



# Repairing GE Washer WPGT9350COPL Drain Pump

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Written By: snaxxus



## INTRODUCTION

The washer would not drain and an error message would appear on the display. We discovered the drain pump had a brushless motor and a large amount of sand jammed the motor. We disassemble the pump and remove the sand freeing the motor.

Don't flood your laundry room. We have a drain in our floor that accepted a few gallons of water.

## TOOLS:

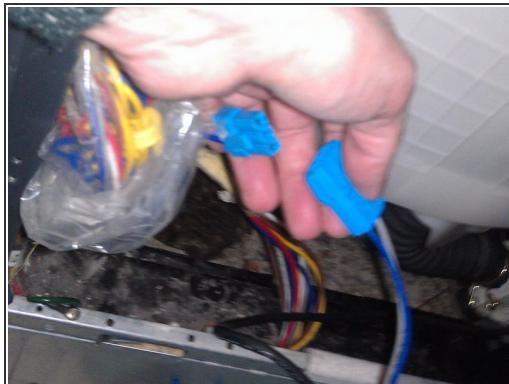
- Pro Tech Toolkit (1)

## Step 1 — Repairing GE Washer WPGT9350COPL Drain Pump



- Follow all basic appliance repair safety protocols.
- Make sure the washing machine is drained of water. Since the washing machine drain pump is malfunctioning this may be accomplished, strangely, by blowing air into the drain tube. Then continuing the cycle in the menu. I don't know what to do otherwise because this worked for me.
- Unplug the power plug from the wall outlet.
- Remove the back panel. Four Screws.

## Step 2



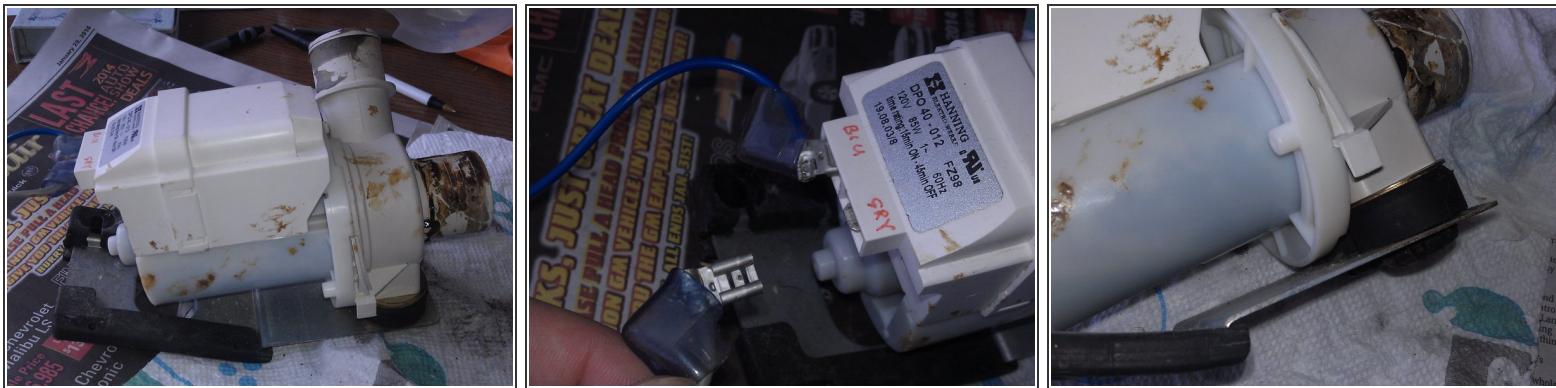
- There is a plastic bag around the wire harness at the left edge of the opening.
- Untwist the wire wrap and open this "bag".
- Remove the pump wire from the wire clips along the bottom of the machine until the pump wire is free except where it connects to the pump and the wire bundle in the "bag".
- Unplug the pump wire connector.
- With the machine completely drained of water remove the hoses from the drain pump. !!!BUT WOAH ANY WATER LEFT IN THE MACHINE WILL FLY OUT OF THESE HOSES!!! I encountered a few gallons but there can be much much more depending on how well the machine is drained.

## Step 3



- Remove two screws from the pump mount. These are located on the side of the pump closest to the opening.
- Rock the pump back away from you off of the screw holes and pull the pump free.

## Step 4



- Bring pump to a bench.
- Label the terminals with a permanent marker indicating wire color.
- Remove the screws from the base and remove the base.

## Step 5



- Remove the rear cover from the pump motor. (Notice it's a brushless motor, NICE! :) )
- Look at the side of the pump body and locate a latch. (image 2)
- Carefully lift the latch with a screwdriver and rotate the pump body clockwise. The pump body will come off.

## Step 6



- There is a clip at the top of the pump motor that can be undone with a flat screwdriver.
- The motor coils and cover can then slide back leaving just the plastic motor body containing the magnetic spindle.
- The plastic motor body has a large reservoir to collect any accumulated debris and keep it separated from the motor spindle.
- This was packed with accumulated sand and interfered with the motor spindle.

## Step 7



- The pump is now fully disassembled. The non-electrical parts can be cleaned, specifically the motor body's dirt reservoirs.
- Repeatedly fill the motor body with water and flush out the collected sand. The plastic flange under the impeller can be lifted slightly allowing an easy path for the sand and water.
- Clean the pump body.

## Step 8



- Reassemble the pump.
- Place the motor coils back into the cover and slide them back onto the motor body.
- Slide the rear cover back onto the motor coils so the terminals are in position through the back of the cover.

## Step 9



- Replace the o-ring on the pump. I used a small amount of petroleum jelly to lubricate and seal the o-ring.
- Align and twist the pump body into position counter clockwise until the latch engages.
- Reinstall the pump base with its two screws.

## Step 10



- Replace the wires on the terminals according to the colors that were marked earlier.
- Congratulate the engineer who designed this repairable pump. It's good.
- Replace the umbrella. The pump is reassembled. You saved \$150+.

## Step 11



- Reinstall the pump into the washing machine.
- Hook the back edge of the pump into its mounts and rock it forward onto the mounting screw points.
- Install the two mounting screws.

## Step 12



- Apply a thin layer of RTV to the hose fittings of the pump.
- Attach the wash drum hose to the hose fitting in the center of the pump. Align the hose clamp and make sure it's tight.
- Attach the laundry tub hose to the top hose fitting. Align the hose clamp and make sure it's tight.

## Step 13



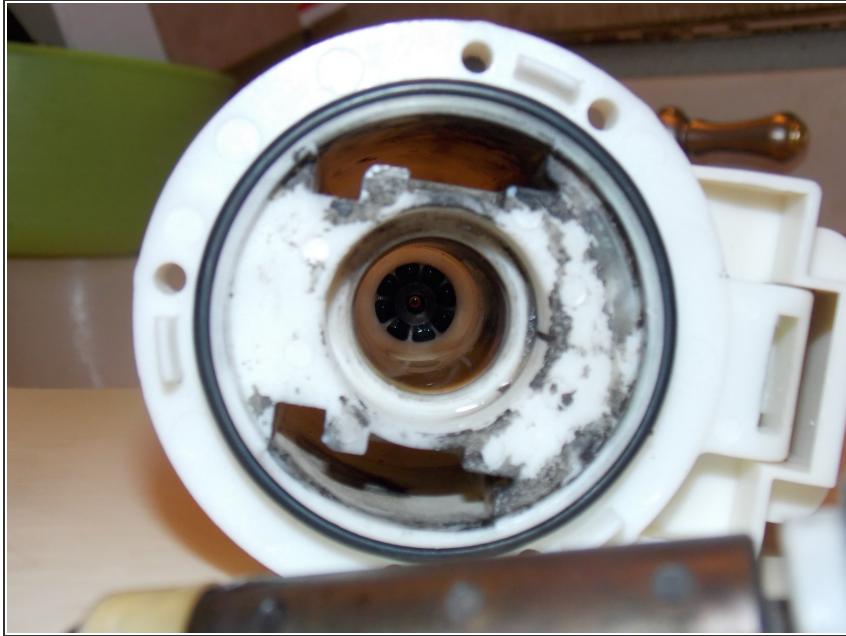
- Route the pump wire back through the clips that are built into the floor of the washer.
- Reconnect the pump wire plug.
- Tuck the connectors back into the "bag" and secure the wire wrap.

## Step 14



- Reinstall the plastic pump umbrella, since it falls off in the installation process.
- Replace the back cover of the washer.
- Allow the RTV to cure for a few hours before testing the repair.
- Good luck!!! and always help the Grammas :)

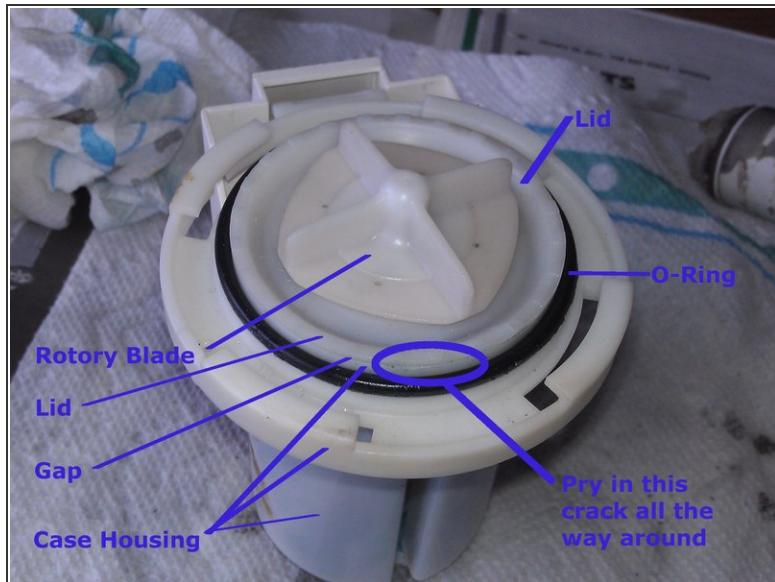
## Step 15



- [The following 2 steps were added as an optional addendum to step 6 by a different author]. It is possible that your pump may be suffering from the same problem as mine where the center chamber with the magnetic core has also gotten waterlogged. If the steps provided above did not fully resolve your issue and you really want to try and fix this pump yourself, You may need to take this to the next level.
- First, be sure the pump motor has not burned out. If the pump still works after a fashion, but just not sufficient to get the job done, then the motor is most likely still good.
- You can take a multimeter, set it to read Ohms and place the multimeter probes on the 2 terminal leads on the back of the pump. If you get a reading of zero, then the pump motor has burned out and must be replaced.
- If the pump motor is still good but you are looking at needing to replace the pump anyways and you are handy, then you may wish you examine the magnetic core to see if there is water in the center chamber where the core resides. Inside the pump case, there are 3 chambers, 2 on the sides and 1 in the center.

- The 2 chambers on the sides are not water sealed and water and grit can get in and rot and really putrefy. That is what all that black junk was that was coming out of the pump.
- The center chamber is where the magnetic core resides and this needs to remain free from water and debris. It needs to be lightly greased so the magnetic core spins freely. There is a rubber stopper on the top of the magnetic core which should keep the center chamber dry.
- If the rubber stopper is worn, then water will get in and decrease the pump's efficiency. To examine if this is your problem, you need to gently remove the magnetic core.

## Step 16



- For this discussion the core comprises of the following as one unit: rotary blade, lid, rubber seal, spindle and magnet. To remove the core, gently pry with a flat head screw driver all around the top edge and gently lift the core out of the case housing.

- The location to pry is NOT directly under the rotary blade, but under the cover piece which resides directly BELOW the rotary blade. If you look at the picture for this step, you see the pump standing upright.
- Going from top to bottom, first is the rotary blade, then below the rotary blade is the lid (which covers the pump case housing), then there is a small gap between the lid and the case housing and then the black o-ring and then the rest of the case housing. Gently pry in the small gap between the lid and the case housing to remove the core.
- The core is only being held in place by the rubber stopper and the magnetic forces. One advantage to removing the core, is that you will have full access to clean the junk out of the side chambers in the pump and it will be easier to clean out.
- However, if you do decide to do this step, you need to realize that you may compromise the integrity of the pump by introducing water and other foreign material into the center chamber. So, only do this step if you are prepared to replace your pump or are handy and able to refurbish it.
- Once I removed the core from my pump, I could clearly see that the center chamber was also full of putrid water and I surmised that the rubber seal was warn out and no longer doing it's job to keep the water out and I replaced my pump.
- I am not a mechanical engineer, but I guess if you wanted to try and refurbish the pump, you would have to fully clean and dry it, add new grease to the core, and apply some silicone sealant to the rubber stopper to try and re-seal the stopper when you put it back into the pump.
- Then let the sealant fully dry before re-installing the pump into the washer and testing it.

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To reassemble your device, follow these instructions in reverse order.