

# Starter Brush Replacement

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- **READ THE MANUAL FIRST!**
- *You will need a FLAT surface to complete this repair for your safety.*
- **READ ALL OF THIS PROCEDURE SEVERAL TIMES SO THAT YOU UNDERSTAND IT. DO NOT PERFORM THE PROCEDURE OUT OF ORDER. THIS WILL RESULT IN DEATH OR SERIOUS INJURY.**
- **Read our Safety page too.**
- **Get the full size photos from Starter brush Replacement page**

We have available for download the complete procedure on our [DOWNLOADS](#) page

## TOOLS NEEDED:

1. 10, 13, and 17mm combination Wrenches
2. Impact Driver
3. **Hammer (best is a four pound sledge)**
4. **Soldering Gun (see soldering technique)**



## Parts Needed:

1. Brush Set

## Procedure for replacement

1. Remove starter using starter removal procedure
2. After removal of starter, clean up the starter with a degreaser.  
*Dawn* dishwashing detergent works well or *Easy Off* oven cleaner



(but only when engine is hot)



3. Once the starter is cleaned off, using the impact driver and hammer, break loose the four bolts at the end of the starter.



4. Now remove the two bolts from the end of the starter and remove the two bolts holding on the end plate of the stator.



5. Remove the end cap to the stator.



6. Gently remove "C" clip



7. Remove and save the spacers



8. Gently tap the back end cap of the starter with a hammer.



9. Once the end cap is loose, SLOWLY pull the end cap off,



exposing the brushes.

10. Unscrew the screw holding on the brushes.



11. Be sure to clean out the grooves of the stator before installing the new brushes.

12. Then unsolder on the old brushes from the stator as shown by the



green circle.

13. Then solder on the new brushes to the stator.



14. SLOWLY push the end cap on



15. Gently tap the back end cap of the starter with a hammer.



16. Reinstall the spacers



17. Gently reinstall "C" clip



18. Reinstall the end cap to the stator.



19. Now insert the two bolts into the end of the starter and insert the



two bolts holding on the end plate of the stator.

20. Using the impact driver and hammer, Tighten the four bolts at the



end of the starter.

Now proceed to reinstalling the starter

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