Invisible Bracket for C8 Removable Front Plate

For those C8 owners who would like a really attractive option for the front license plate and that is also easily removable for shows, here is the best idea I've seen, thanks to CMCS Member Jared Smith. Total cost was about \$60.00. Here's what the finished product looks like:





1.0 fl oz (29.5 mL)

The parts list:

1. 12 small magnets, <u>K&J Magnetics: RE22CS-S-N52</u> (<u>kjmagnetics.com</u>)
 (Dimensions: 7/8" od x 1/8" thick with countersunk hole for #8 screw;
 Tolerances: ±0.004" x ±0.004" x ±0.004"; Material: NdFeB, Grade
 N52; Plating/Coating: Ni-Cu-Ni (Nickel); Magnetization Direction: Axial (Poles
 on Flat Ends); Weight: 0.319 oz. (9.05 g); Pull Force, Case 1: 12.28 lbs; Pull
 Force, Case 2: 47.14 lbs; Max Operating Temp: 176°F (80°C) A note of
 caution: These magnets are brittle and very strong. If you drop one on a
 concrete garage floor it may break apart. Separating them can be challenging

and if you're not extremely careful you can injure yourself. Follow the directions to separate them that is included with the package. (Note: I bought enough magnets to have two at each of the spots on the trim panel although one might be sufficient.)

- 4-#8x32, by 3/8 inch long, stainless screws (non-magnetic) to hold a single magnet to the license plate.
 Note I did not use any washers in this set-up.
- 3. 4 Stainless Nylock nuts to fit the above screws.
- 4. Jared used JB Weld. I used Amazing Goop because the store didn't have the JB Weld.
- 5. Hobby felt with double sided tape.

<u>Instructions</u> (Read through all of the instructions before you start this <u>project</u>):

1. Put a screw through a magnet at each of the four license plate holes and attach a Nylock nut to hold it in place. GENTLY tighten, but NOT too tight or you'll crack the magnet! See pictures below.





2. Now remove the front trim panel where the license plate bracket normally goes. You can do this using a plastic flat trim tool or small flat head screw driver by carefully inserting it along the top right edge until it pops and do the same on the left side, then remove the trim plate.

3. I measured the plate to find the center from side-to-side, and marked it, so as to bend it in the middle so it would match the contour of the trim panel.

4. Tape the license plate with the magnets screwed on to it to the trim panel to hold it exactly where you want it to be when it's done.

5. To determine exactly where to position the magnets and the adhesive you are using on the trim panel place a magnet on four positions of the back side of the trim panel and



they will jump into place. Note the position of each magnet

- 6. Remove the magnets and rough up the surface where you will be gluing the magnets.
- 7. Place a glob of adhesive in those exact spots where the four magnets are to be glued onto the backside of trim panel.



- 8. Place two magnets in each of the four spots-one on top to the other so that you have two magnets in each spot on the trim panel. You may note that there is a broken magnet at the top right position.
- 9. You'll have about an hour before the JB Weld sets up, so this is your opportunity to check for proper placement of the magnets

- 10. Once you have the magnets in place, let the adhesive fully set.
- 11. (Note: if the nickel plating on the magnet is scratched or broken, or exposed to moisture for a long period, the magnet will likely corrode unless it is sealed. (See FAQs on the K&J website for this and safety considerations). So, I painted the magnets in place with RUST-OLEUM Painter's Touch paint to protect the magnets against corrosion. The picture below shows the backside of the trim panel with the magnets painted.





12. With the license plate off the trim panel, attach strips of the Hobby Felt on the back sides of the license plate where it might rub against the trim panel. Here's what it looks like "dressed."



- 13. Install the trim panel on the car, and the license plate whenever you wish. It goes on and off easily.
- 14. You are ready to enjoy your new magnetic front license plate bracket system.
- 15. If you have any questions or suggestions about this, please email me at 427jockey@gmail.com