

## THE MINI AERO GRILL INSTALLATION ON MCS STOCK FRONT BUMPER

### Original instructions (from [www.r53w11.com](http://www.r53w11.com)):

Some basic rules:

Take your time, re-read all you instructions, and make sure you have all your parts and tools.

All of these modifications are done to a 2002 model year, July build, USA spec MINI Cooper S - your car may vary in equipment, options, and construction - some things I did may not work on your car .

Please note, if you also plan on mounting the Driving Lights please review that page before beginning - there are some modifications that need to be done before you put on the Upper Grille.

Parts you need:

**Top Grille: part # 51 13 0 140 259 MSRP \$51.25**

**Top Grille Front Bumper: part # 51 11 0 140 255 MSRP \$37.25**

Thanks go to Sam J who has already done the grille install with great results, most of the actual instruction text is his words (used with permission).

And to my wife for not killing me when she found her 2 day old car like this:



## The Upper Grille - The Easy Part

Use a small straight slot screwdriver to wedge in behind the plastic washers and self tapping bolts to assist in prying them up as you unscrew the 10mm self tapping bolts. Be careful here as you will have to reuse the bolts again - or you can get new ones at the dealer or a hardware store. If this was overly difficult for you it would be best to just stop now! :-)

## The Lower Grille The Hard Part

The mother of all grilles! This is it people, this is what will set you apart from all the others. The middle aero grille (or lower grille) was never made to fit on the stock bumper, it is made for the aerodynamic kit's deeper front air dam. However, with some work, it can be fitted to the stock bumper - saving you the cost of the Aero Kit front spoiler which would also need to be painted.

Sam J. off of the Roadfly MINI Message Board kindly sent me his write up on the grille install and I'm going to quote at length from his notes here - as what he has written is better than what I could do! His notes are here intact and I have posted some additional comments at the end. **Read everything before you begin!**

*STEP 1: Removing the front bumper cover....*

I jacked my MINI up and put it on jack stands so that I could remove the tires. This not only gives you more room to remove the bumper cover, but I cleaned the brake dust off and gave them a good wax before I installed them....

To jack...I used my shop jack. Look under the car and about center point, you will see the body molding protruding downwards. I placed a 2x4, about 2 ft long under that part, to give the car stability. Used the two "jack points" to put jack stands under to keep the car stationary. Repeat on the other side.....

Removing the bumper cover is straight forward. The hex head bolts accessible from the front wheel wells are 8mm, the center three fasteners which attach the bottom of the cover to the bumper are 10mm, and the outer two are Phillips. The top two bolts are TORX T30. As you remove these, keep a hand on the cover as it is only held by a couple of plastic tabs.

When you have the cover free, pull it out enough to get to the lighting wires. These are the basic twist on attached and will allow you to completely remove the cover.

Now, take a look at the bumper cover.

The existing lower radiator grille comprised of a lower section which is chromed, is held in place by tabs into the bumper cover. If there is adhesive on the tabs, just remove it. Carefully remove this section by rocking it back and

forth until the tabs are released.

Save this piece, as you will need it to use as a template later....

The upper (straight) section is body colored plastic which is held in place by double sided tape. I worked my fingers under one side and just keep lifting until I got my fingers under the tape, then worked my way to the other end, until this piece was loose and off the cover. Also, save this, you might want to change all of this back to stock. Don't worry if there is tape residue left. Use the cotton balls with the finger nail polish remover to take off the residue. Then I used some warm water to clean this protruding piece, which, at this point, will be painted the same as the car color.

Now you should have the stock radiator grille pieces off the bumper cover. Clean the entire cover, and dry completely. Using the masking tape, and newspaper, (so no over spray) mask off the cover so that you have access to the "protruding" piece, and spray paint this flat black. By this time, you should see why.... Place the cover out to dry.

Now the fun begins.....

## STEP 2:

Using the chrome piece, (upper piece) as a template, carefully trace out the outline of each end, on the black mesh grill. To do this, turn the chrome piece upside down and place it over the top part of the black grille piece. Using the white pencil, trace an outline. This will be the area that needs to be modified so that the black grille piece will fit into the sides of the bumper cover. Now, trace along the bottom part of the black grille piece from end to end. HERE IS WHERE YOU NEED TO TAKE YOUR TIME.

I used the thickness of the side of the black grille and added about 1/8". Make sure that you continually check the locations of the tabs, as they will help to hold the black grille piece into place on the bumper cover. At this point, you should be seeing the reasoning of the tracing and using some of your own ideas on the outcome...!!

Once you get to this point, there is no turning back...!! Take a look at what you have done. Make any adjustments that you would like. Remember.....

MEASURE ONCE, MEASURE AGAIN...MAKE SURE...THIS IS WHAT YOUR MINI WILL LOOK LIKE!!!!!! Do not want to scare you, but once you start cutting, it's a done deal.... J

Now, being very careful, start to cut.... I did not cut up to each line on the first cut. This will allow you to "dry fit" the black grille into the cover as you go along. Don't be alarmed with the plastic build up. Using a sander attachment or sandpaper, you can get rid of this. Continue cutting until the black grille piece fits into the bumper cover the way that you want. Make sure that all cut areas

are smooth, clean, and ready for adhesive.

Get the bumper cover that has been drying, At this point, I used some plastic weld that I bought at Auto Zone. Don't remember the name, but it came in a syringe type that you could mix within the container and apply with the end of the syringe. Apply the adhesive to the areas and to the slots of the black grille that, I hope you left when cutting, which will come into contact with the bumper cover. DO NOT USE TOO MUCH.....

A LITTLE WILL GO A LONG WAY!!!! Using too much, the excess will flood out on the bumper cover and look bad!!!!.

Once you have the adhesive on the black grille piece, attach to the bumper cover, and if necessary, hold into place with some tape until the adhesive sets. I let mine set for at least an hour just to make sure that there would not be any problems....

### **Notes on Sam's write up:**

I didn't remove the wheels - you can do it without, but it is a tight squeeze.

The bumper was hard to pull off, even after unbolting everything, I think the Z shaped tabs for the bumper alignment were what was catching.

Basically I shaved off 1/4" along the entire bottom of the grille (curved portion) and along the tops about 2 1/4" in from the edges. I left all the tabs on the grille and cut new holes in the stock bumper for the tabs to slide in. Make the slots wider than the tabs on the grille to allow room for adjustment.

Warning!!! - Once I slid the tabs into the slots I cut in the stock bumper the fit was very tight and it was next to impossible to take the grill back off - so be sure you are ready to fit it.

An alternate method would be to shave all the tabs off and just glue it in place - this would allow you more chances to test fit the grill but then it wouldn't be attached as secure.

### **Here are some pictures to show you what was removed on the grille.**

From the dotted line back to the grille body the plastic was removed, note the tabs were left intact. The material on the very edge of the curve was also removed - it is just not highlighted in the first picture:



This is the top of the grille showing the portion removed there:



That's about it, between Sam's instructions, my pictures, and your own research on the threads on this topic you should be able to pull this off. Good luck, post some pictures on the message boards showing your finished handiwork, and please post any additional hints or tips for the next guy or gal to benefit from.



## Addendum One

From Bruce Balmer:

Here's what I recommend over and above the guide (lower grille only).

You remove the bumper shell. You remove the lower grille. You paint the piece of bumper behind the lower grille black. You cut slots in the bumper shell to match the aero grille tabs. You remove a lot of material from the aero grille leaving the tabs intact. You push the aero grille on and remount the shell.

You need a good 4-6 hours to do it right (paint doesn't dry that fast!). Actual labor is about 2.5 - 3.5 hours. You may want to see if someone can apply black vinyl striping in the same location (make it all black). The paint is chipping off over time.

Read the link instructions and get the tools. Torx bits are a big deal with the car (Home Depot/Lowes).

I took a dremmel tool and removed the material around the perimeter of the grille. You'll take a scary lot of material off. Don't sweat...it's the cheapest part you're touching in the whole process. The saw disk did a great job of removing the material (see instructions). Now here's where I goofed up and where you don't have to.

The lower slots in the bumper shell can be enlarged with the saw disk. The upper slots cannot be enlarged with the saw disk and need to be enlarged with a mill bit (or something similar). I ended up running short on time and took the tabs on the upper part of the grille off and glued the grille in place. Tabs are included in the bottom portion of the aero grille, the top is glued with no tabs. It's still secure, but it's not as good as it could have been.

**From Paul Giers** (response to the above instructions):

The dremel tool really did the trick on the bottom piece; in fact, I used the 1/8" drill bit for it to do the top slots as well. I used a cutting disc for the bottom slots, but if I had it to do over again, I would have used the drill bit for those too. The trick I came up with was this:

The trick I came up with was this:

1. After all factory grill work is removed, find the center of the bottom grill opening (there's little circle between the two raised louver pieces that is dead center);
2. Make marks at the top and bottom of the opening—these mark the center point of the top and bottom tabs on the new grill piece;
3. Along the top of the opening, mark slot center points at exactly 5 \_" intervals in both directions from the center mark;
4. Along the bottom, mark slot center points at 5 1/8" intervals in both

directions from the center mark;

5. I found the optimum slot width to be  $\frac{1}{8}$ " wide and about  $\frac{3}{16}$ " high, so simply cut out about  $\frac{3}{8}$ " on both sides of each mark.

With the  $\frac{1}{8}$ " drill bit in the dremel tool, you can drill one hole in each of your center point markers, then a hole on each of side of it at about  $\frac{3}{8}$ " and then use the side of the bit to plow through the material between the holes. At high speed, it essentially melts the plastic out, making a very tidy slot. After cutting  $\frac{1}{8}$ " of material off the bottom and top sides of the grillwork, it just popped into place first time and didn't really need any trimming to make it flush!. I also tried using some high-temp flat black spray paint designed for painting grills and such, so we'll see if that holds up any better than regular spray paint.



Thanks go to Aaron at [r53w11.com](http://r53w11.com) and Bruce and Paul for further clarifying things.

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