

## **OVERVIEW:**

Many people who own Casablanca fans with broken flywheels will try to remove the lower switch house cap area from the shaft to access the flywheel. This cap is press fit by machine onto the steel shaft which runs through the center of the motor and then out the top. Although some individuals may have success removing the lower cap from the steel shaft, it is not the way the fan is normally repaired. To repair the fan the a steel rod the thickness of the steel shaft must be used to push the motor's steel shaft and switch house out of the motor.

## **REPAIR STEPS:**

1. Turn power of at breaker box
2. Remove the fan from the ceiling
3. Remove all items in the switch house cap area (the area above the light kit), and disconnect any wires in that area paying attention to where they go (write it down!) Once the lower contents are removed any plastic connectors (if applicable) attached to wires which are coming down out of the motor shaft must be removed. You must write down where the wires go on the connectors prior to removal.
4. The three bolts on the top of the motor which hold the downrod to the motor must be removed. This will expose the top side of the inner motor shaft and wires.
5. The wires which travel down the switch house shaft and into the lower switch housing area must be pulled out the the top end of the motor shaft and marked with a piece of tape (so you will know which wires go back down the shaft later.)
6. At this stage there should be no wires going down the switch house shaft.
7. Remove the round retaining ring from the switch house shaft by prying a slotted screwdriver underneath it. (Wear safety glasses while removing this ring.)
8. Make an identifying mark on the top of the motor (scratch the paint) and a mark on the switch house shaft (scratch surface.) The importance of this step comes later!
9. Make out of pieces of wood a box which has four sides with an opening in the top and the bottom. The opening should be the size of the fan switch housing and the box should be around 4" deep. Set the wood box on the floor with an opening facing up. Place the fan switch house into the opening on the box. The switch house cap must slide inside of the wood box with the fan housing/flywheel

resting on top of the wood box. (To prevent scratching of the housing prior to setting the switch housing into the square hole, drape a piece of fabric over the square hole.)

10. Take a steel rod which is the same diameter as the switch house shaft (or slightly smaller than the switch house shaft) and place it over the switch house shaft which is protruding from the top of the motor. Take a hammer and pound the switch house shaft through the motor. Make sure not to pinch any wires (all wires at this point should be out of the motor shaft.)

11. Take the fan out of the wood box and remove the switch house/ switch house shaft from the fan motor.

12. Remove the Allen screw from the old flywheel and slide flywheel off the motor.

13. Put the new flywheel back on the fan. On some fans the flywheel screw lines up with a flat surface on the motor. On other fans the screw is inset into a round recession in the motor. If in doubt, look for the impression the other screw left on the shaft to determine placement. The new flywheel may use a different sized Allen screw and may require a different sized Allen wrench.

14. Set the motor upside down in the box with all wires coming out of the top of the motor placed inside the box as to not pinch the wires during the following steps (do not have a wire between the top of the wood and the housing).

15. Set the switch house shaft back into the motor at a 90 degree angle from the way it came out (you do not want it to be put back to the same position, if you do it may be loose. This is why you made a mark on both the motor and the shaft in step # 8. )

16. Pound the switch house shaft back into the motor using a hammer and the steel rod you used earlier. Place the steel rod on the center shaft and pound. Do not pound on the outside area of the switch house hub or it may bend.

17. Pound the shaft into the motor until around 1/4" to 3/8" of the shaft protrudes from the top motor area.

18. Put a new retaining ring onto the motor shaft. When looking at the retaining ring, the middle tong area should be in a slight pointing up position verses pointing down. There is a special tool for this which consists of a solid steel rod with a depression in it which allows it to be placed over the motor shaft and pounded with a hammer which pushes the retaining ring into place without

pushing down the motor shaft. You will have to improvise your own tool or use a hammer and a couple of screwdrivers to get the retaining ring on.

19. Stick the appropriate wires back down the switch house shaft down into the switch house area.

20. Put the wires back onto the plastic connectors you removed them from using the wiring notes you made earlier. (If applicable.)

21. Stick the wires which came out of the downrod back into the downrod and reattach the downrod back to the motor using the three bolts (make sure not to pinch any wires.)

### **AFTER THE REPAIR:**

In many cases after this repair a slight bearing noise may be heard. This is not abnormal and is not preventable. In many cases, after running the fan for a period of time, this noise will subside as the bearings tumble back into position and become relubricated. If the noise does not subside a new motor must be purchased. If your fan motor is within the warranty period as defined by your warranty card at the time of purchase (requires receipt, purchase from authorized dealer, original owner only) you can send the fan into Casablanca directly for replacement under warranty terms. If your fan is out of warranty depending on the age of the fan and the cost of purchasing a new motor out of warranty you may want to consider the purchase of a new fan if the noise does not subside.