. See Figure 3-2.

3.1.5 Using the 5mm Allen key (and pliers if the bolts are tight), release the four stainless bolts securing the airbag, and remove the airbag from the seat. The bolt locations are shown in Figure 3-3. Be careful with the airbag! Impact will not set it off, but it is a delicate device. **An electrical charge will set off the airbag however, so DO NOT GET THE AIRBAG ANYWHERE NEAR ELECTRICITY.**

3.1.6 Pull the plastic airbag frame out of the seat frame and unhook it from the airbag liner.

3.1.7 Reach up from the back inside the seat and push the two tabs to release the plastic headrest guides and push them up out of the seat, as shown in Figure 3-4.

3.1.8 Release the white plastic tabs on the top, sides and bottom of the seat-back to release the seat foam and material. For the driver’s seat, pull up and forward to release the seat foam and material, and continue with Step 3.1.10. For the front passenger seat, there is one more step.

3.1.9 For the front passenger seat, disconnect the OPDS sensor wiring from the OPDS control module on the left side of the seat frame, as shown in Figure 3-5. Pull the three narrower cables out through the hole in the seat frame (the thicker cable does not need to be disconnected) and
disconnect all the white plastic clips securing the cables (Figure 3-6). Now lift the seat-back foam and material off the seat frame (the three OPDS sensor cables will come off with the seat foam).

Figure 3-3: Side airbag (outlined arrows indicate bolts that cannot be seen here)
Figure 3-4: Squeeze the tabs on the headrest guides as indicated by the arrows

Figure 3-5: OPDS control unit (remove the connectors indicated by the red arrows and leave the connector indicated by the green arrow)
3.1.10 Now that the seat-back foam has been removed, the two white plastic clips left behind from Step 3.1.3 can be removed from the seat frame and re-attached to the seat-back trim.

3.1.11 For the seat bottom, first remove the single 14mm bolt with the socket and driver to disconnect the seatbelt latch and pre-tensioner assembly as shown in Figure 3-7 (the wiring does not need to come off in this case). Again, do not get the pre-tensioner anywhere near electricity since, like the airbag, it also carries an explosive charge.

3.1.12 Pull the seat-back adjustment lever up to expose the Philips-head bolt that holds the plastic side seat trim and remove the bolt (it helps to put the seat on its side for this part). See Figure 3-8.

3.1.13 For the driver’s side seat, you will also need to remove the cover on the height adjustment lever and remove the two Philips-head bolts underneath, as shown in Figure 3-9. Now you can remove the height adjustment lever as well.

3.1.14 Now pull sharply along the front edge of the trim to release the clip. You do not need to remove the trim completely, as you will have enough room to work by simply pulling it away from the seat. See Figure 3-10.

3.1.15 Now release all the white plastic tabs that hold down the seat bottom (as was done in Step 3.1.8) and remove the seat bottom.

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Figure 3-6: OPDS clip locations to be removed
Figure 3-7: Remove the bolt indicated by the arrow to remove the pre-tensioner assembly

Figure 3-8: Bolt to be removed to release the seat side trim
Figure 3-9: Seat height adjustment lever (remove the two bolts indicated by the arrows)

Figure 3-10: Seat side trim pulled away from the seat frame (remove all plastic clips as indicated by the arrow)
3.2 For the rear seats, there is no disassembly required for the seat bottom, but the seat backs need to be removed from the metal frame.

3.2.1 Separate the two halves of the long plastic tab along the bottom, and carefully pull out the four black plastic clips (the outside ones are visible, but the ones towards the inside of the car are buried in the felt material).

3.2.2 Fold the felt back to expose the metal frame. Reach up underneath and remove the headrest guides, as was done in Step 3.1.7.

3.2.3 With the Philips-head screwdriver, remove the screw that secures the black plastic seatbelt guide, and remove the guide as well. On split-folding models, this will be on the larger seat-back.

3.2.4 Release the side hooks and the metal frame can now be separated from the foam and seat material. See Figure 3-11. Obviously, for models with single-folding rear seat-backs, this only needs to be done once.

![Figure 3-11: Rear seat disassembly showing bottom tab (A), clip locations (B), and side tabs (C)]](image)

3.3 Now that you have the foam and material off the seat frames, the material needs to be separated from the foam. Along all inner seams, there are metal rings called “dogs” (also known as “hog rings”). These latch onto a plastic strip joined to the seam on the material and onto a steel bar molded into the foam that can’t be seen very well. There are a total of 30 dogs on each of the front seats (14 on the seat back, 14 on the seat bottom, and an additional 2 on the underside of the seat bottom). The rear seat backs have 10 dogs each, and the
rear seat bottom has 56, for a grand total of 136 dogs that all need to be opened to release the material from the foam (and eventually closed again). I guarantee you’ll be good at it by the time you’re done!

3.3.1 For the front seat bottoms, using the two needle-nose pliers, pull open the two dogs on the underside first.

3.3.2 Continue with the rest of the seat bottom, pulling back the material to expose the dogs as you go (see Figure 3-12 and Figure 3-13). Refer to Figure 3-14 for a suggested removal order. This isn’t cast in stone; it’s just what I found easiest.

The best way to open the dogs is to find the opening (you may need to rotate the dog to find it), grab one end firmly with one set of pliers, grab the other end with the other pliers and pull in opposite directions. It takes some elbow grease, so be careful not to let the pliers slip.

Make sure to leave the dog in the seat foam.

3.3.3 Open the dogs in the seat-back, referring to Figure 3-15 for a suggested removal order. Numbers 2, 3, 6 and 7 will be the most difficult since the side bolsters are the biggest in this area.

With the passenger-side seat-back, be VERY careful not to damage or touch the black OPDS sensors bonded to the foam. They are delicate and can even be damaged by the oil from your hands.

3.3.4 The rear seat bottom is the most difficult part to do because it has the most dogs and many of them are tucked deep in the foam; however, the removal procedure is the same, so it just takes more time. Refer to Figure 3-16 and Figure 3-17 for a suggested removal order. Also take note of the fact that there are also dogs on the bottom side of the foam, holding down extra strips of material.

3.3.5 For the rear seat-backs, there are 5 dogs located along each outside seam. Thankfully, the two middle seams are each held down with a long single metal bar rather than dogs, so all that’s needed is to slip one end off, then the other. I suggest undoing the five dogs first, finishing with the two bars (for each side).
Figure 3-12: Metal “dog,” after being separated to release seat material

Figure 3-13: Be sure to pull the seat material back as you go.
**Figure 3-14:** Suggested dog removal order for seat bottom (#1 and #2 are underneath the seat)

**Figure 3-15:** Suggested dog removal order for seat back (the black strips are the OPDS sensors)
**Figure 3-16:** Suggested dog removal order for rear seat bottom (bottom view). Push white tabs (located at “A”) out first.

**Figure 3-17:** Suggested dog removal order for rear seat bottom (top view, numbers are continued from Figure 3-16)
4.0 Re-Upholstery

Now that the material has finally been removed, all other parts can be set aside. In this section, I am assuming that you are replacing the two rear panels of the seat bottom and the two bottom panels of the seat back. If you are replacing less, just leave some steps out, but if you are replacing more, you will have to ad-lib some steps yourself, but the basic principles here still apply. Also make sure that you only work on one seat at a time, to avoid mixing up panels. Some panels may be symmetrical, but some are definitely not, and aren’t transferable from left side to right side, or vice versa.

If you are reading this before you buy your material (which I hope), I don’t need to tell you that you should look for a material with a color and feel that you like. A couple of other considerations though are durability and moisture/dirt resistance.

4.1 The first part of the re-upholstery process is to remove the stock panels that are being replaced so that you can use them as a template for the new ones.

4.1.1 Beginning with the seat bottom, and for each seam, fold the material inside out to expose the threads.

4.1.2 Use the stitch remover to break a thread around the middle of the seam, being careful not to pull the white backing material on the foam (see Figure 4-1). Pull the seam apart with both hands, and this will undo a whole bunch of stitches at once, giving you a good starting point.

Figure 4-1: Stitch removal process
4.1.3 Slowly go along the seam in each direction from your starting point, using a combination of gentle pulling and stitch ripping to undo the rest of the seam, discarding the black thread as you go.

4.1.4 Use the same process on the remaining 4 seams to remove the two rear panels and the 2 grey plastic “dog bars” (as I call them). I wrote notes on the back of the panels in marker so I could remember the orientation of the panels and the bars (this will be important later). Seam removal order is not important; just make sure that all the black thread is removed.

4.1.5 One thing to note is that what looks like three panels for each seat location on the rear seat bottom is actually only two (i.e. there are only two panels to replace on the rear seat bottom and not four). The two rear-most “sections” are actually only one panel! The seam that runs along the middle of it is what makes it look like two pieces. The seam still needs to be removed though, since you need to save the dog bar.

4.2 Now it’s time to prepare the material that is going to be used to replace the stock panels. There is one important thing to remember in this step if your material has a pile direction. What is a “pile direction?” Look at your new material; if it feels soft and smooth in one direction, but rough and a slightly different color in the other direction, then your material has a pile direction (see Figure 4-2), or in other words, the direction in which the fibres prefer to lay.

![Figure 4-2: Illustration of pile direction; note the difference in appearance and colour](image)
If you have a dog or cat, you already know what this is, because they typically don’t like being “rubbed the wrong way,” so to speak. My material, being a plush material a bit like suede (but more synthetic), has a very “strong” pile direction. Not to worry, this is not a problem, just something to pay attention to when making your new panels.

4.2.1 First, ensure that the original panels that you have now removed from the seat material are free from any loose threads left over from the stitch removal process.

4.2.2 Now lay each panel over the new foam sheet and cut a piece of foam 0.5 – 1 inch around the outside of the original panel. Do the same with your new material, making sure to pay attention to the pile direction, if your material has one. I opted to have the pile go down the seat back and forward on the seat bottom, as shown in Figure 4-3.

Figure 4-3: Pile direction orientation on seat
4.2.3 Lay out some newspaper to protect surrounding areas, and spray an even layer of glue onto ONE surface (either the foam or the material). Let it stand for about 15 seconds to let the liquid carrier from the can flash off, then fit and press the two pieces together (I found it easier to line the two pieces up by laying the foam onto the material rather than the other way around since the foam is stiffer). Do this for each seat panel being replaced. Don’t spray glue on both surfaces, since the heavier glue application will make sewing very difficult! The extra glue will bind the thread as the needle pierces the material, causing the thread to break.

4.2.4 Now lay the original panel over the glued material and foam and with the permanent marker, trace the shape of the original panel onto the material, as shown in Figure 4-4. Remember to pay close attention to the pile direction!

Figure 4-4: Trace the original panels onto the new material, so that the exact same pattern is used

4.2.5 Cut out the shape of the original panel to create the new panel. Make sure your scissors are sharp, since this will help ensure a clean edge on the new panel.

4.3 Once the panels have been prepared, it’s time to sew the new panels in, starting with the front seats. Step 4.3.1 to Step 4.3.4 apply to the seat bottom and the seat-back. Obviously, you’ll want to use good sewing practice here, such as pinning the seam before sewing, and beginning and ending the seam with a back-stitch.

4.3.1 Start with the seam joining the two new panels together, so that you can at least avoid working with the rest of the seat material for now. Don’t forget to also sew the plastic dog bar back in. If it’s too difficult, you can sew the seam first, then sew the dog bar back on with a second seam; it won’t hurt the material and you’ll only be making the seam stronger. The recommended sewing order (Step 4.3.1 to Step 4.3.4) is shown in Figure 4-5.

4.3.2 Next, sew the seam that joins the two new panels to the forward-most original panel, remembering to sew that dog bar back in as well.
4.3.3 Sew the two lengthwise seams. There is one dog bar per seam that needs to be sewn back in (still attached to the original material).

4.3.4 Finally sew the last seam, which joins the new material to the felt material.

4.4 The rear seats are a little more difficult because there are curved sections which, if not sewn right, will not sit flat when placed back on the foam.

4.4.1 Starting with the seat-backs (both sides are basically the same), repeat Step 4.3.1 and Step 4.3.2, then sew the outermost lengthwise seam.

4.4.2 The innermost lengthwise seam has a bit of a trick. When you are pinning the seam, you’ll notice that the new panel is straight, while the mating piece has a curve at the bottom. Make sure you force the straight edge to follow the curved edge (including while sewing), since this will force the new panel to follow the contour of the foam.

4.4.3 The rear seat bottom is the most difficult panel because it has the most complicated shape. There are also a lot of flaps that need to go back in the right places. It’s a good idea to do one side at a time so that you can continue to use the other side for reference. The only good news is that you are only replacing two panels since the middle seam runs through a single panel (rather than joining two, as explained in Step 4.1.5). Pay particular attention to the areas shown in Figure 4-6 and Figure 4-7, since there are tight curves and changes in direction that are difficult to sew flat.
Figure 4-6: Areas on the rear seat bottom that require extra attention due to curves (A) and multiple seam intersections (B)

Figure 4-7: Areas on the rear seat backs that require extra attention due to curves (A)
5.0 Seat Re-Assembly

Now that the material change is complete, the seats need to be put back together and put back into the car. This is the complete opposite to the disassembly procedure, so I won’t go into as much detail here.

5.1 Start by fitting the seat material back onto the foam. Remember to fit the dogs back on as you go. This is easier to do than removing them, and can be done with one set of pliers. As before, be very careful with the OPDS sensors on the front passenger seat. Make sure that the material is stretched flat over the foam and that the seams fit well into the matching depressions in the foam.

5.2 For the rear seat backs, slide the steel frame back into the foam, slip the hooks back over the tabs and put the clips back in. Finally, re-install the seatbelt guide and the headrest guides, making sure that the ones with the button are on the driver’s side. Make sure they click back into place.

5.3 The front seats are more complicated to re-assemble since there is wiring to be re-routed and bolts to be re-torqued.

5.3.1 For the front seats, put the seat bottom on first, making sure to slip the material under the side trim and hook all the tabs back on. Along the front edge of the seat, flip the plastic edge lining 180° up (bottom edge towards the seat) and hook it back into the metal tabs in the seat frame. This can be a bit frustrating at first, but once you get it, give it a hard squeeze to lock the lining in place and secure the material.

5.3.2 Re-attach the side trim on both sides and re-install the Philips-head screw that was removed in Step 3.1.12. For the driver’s side, also re-install the height adjustment lever and cover that were removed in Step 3.1.13.

5.3.3 Re-install the seatbelt latch and pre-tensioner assembly and torque to 32.0 N-m (23.6 ft-lb).

5.3.4 Re-install the seat back and hook all the tabs back on. Re-install the black plastic airbag frame and lay the airbag liner back in, hooking all the tabs back on.

5.3.5 For the passenger-side, re-route the OPDS wiring along the white plastic panel and plug the harnesses back into the OPDS control module.

5.3.6 Carefully re-install the side airbag and torque all four stainless bolts to 6.0 N-m (4.4 ft-lb). Re-route the airbag harness through the holes in the felt seat fabric, underneath the seat and clip the harness back into the rectangular hole near the front of the seat. Replace the original zip-tie that was cut-off in Step 3.1.4 with a new one to secure the wiring back in place.

5.3.7 Re-install the headrest guides, and as with the back seats, make sure that the ones with the button are on the driver’s side. To get them to click back into place, you will need to push harder than on the back seats.
5.3.8 Last but not least, place the hooks of the seat-back trim under the edge of the metal seat frame and press the trim back in place, ensuring that the side clips also fit into the frame as you go. Snap the two white clips on the bottom of the trim back into place on the seat frame, and hook the stretchy band back under the seat.
6.0 Seat Re-Install

The last job to do is to re-install the seats back in the car.

6.1 It’s easier to start with the back seats, since you have more room to work with the front seats still out of the car.

6.1.1 If you have split-folding rear seats, begin with the larger seat-back (the driver’s side).

6.1.2 Set the seat-back in its folded down position, remembering to loop the driver-side seatbelt over the seat-back and into the plastic slot. Make sure that the flaps in the felt material are folded up to expose the mounting nuts in the seat frame. Re-install the two 10mm bolts to join the driver’s side hinge to the seat and torque to 22 N-m (16.2 ft-lb). If you do not have split-folding rear seats, proceed to Step 6.1.5.

6.1.3 Re-install the centre hinges with one 10mm bolt and fasten the single 10mm bolt to the other side of the seat-back, torquing both to 22 N-m (16.2 ft-lb).

6.1.4 Now place the other seat-back and fasten the centre hinge as was done in Step 6.1.3, again torquing to 22 N-m (16.2 ft-lb).

6.1.5 Fasten the remaining side of the seat-back to the passenger-side hinge with two 10mm bolts (you should only have one left), and—not surprisingly—torque to 22 N-m (16.2 ft-lb).

6.1.6 Fold all the felt back onto the bolts and secure the Velcro to hide the bolts.

6.1.7 Re-install the rear seat bottom, sliding the passenger-side and centre seat belt buckles into one slot on the seat and the driver-side buckle into the other. Line up the metal tabs along the front edge and press down hard to snap them in place.

6.1.8 Re-install the remaining 10mm bolt through the metal loop on the seat underneath the passenger-side and centre seat belt buckles. Torque to 9.8 N-m (7.2 ft-lb).

6.1.9 Flip the seat-back(s) into its normal position, making sure that the striker(s) lock back in place securely.

6.2 Move on to the front seats, which are a fair bit easier to install.

6.2.1 Make sure you do not mix up the driver and passenger seat. An easy way to tell the difference is that the seatbelt buckle is always closest to the centre console.

6.2.2 Flip the seat-back forward and carefully place the seat back in the car, resting the seat-back against the rear seats.

6.2.3 Re-connect all electrical harnesses, ensuring that they lock securely.

6.2.4 Flip the seat down and move it into its proper position. Re-install all eight (for both seats) 14mm bolts and torque all bolts to 34.0 N-m (25.1 ft-lb).

6.2.5 Re-install the passenger-side seatbelt anchor (14mm) and torque to 32.0 N-m (23.6 ft-lb).

6.2.6 Flip the seat-backs back to their proper location.
YOU’RE DONE!
ENJOY YOUR NEW SEATS!!