Tools Needed – 8, 10, 12mm sockets, pliers, flat screwdriver, 8, 10, 12mm wrenches

1. Remove Battery (make sure you have your Navi and Radio security codes, you'll need them when you reconnect).



2. Remove plastic battery tray and metal battery support. Use pliers to squeeze and push-out 2 wiring harness fasteners along right side of support (circled below).



3. Remove air cleaner



4. Remove intake duct



5. Relocate Fuse Box – use flathead screwdriver to release clip



6. Remove Clutch Master Fluid Reservoir (just unscrew from chassis – leave attached to hose.



Now that your engine bay is a complete mess, the hardwork can begin...



7. Remove Hard-line from Master Cylinder (hardest part of the job IMO) – First of all, the Master Cylinder is in the small recessed area behind the strut tower, below the cowling, to the right of the Brake Master Cylinder making it almost impossible to access. Looking at it, I suspected I would need to unbolt the line, but when I put a wrench on the line, it just started turning the fitting. Then, looking at the new Master, I realized I needed to remove the 'U' pin. I was able to do this using a stub screwdriver and slip-lock pliers.





Removed 'U' Pin – save this, you don't get a new one with the new Master

Now that the Master is free, time to move to the interior work...

8. Remove knee panel – just clips and grommets (try not to push clutch pedal since the master still contains DOT 4 fluid).



9. Disconnect clutch pedal from Master Cylinder (safety clip)





Removed pin and safety clip

10. Remove Master Cylinder Nuts - be careful not to lose these behind carpet



11. Remove Master Cylinder from Engine Bay



- 12. Disconnect hose from old Master Cylinder and flush out old fluid.
- 13. Reconnect hose to new Master Cylinder (if you fill reservoir and hose with fluid before reconnecting you will minimize bleeding time).
- 14. Snake new Master Cylinder and reservoir back through engine bay and re-insert through firewall.

15. Replace Master Cylinder nuts inside car (be careful not to lose these behind carpet). Do the lower nut first – it's easy to access, and will help pull the Master Cylinder into place. The upper nut is really difficult to reinstall due to limited space (the dealership would probably say they need to remove the entire dashboard and much more from the engine bay). I did this by making a tab out of duct tape and sticking the tab to the nut so I had something better to hold onto while squeezing my hand up behind the bracket



16. Insert hard-line into new Master Cylinder

Photo of hard-line before replacing Master Cylinder for clarity

17. Reinsert 'U' pin to secure hard-line in new Master Cylinder – space is very tight, but I was able to get a pair of slide-lock pliers in there to squeeze the 'U' pin into place. I also needed to depress the hard-line fitting into the new master cylinder with a long screwdriver while inserting the pin. (that's the old Master in the picture. I didn't take pictures of the re-assembley).

- 18. Reattached the clutch pedal to the new Master Cylinder.
- 19. Bleed the clutch (procedure outlined in another post)
- 20. Put everything back (reverse steps 1-6).