

Cowl Panel Installation Instructions

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The higher trim levels of 2006+ (“NC”) have a front shock tower brace (FSTB) that comes stock from the factory. Lower trim levels do not have a FSTB. If one would like to install a FSTB into a car that did not have one installed at the factory, a new cowl panel (with the FSTB mounts) needs to be installed first. A good rule of thumb is that if your car has 16 inch (5-spoke) factory wheels then your car did not come with a stock FSTB brace and you will need to install a new cowl panel (this is true of 2006-2008 U.S. models; this may or may not be true of non-U.S. models or 2009+ U.S. models).

This document describes how to install a cowl panel into a U.S. Model 2006 Mazda MX-5 Touring. Instructions should be identical for 2007 and 2008 model year MX-5’s. The instructions may or may not be identical for 2009+ models (the NC was revised for the 2009 model year and at the time of this writing the revised 2009 models had not yet been released).

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Tools: 10 mm wrench and socket wrenches (3 inch and 6 inch extensions are helpful)
14 mm wrench and socket wrenches (3 inch and 6 inch extensions are helpful)
Phillips head screw driver

Parts: Cowl Panel with the FSTB mount brackets (Mazda Part Number: NE57-56-35XA)

NOTE FOR MAZDASPEED FSTB USERS: The Mazdaspeed FSTB instructions assume installation on a vehicle with an existing stock FSTB. For cars with the stock FSTB there are a number of nuts that are reused to install the Mazdaspeed FSTB bar, including two 12 mm (across the flats) flange nuts that bolt the strut tower bar to the cowl bracket. Cars **without** the factory strut tower bar (i.e., anyone needing these instructions) do not have the two existing flange nuts that bolt the strut tower bar to the cowl bracket. When ordering the cowl panel above, make sure you request the two flange nuts that bolt the strut tower bar to the cowl panel bracket. I believe the thread diameter of the bolt is 8 mm so an M8 flange nut from a local hardware store should also work (these are typically 13 mm across the flats). A deep socket will be required for to fasten these nuts. In addition, there are two washers that are used with these nuts; these washers come with the Mazdaspeed FSTB.

Time: 1-2 hours

CONTACT THE AUTHOR: If there are any suggestions, corrections, or additional information to help this document please send a PM to mbj2w at the www.miata.net forums.

The cowl panel with the FSTB mounts looks like this:



Pictured below is a comparison of the cowl panel with and without the FSTB mounts (left). The only difference between the cowl panel with the FSTB mounts is the welded mounting brackets with the mounting bolts (right):



The cowl panel without the FSTB mounts (left) and with the FSTB mounts (right) in the car is pictured below.



INSTRUCTIONS

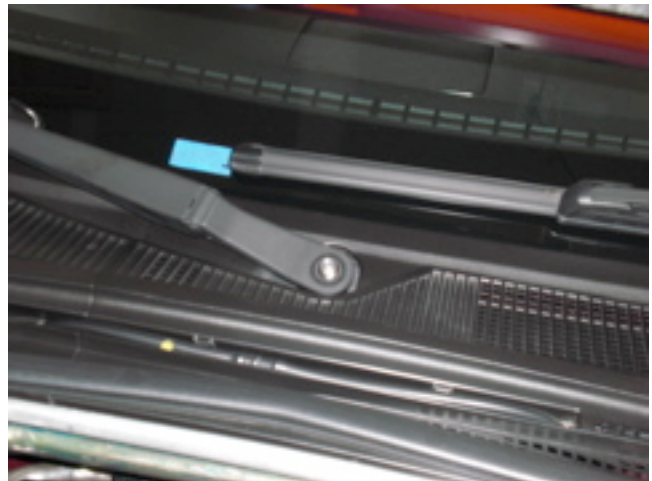
1. As a precaution disconnect both battery terminals.
2. Mark the alignment of the windshield wiper arms.



3. Remove the two rubber caps on the windshield wiper arms. These just pull straight off. Driver side removal is shown below. Repeat for the passenger side windshield wiper.



4. Remove the nuts (14 mm) holding the windshield wipers on. Passenger side removal is shown below. Repeat for the driver side windshield wiper.



5. **Gently** wiggle the arms loose. It may be helpful to lift the wiper arms up off the windshield to pull the arms off the mounts (if doing this be careful when opening and closing the hood so the wiper arms are not crushed).



6. Remove the plastic caps on each side of the plastic cowl panel. Use a thin knife to **gently** pry up on the cap. Driver's side is shown; repeat for passenger side.



7. Remove the screw (Phillips head) under each plastic cap.



8. Open the hood. Detach the rubber weatherstrip on the engine compartment side of the plastic cowl. There are several plastic push clips holding this seal and the plastic wiper cowl to the metal lip. You only need to remove the clips that go through both the plastic and the metal lip. Squeeze the clips from the bottom to pull them out. The weatherstrip can remain attached to the cowl.



9. Lift up on the plastic cowl. Detach the plastic washer fluid hose at the plastic Y-connector underneath the plastic cowl (left). Unhook the hose from the hooks on the underside of the plastic cowl and pull the hose out of the hole on the passenger side of the plastic cowl.



10. Remove the plastic cowl piece by sliding it toward the front of the car about an inch and gently pulling up on it. Pull the cover out toward the rear of the car. The plastic cowl is actually two pieces but should be removed as a single unit (the weatherstrip and wiper fluid hose is still attached to both sides).



With the plastic cowl removed it will look like this:



11. Unbolt the two 10 mm bolts that hold the windshield wiper motor. Note: this is not necessary to remove the original cowl panel, but the extra clearance will be needed to install the new cowl panel (with the FSTB brackets).

Driver's side:



Passenger side:



12. Remove the plastic panel on the passenger side next to the wiper motor by unscrewing the five plastic screw clips.



13. Remove the 8 bolts (10 mm) that hold the cowl panel in place.

14. Two can be seen removed here on the passenger side. Repeat for the two analogous bolts on the driver's side.



15. Two bolts have been removed per the left picture below and the final two bolts have been removed per the right picture below. There is not a lot of room to work here so you may have to be creative with the tools (and patient) to get everything unbolted. Be careful not to drop any of the bolts/nuts!



16. Lift up on the cowl panel and remove.



17. Remove the 3 nuts (10 mm) that attach the air conditioning hose brackets to the firewall. Two of the nuts are on the driver's side (blue circles pictured below right); one is on the passenger side (not pictured). NOTE: No air conditioning lines need to be removed and the air conditioning system stays sealed; only the brackets holding the lines to the firewall need to be unbolted. The extra clearance created from unbolting the brackets is needed to fit the cowl panel with the FSTB brackets in place.



18. Unbolt the bolt (10 mm) holding the windshield wiper motor to the firewall (green circle pictured above right).
19. Gently lift the windshield wiper motor assembly up and prop gently onto the lip of the firewall. Do this gently to prevent damage to the wires connected to the motor.



20. Place the new cowl panel in place by sliding it in at an angle while maneuvering the air conditioning lines over the long bolts that are welded to the cowl panel bracket. Bolt the new cowl panel into place with the 8 bolts that held in the original cowl panel.



21. Putting it back together is the reverse of disassembly. Don't forget to re-attach the wiper fluid hose! When assembly is complete test the wiper fluid and wipers to make sure everything was reassembled correctly.
22. To install the FSTB follow the manufacturers supplied instructions. The FSTB will come close to the air conditioning lines but should not be in contact with the lines.

23. Drink a cold beverage of choice and admire your work.

