

## Clutch installation and spring replacement tutorial for all scooters

Here is the typical clutch and variator cover.



First, take out all of the screws with an allen wrench.



**This is what you see after taking off the cover. On the left is the variator and on the right is the clutch.**



**Now we have to take off the clutch bell (or clutch housing). You can use an impact wrench or standard hand tools to unscrew the nut. With hand tools, you will need an oil filter chain or strap wrench to hold the bell. Turn in the direction shown in the illustration.**



Now you will see the clutch and the bell (or heating cover).



Squeeze the clutch pulley halves apart. The belt will become slack and loosen, then you will be able to take out the clutch assembly.



If you simply want to change your clutch your job is done here!

**On your left is the clutch bell and on your right in green is the clutch nut.**



**To take out the clutch nut you will need to put it in a vise. Don't tighten it too tight - just enough so that it is held firm.**





Then use you oil filter chain to turn the clutch so that the nut will come loose.



Now you have to turn like in the illustration. **BE CAREFUL** because when the screw comes loose the big spring will suddenly let go up and in your face. So for a safety measure put your other hand tightly at the 3 green arrows.



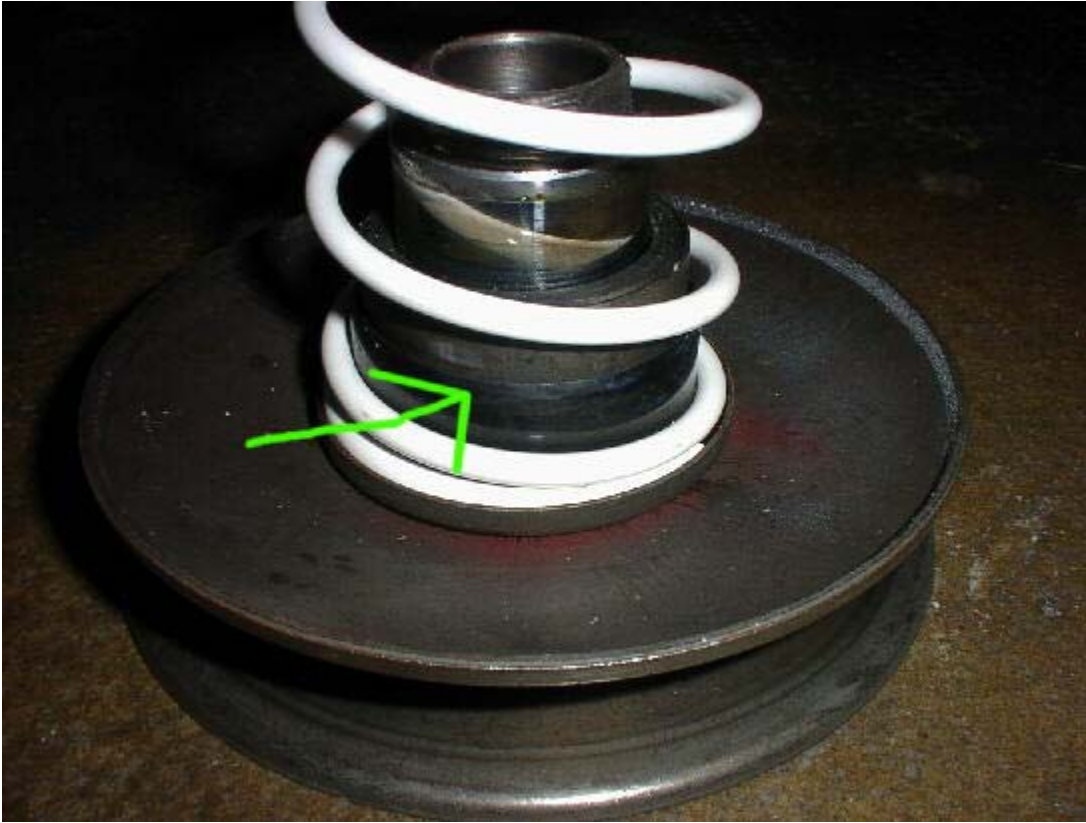
After taking out the nut this is what you should see



When you take it out in pieces this is what it is going to look like



To change the torque spring you only have to replace it and reinstall the safety bolt (if there was one).





To change the clutch springs, use a screwdriver. Depending on scooter model their is usually 2 or 3 springs.



Be sure when you replace them that they snap properly in place.





To put them back together, use a screwdriver or a pair of pliers.  
Watch your fingers - the springs are under tension.



Put the plates back together.



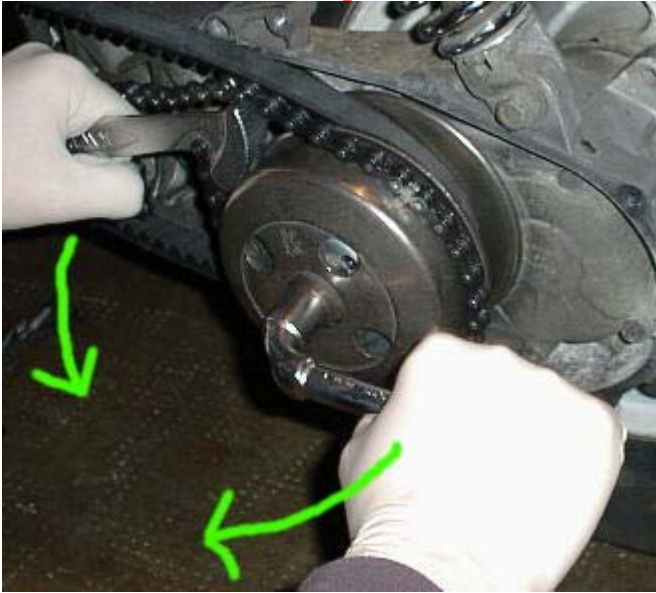
**Reinstall the nut to the proper torque. Standing on the assembly will help.**



**Reinstall the clutch. Squeeze it again to get the belt on before installing.**



**Put on the bell and tighten it to the proper torque.  
Follow the arrows in the picture .**



**Reinstall the cover and your job is done!!!!**

