

SAMSUNG

Repair Guide



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Safety Instructions

Information about the product such as its function, specifications and appearance, price, components, and performance, can be changed without notice. Samsung Electronics can change this document or product without prior guidance.

Safety Instructions for Repair

Samsung is not liable for any damage to the product, any injury or any other product safety issue caused by any attempt to repair the product which does not carefully follow these repair and maintenance instructions. Warranty services do not apply to damage or defects caused by repairs or self-repairs by uncertified service providers or non-professionals. If the product is damaged or safety problems occur due to repair without the following, Samsung Electronics will not be responsible.

- Make sure to disconnect the power plug.
- Repair the product in a safe place.
- Do not repair the washing machine without protective gear such as safety gloves. Samsung Electronics is not responsible for damage caused by not wearing protective equipment. Refer to disassembly and assembly page for equipment needed to assemble or disassemble the product.
- Most electronic components are sensitive to electromagnetic force, so be sure to use demagnetized tools to repair small electronics.
- Be sure to use a high-quality cross-driver to repair the product. If you use a low-quality cross-driver, the screws can wear out easily.
- Be sure to use genuine parts. Compatible parts may not work properly and may cause fire or injury.
- Completely remove any dust or foreign material from the housing, wiring and connection parts.
- The performance of the product cannot be guaranteed if it is repaired by users or non-experts.
- When connecting wires, make sure to connect them using the relevant connectors and check that they are properly connected.
- At least two people should work when working with heavy products.

- If you need to place the washing machine on its back for servicing purposes, place a support(s) on the floor and lay it down carefully so its side is on the floor.
- Do not lay it down on its front.
- Visit Samsung Electronics service center to find the cause of the failure or get a more detailed diagnosis.

Symbol Description



WARNING

Warning: Hazards or unsafe practices that may result in severe personal injury or death.





CAUTION

Caution: Hazards or unsafe practices that may result in minor personal injury or property damage.

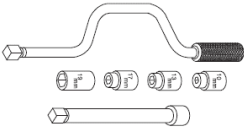
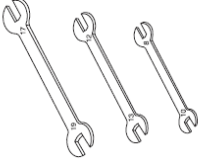



Disassembly and Reassembly

Be sure to wear protective equipment for your safety when repairing a product.

 **WARNING** Be sure to proceed with disassembly while fixing the product on a flat surface.

 **CAUTION** This is a standard disassembly diagram and may differ from the actual product.

Tools Disassembly and Reassembly

Tool	Type	Remarks
	Box driver 10mm 13mm 19mm	Heater(1), Tub(12), Fixer screw(5), Motor(2), Balancer(9) Shock absorber (2holes each in left/right), Damper(2), Damper(Friction 2) Pulley(1)
	Double-ended spanner 10mm 13mm 19mm	Replaced by box driver Leg
	Vice pliers	A Tool for protecting empty turning of bolt or abrasion from using box driver For disassembly of spin drum
	Others (Screwdriver, Nipper, Long nose pliers)	Common tools for servicing
	Torque wrench	The Tool for assembly of heater and tub

Standard Disassembly and Reassembly Drawings

Number	Part Name
1	Assy Diaphragm
2	Door Lock
3	Assy Pump Drain
4	Heater Wash
5	Heater Dry
6	Assy PBA

2.2.1 Assy Diaphragm

Disassembly

1. Remove 2 screws holding the Cover Top at the back of the unit using (+) screw driver.

1-1. Remove the Cover Top by lifting it up after pulling it back about 15mm.



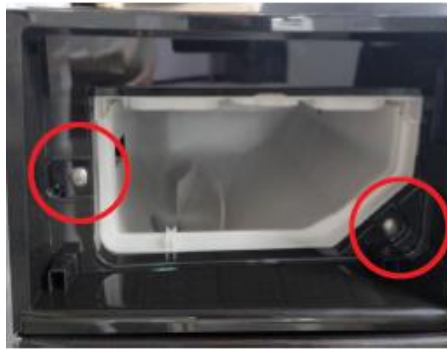
2. Open the Drawer by hand.



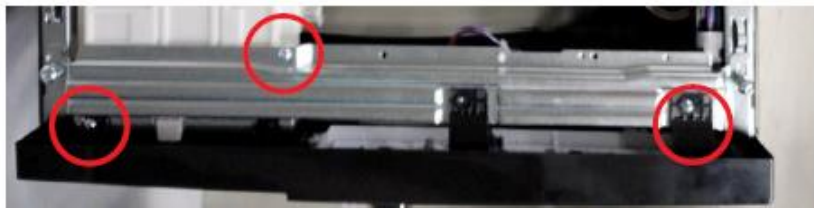
2-1. While holding down the release lever inside the drawer (Red box), slide open the drawer.




3. Remove the screws holding the Drawer and Panel using (+) screw driver.



3-1. Remove the screws at the top of the Assy Panel Control using (+) screw driver. (3ea)

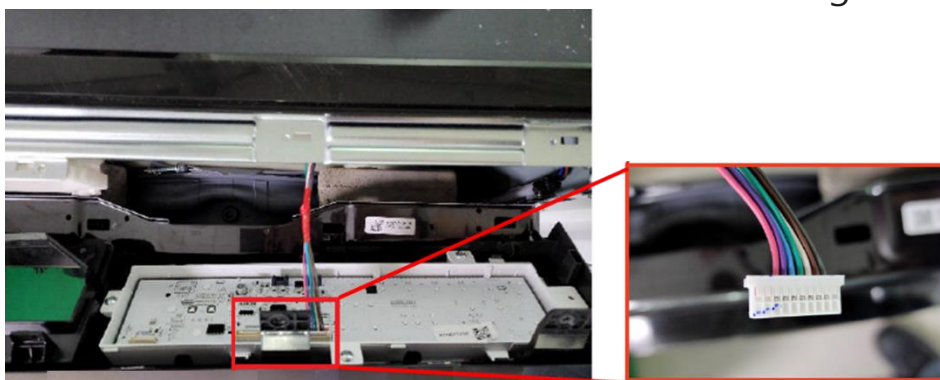


3-2. Grab the Panel and slightly push the Housing Drawer to remove the hook and pull the Panel upwards to disassemble with body.

 Be careful not to break the hook.



3-3. Hold the Assy Panel Control while unlocking the hooks and disassemble the terminal to remove it. Press the hook while removing the terminal.



4. Using long nose pliers, pick up one of the rings on Wire-Diaphragm which connect the spring and the wire ends. Then separate the Wire-Diaphragm from the Frame Front and disconnect the Diaphragm.



5. Remove 2 screws holding the Door Lock Switch with (+) screw driver.



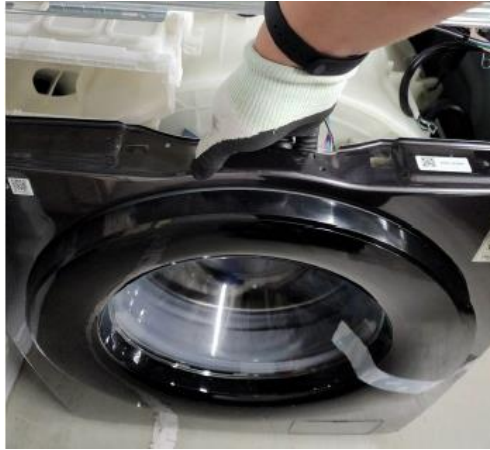
- 5-1. Remove 2 screws holding the Frame Front with (+) screw driver.




- 5-2. Remove 3 screws holding the bottom of the Frame Front with (+) screw driver.



5-3. Lift Frame Front up to disassemble.



6. Remove 6 bolts each holding Weight Balancer using box driver (13mm).

 CAUTION Weight Balancer are heavy, be aware of any injuries.



7. Remove Wire Diaphragm by using (+) screw driver.


7-1. Remove Diaphragm.



Reassembly

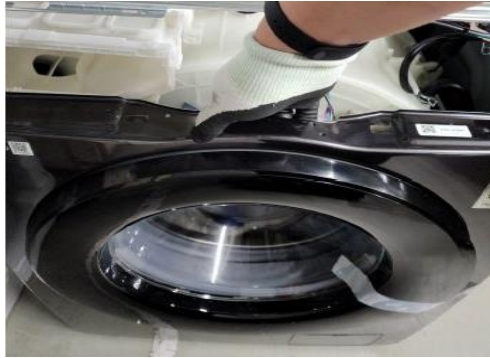
1. Assemble Wire Diaphragm and Diaphragm by using (+) screw driver. When assembling, be aware of direction with triangles drawn in Tub and the Diaphragm.



2. Assemble 6 bolts each holding Weight Balancers using box driver (13mm).
 Weight Balancer are heavy, be aware of any injuries.



3. Put Frame Front down to assemble.



3-1. Connect the Hose of red circled place from the guide cover filter.



4. Fasten 3 screws holding the bottom of the Frame Front with (+) screw driver.



4-1. Fasten 2 screws holding the Frame Front with (+) screw driver.



4-2. Take a right position and fasten 2 screws holding the Door Lock Switch with (+) screw driver.



5. Assemble the wire diaphragm and Frame Front. If the wire diaphragm is loose after assembly or is not correctly assembled at the correct position (5 o'clock or 7 o'clock), water leakage may occur.



- 5-1. Insert the diaphragm into the ribs of the frame front.



- 5-2. Insert the diaphragm assembly ring in the 10 ~ 11 o'clock direction of the groove surrounding the diaphragm & frame front joint.

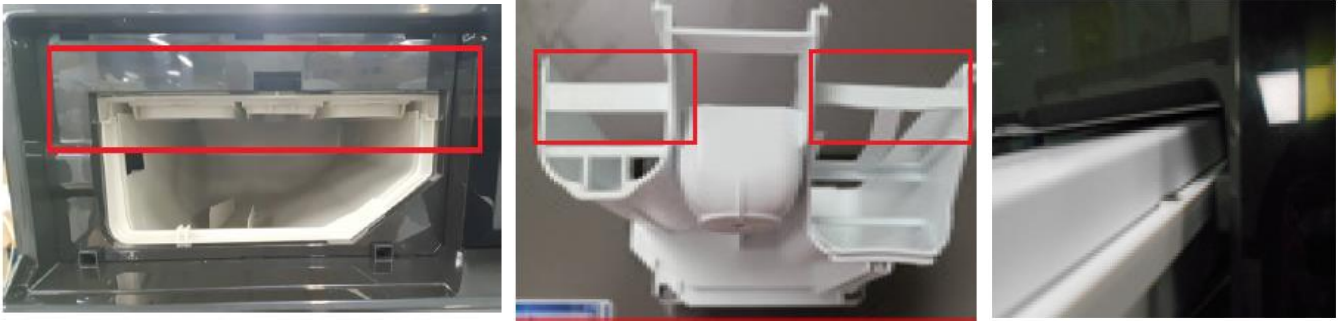
At this time, make sure the spring faces in the 7 o'clock direction.



- 5-3. After fixing the 7 o'clock part so that it doesn't fall out, pull the spring of the ring so that it stretches slightly, and insert the ring into the junction between the diaphragm and the frame front.



6. Make sure to fit the rail when reassembling the Assy Drawer.



6-1. Put the Drawer in the right direction.



7. input the Cover Top by push it front
Assemble 2 screws holding the Cover Top at the back of the unit using (+) screw driver.



2.2.2 Door Lock

Disassembly

1. Remove 2 screws holding the Cover Top at the back of the unit using (+) screw driver.

1-1. Remove the Cover Top by lifting it up after pulling it back about 15mm.



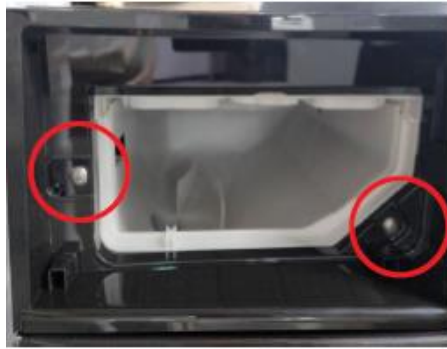
2. Open the Drawer by hand.



2-1. While holding down the release lever inside the drawer (Red box), slide open the drawer.




3. Remove the screws holding the Drawer and Panel using (+) screw driver.



3-1. Remove the screws at the top of the Assy Panel Control using (+) screw driver. (3ea)

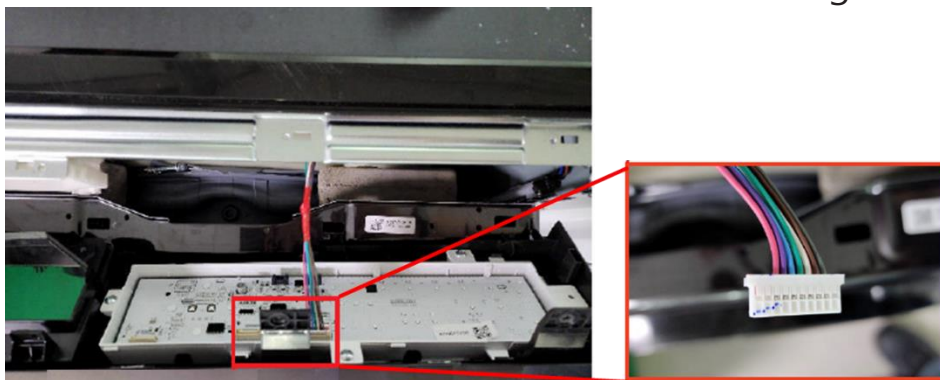


3-2. Grab the Panel and slightly push the Housing Drawer to remove the hook and pull the Panel upwards to disassemble with body.

 CAUTION Be careful not to break the hook.



3-3. Hold the Assy Panel Control while unlocking the hooks and disassemble the terminal to remove it. Press the hook while removing the terminal.



- Using long nose pliers, pick up one of the rings on Wire-Diaphragm which connect the spring and the wire ends. Then separate the Wire-Diaphragm from the Frame Front and disconnect the Diaphragm.



- Remove 2 screws holding the Door Lock Switch with (+) screw driver.



- Remove 2 screws holding the Frame Front with (+) screw driver.



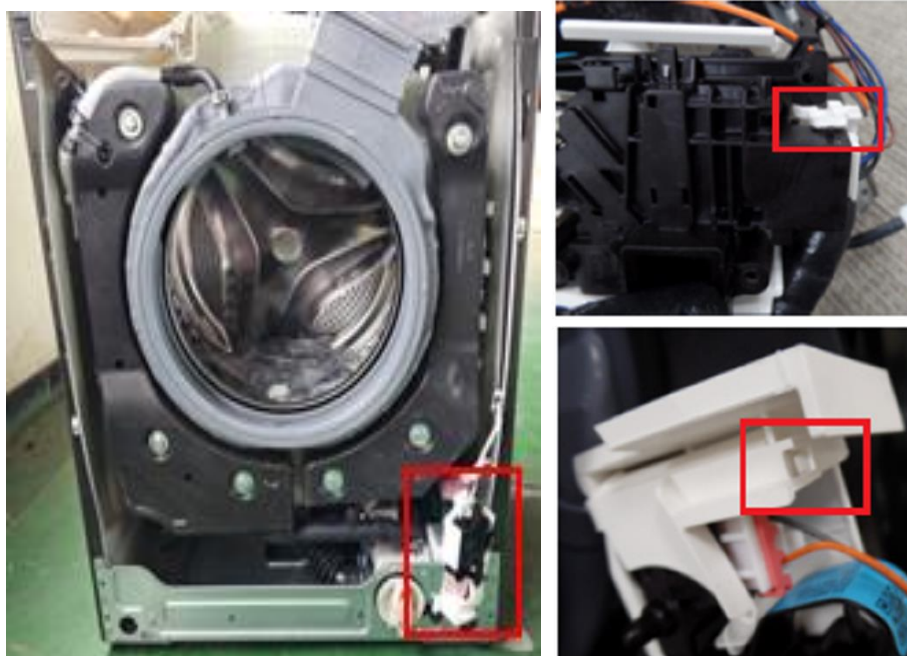
- Remove 3 screws holding the bottom of the Frame Front with (+) screw driver.



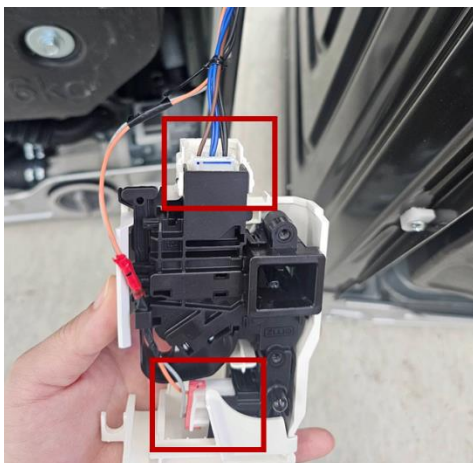
5-3. Lift Frame Front up to disassemble.



6. Remove Cover Door Switch (blue box) by gently pushing the red box part with (-) screw driver.

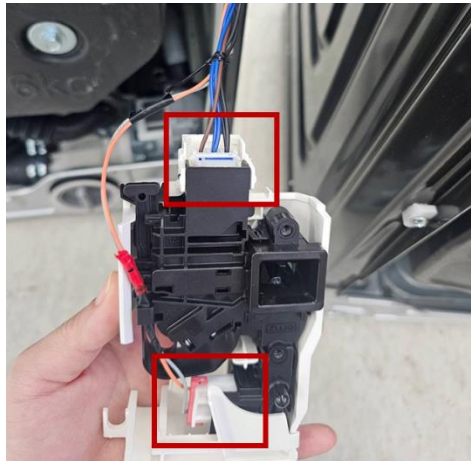


6-1. Disassemble the terminals 2ea.

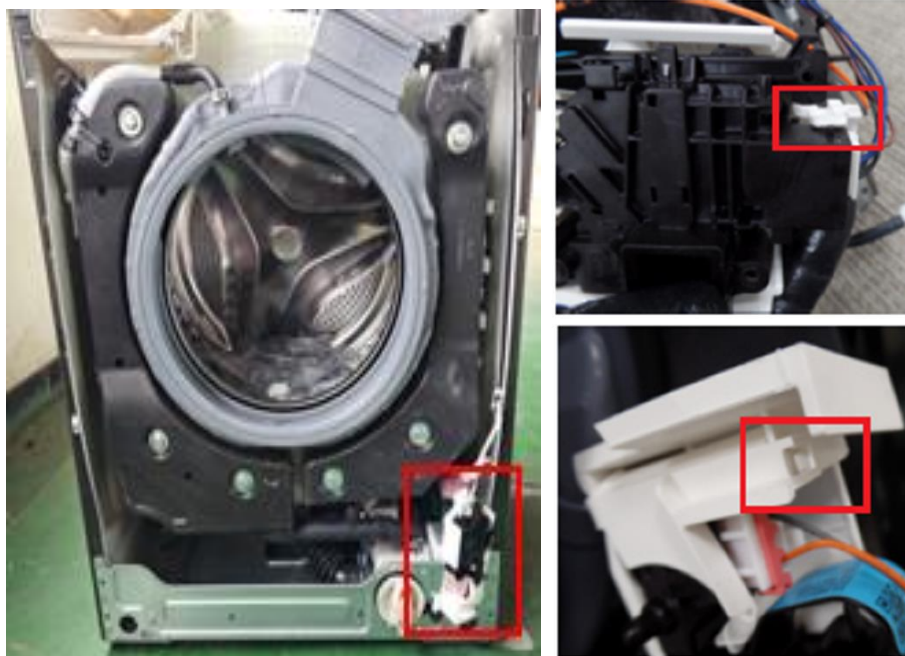


Reassembly

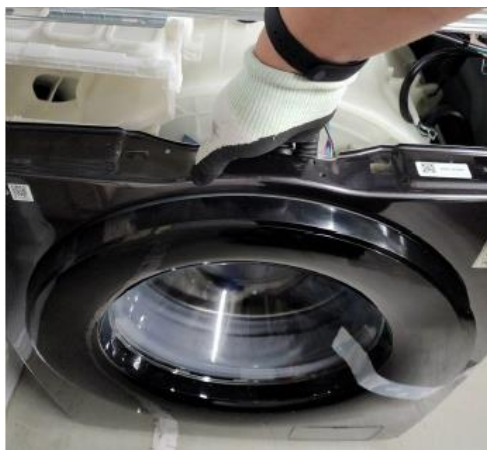
1. Assemble the terminals. (2ea)



- 1-1. Assemble the Cover Door Switch by gently pushing the red box part with hand.



2. Put Frame Front down to assemble.



2-1. Connect the Hose of red circled place from the guide cover filter.



3. Fasten 3 screws holding the bottom of the Frame Front with (+) screw driver.



3-1. Fasten 2 screws holding the Frame Front with (+) screw driver.



3-2. Take a right position and fasten 2 screws holding the Door Lock Switch with (+) screw driver.



4. Assemble the wire diaphragm and Frame Front. If the wire diaphragm is loose after assembly or is not correctly assembled at the correct position (5 o'clock or 7 o'clock), water leakage may occur.



- 4-1. Insert the diaphragm into the ribs of the frame front.



- 4-3. Insert the diaphragm assembly ring in the 10 ~ 11 o'clock direction of the groove surrounding the diaphragm & frame front joint.

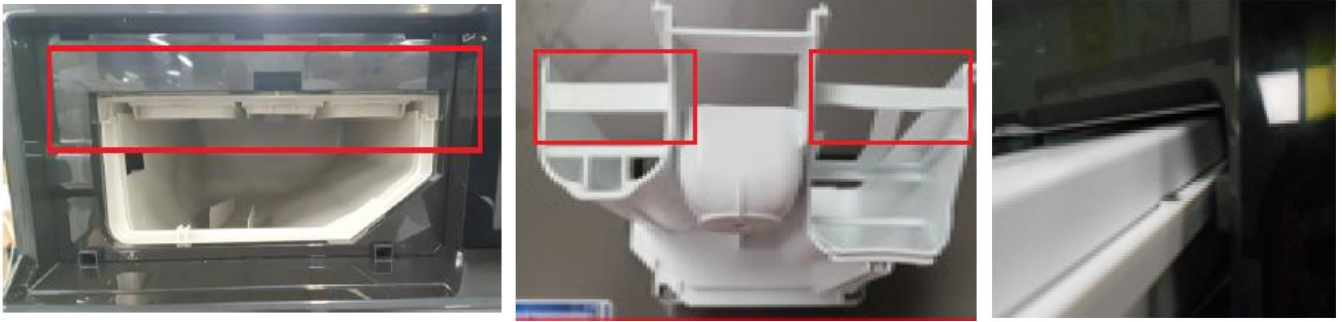
At this time, make sure the spring faces in the 7 o'clock direction.



- 4-4. After fixing the 7 o'clock part so that it doesn't fall out, pull the spring of the ring so that it stretches slightly, and insert the ring into the junction between the diaphragm and the frame front.



5. Make sure to fit the rail when reassembling the Assy Drawer.



5-1. Put the Drawer in the right direction.



6. input the Cover Top by push it front
Assemble 2 screws holding the Cover Top at the back of the unit using (+) screw driver.



2.2.3 Assy Pump Drain

Disassembly

1. Remove 2 screws holding the Cover Top at the back of the unit using (+) screw driver.

1-1. Remove the Cover Top by lifting it up after pulling it back about 15mm.



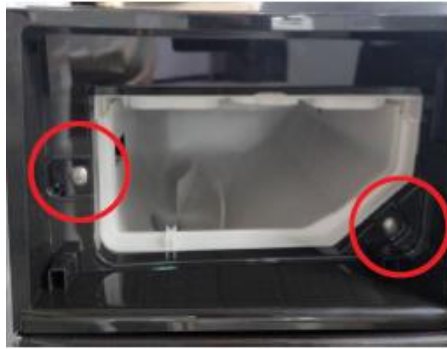
2. Open the Drawer by hand.



2-1. While holding down the release lever inside the drawer (Red box), slide open the drawer.




3. Remove the screws holding the Drawer and Panel using (+) screw driver.



3-1. Remove the screws at the top of the Assy Panel Control using (+) screw driver. (3ea)

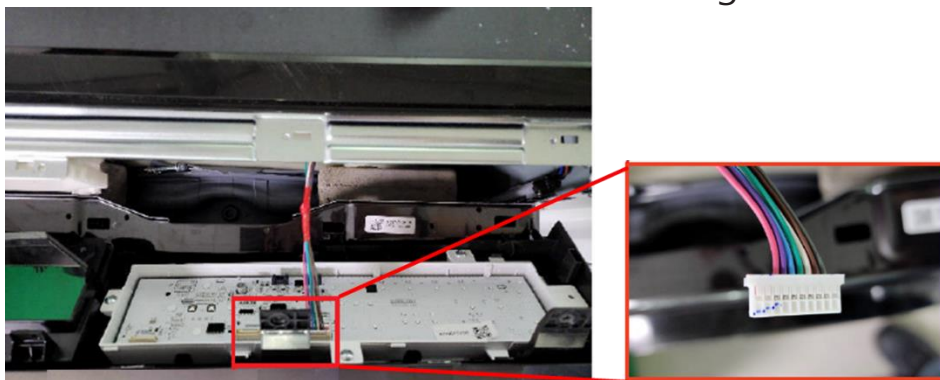


3-2. Grab the Panel and slightly push the Housing Drawer to remove the hook and pull the Panel upwards to disassemble with body.

 CAUTION Be careful not to break the hook.



3-3. Hold the Assy Panel Control while unlocking the hooks and disassemble the terminal to remove it. Press the hook while removing the terminal.



4. Using long nose pliers, pick up one of the rings on Wire-Diaphragm which connect the spring and the wire ends. Then separate the Wire-Diaphragm from the Frame Front and disconnect the Diaphragm.



5. Remove 2 screws holding the Door Lock Switch with (+) screw driver.



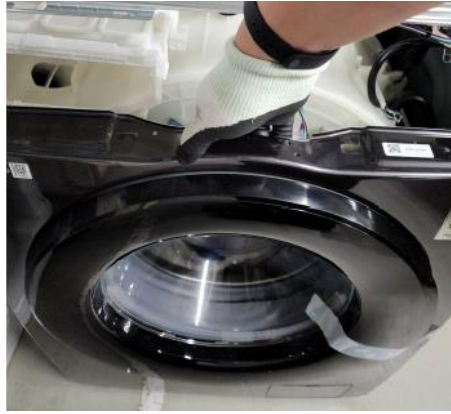
- 5-1. Remove 2 screws holding the Frame Front with (+) screw driver.



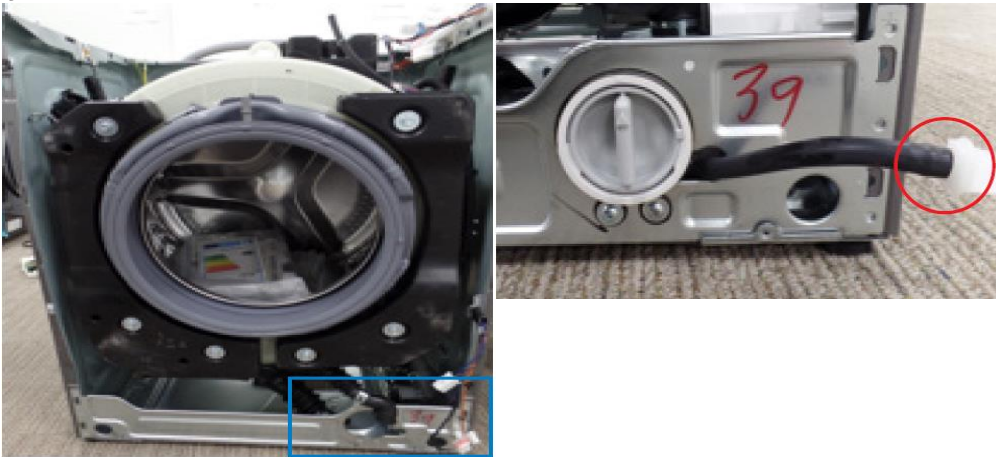
- 5-2. Remove 3 screws holding the bottom of the Frame Front with (+) screw driver.



5-3. Lift Frame Front up to disassemble.



6. The Pump is located in the blue box. Remove the remaining water through the drainage hose. Place a bowl under the drainage hose to catch any water that may flow out.



7. Remove 2 screws holding the drain pump using (+) screw driver.



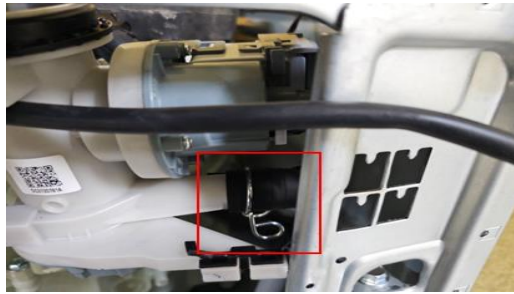
8. Separate the Hose & Clamper of red box, from the assy pump drain.



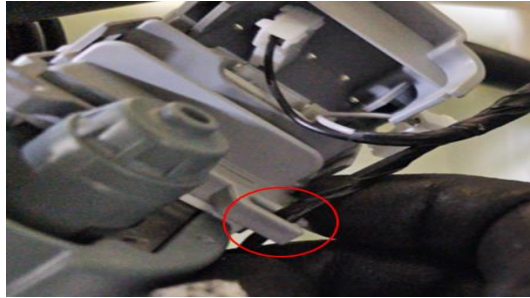
9. Remove 8 screws holding the cover bottom and frame plate bottom with (+) screw driver.



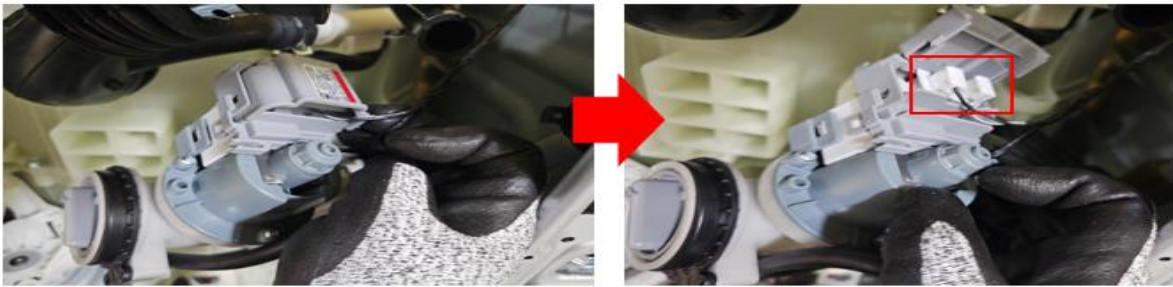
10. Separate the Hose & Clamper of red box, from the assy pump drain
Slightly take the pump out from the frame.



10-1. Separate the Wire of red circled place, from the bubble pump.



10-2. Open the case, Separate the 2 Wire of red box, from the bubble pump.



10-3. Separate the Wire of red circled place, from the drain pump.



10-4. Open the case, Separate the 2 Wire of red box, from the drain pump.



Reassembly

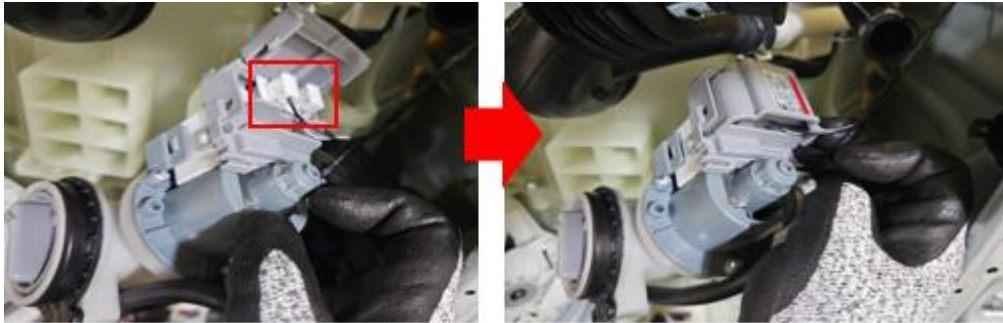
1. Connect the 2 Wire of red box, from the drain pump.



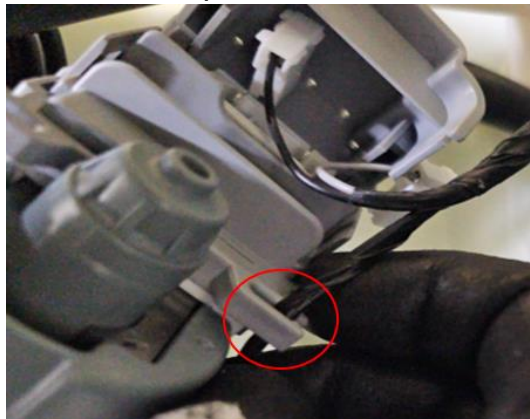
1-1. Close the case, Connect the Wire of red circled place, from the drain pump.



1-2. Connect the 2 Wire of red box, from the bubble pump, Close the case.



1-3. Connect the Wire of red circled place, from the bubble pump.



2. Connect the Hose & Clamper of red box, from the assy pump drain



3. Assemble 8 screws holding the cover bottom and frame plate bottom with (+) screw driver.



4. Assemble the pump in the right position as shown in the picture, pull the drainage hose towards you



4-1. Connect the Hose & Clamper of red box, from the assy pump drain.



5. Assemble 2 screws holding the drain pump using (+) screw driver.



5-1. Assemble the drainage hose.



6. Put Frame Front down to assemble.



6-1. Connect the Hose of red circled place from the guide cover filter.



7. Fasten 3 screws holding the bottom of the Frame Front with (+) screw driver.



7-1. Fasten 2 screws holding the Frame Front with (+) screw driver.



7-2. Take a right position and fasten 2 screws holding the Door Lock Switch with (+) screw driver.



8. Assemble the wire diaphragm and Frame Front. If the wire diaphragm is loose after assembly or is not correctly assembled at the correct position (5 o'clock or 7 o'clock), water leakage may occur.



8-1. Insert the diaphragm into the ribs of the frame front.



8-2. Insert the diaphragm assembly ring in the 10 ~ 11 o'clock direction of the groove surrounding the diaphragm & frame front joint.

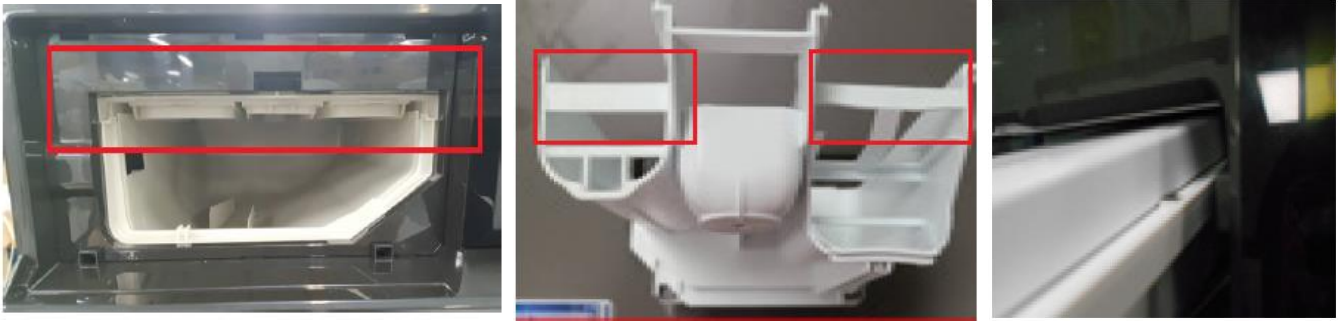
At this time, make sure the spring faces in the 7 o'clock direction.



8-3. After fixing the 7 o'clock part so that it doesn't fall out, pull the spring of the ring so that it stretches slightly, and insert the ring into the junction between the diaphragm and the frame front.



9. Make sure to fit the rail when reassembling the Assy Drawer.



9-1. Put the Drawer in the right direction.



10. input the Cover Top by push it front
Assemble 2 screws holding the Cover Top at the back of the unit using (+) screw driver.



2.2.4 Heater Wash

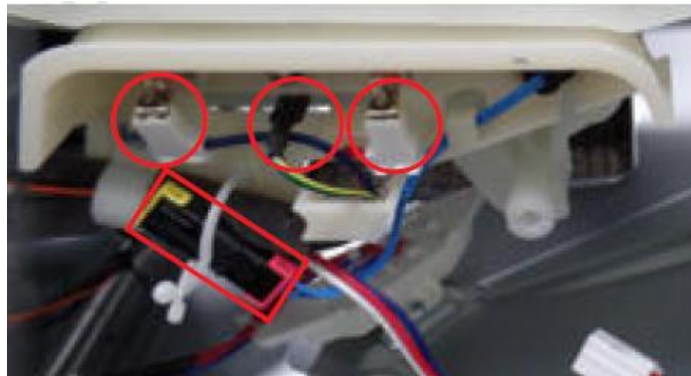
Disassembly

1. Remove 6 screws with (+) screw driver. Separate the Cover Back. The Heater is located in the blue box.



2. Disconnect the Connection housing (4ea) and Holder.

 Make sure the Wire harness are not getting stuck in other parts.



3. Disassemble the Heater and the nut holding the Heater using 10mm box driver.



Reassembly

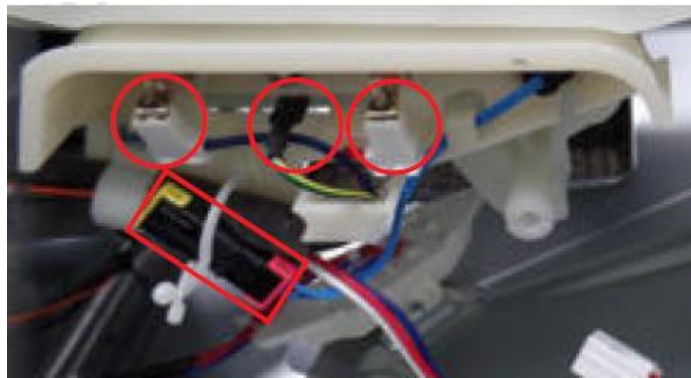
1. Assemble the Heater and the nut holding the heater using the 10mm box driver.



2. Connect the Connection housing (4ea) and Holder.



Make sure the Wire harness are not getting stuck in other parts.



3. Insert the Cover Back and fasten the screws in 6 places using (+) screw driver.



2.2.5 Heater Dryer

Disassembly

1. Remove 2 screws holding the Cover Top at the back of the unit using (+) screw driver.

1-1. Remove the Cover Top by lifting it up after pulling it back about 15mm.



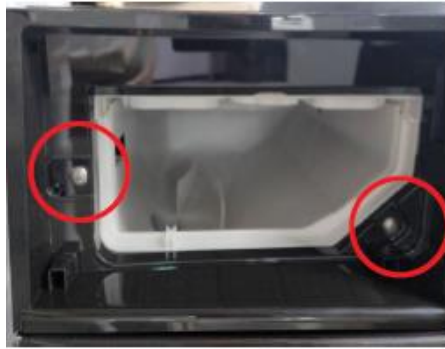
2. Open the Drawer by hand.



2-1. While holding down the release lever inside the drawer (Red box), slide open the drawer.




3. Remove the screws holding the Drawer and Panel using (+) screw driver.



3-1. Remove the screws at the top of the Assy Panel Control using (+) screw driver. (3ea)

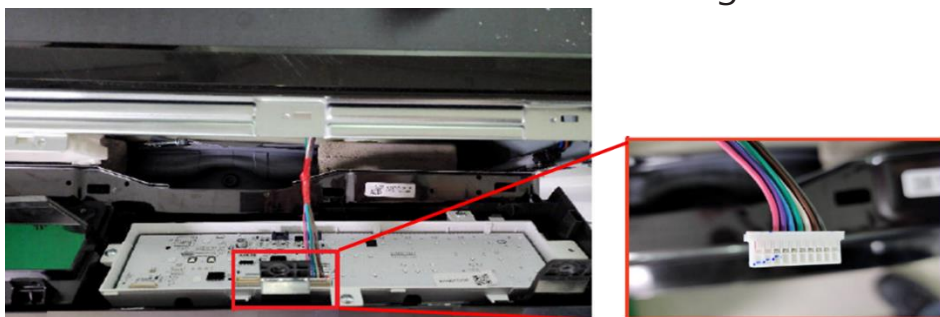


3-2. Grab the Panel and slightly push the Housing Drawer to remove the hook and pull the Panel upwards to disassemble with body.

 CAUTION Be careful not to break the hook.



3-3. Hold the Assy Panel Control while unlocking the hooks and disassemble the terminal to remove it. Press the hook while removing the terminal.



4. Loosen the 2 screw holding the Duct with (+) screw driver.

4-1. Pull the duct in the direction of the arrow and push it below.



5. Remove 4 screws holding the Frame of the Frame Plate-Up with (+) screw driver.

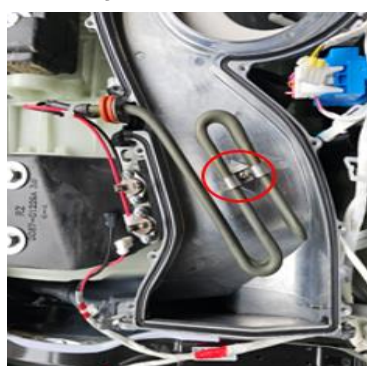


6. Remove 12 screws holding the Housing Fan-Up with (+) screw driver.



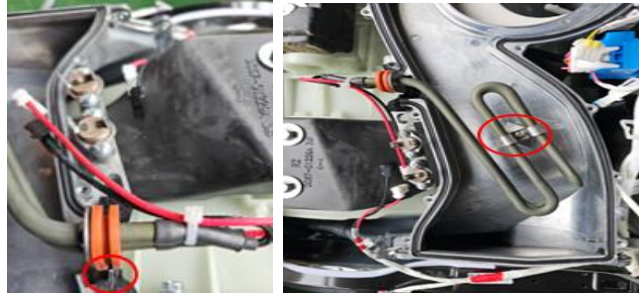
7. Remove 1 screws holding the Duct of the Heater Dry with (+) screw driver.

7-1. Remove Heater Dry



Reassembly

1. Insert Heater Dry and Duct into the groove and fasten 1 screw Heater Dry and Duct with (+) screw driver.



2. Fasten 12 screw holding the Housing Fan-Up with (+) screw driver



3. Fasten 4 screw holding the Frame Plate-Up with (+) screw driver

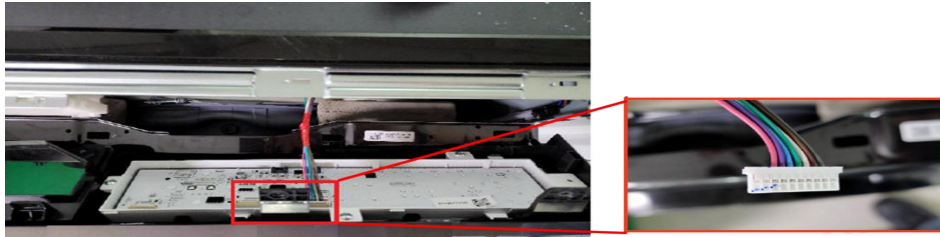


4. Pull the duct up and fix it by pushing it in the direction of the arrow when the screw fits into the groove.

- 4-1. Tighten 2 screw holding the Duct with (+) screw driver..



5. Connect the terminal by hand. Take a look at the hook and put it in the right place.



- 5-1. Assemble the hook of housing drawer and assemble 3 screws at the top of the ASSY-PANEL CONTROL with (+) screw driver.



Be careful not to break the hook.



6. Make sure to fit the rail when reassembling the Assy Drawer.



- 6-1. Put the Drawer in the right direction.



7. input the Cover Top by push it front
Assemble 2 screws holding the Cover Top at the back of the unit using (+) screw driver.



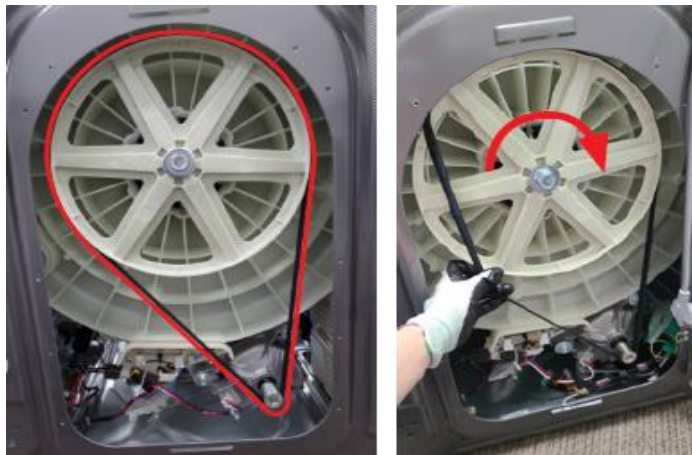
2.2.6 Assy PBA

Disassembly

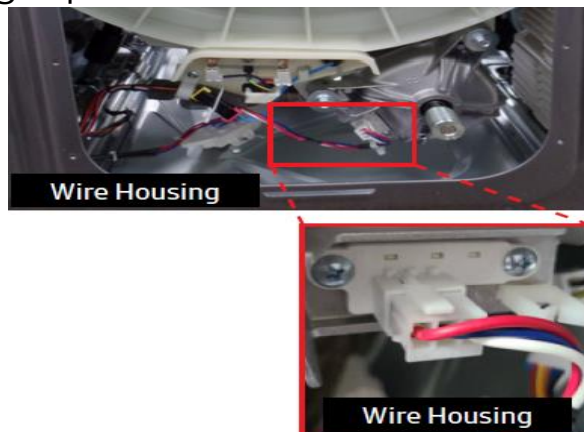
1. Remove 6 screws with (+) screw driver. Separate the Cover Back.



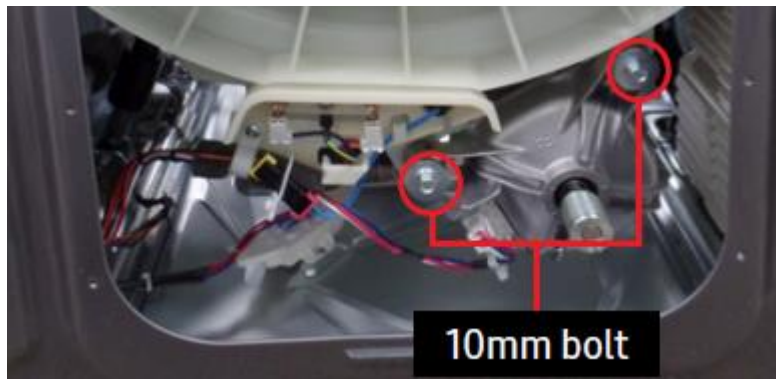
2. Separate the belt by pulling the belt towards your body and slowly rotate the pulley.



3. Separate the Wire Housing from the motor by hand. Take a look at the hook and put it in the right place



4. Remove the bolts (2ea) holding the motor at the back of the washing machine using Box driver (10mm), Separate the motor by pulling it towards you.



5. Remove guide wire by removing hooks using long nose plier and remove 2 screws holding the Assy kit using (+) screw driver on the right and pull it out from the set.



- 5-1. Separate Main PCB from the Frame.



Reassembly

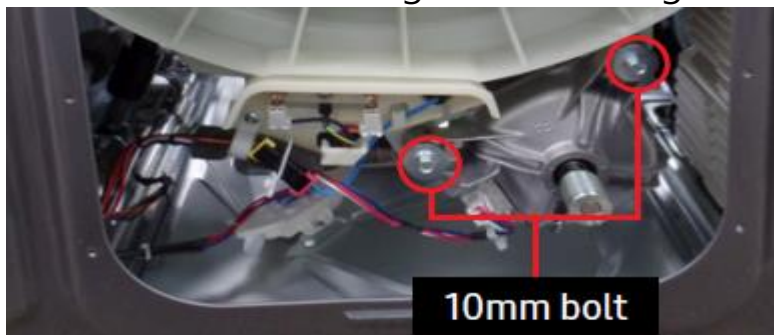
1. Connect Main PCB from the Frame, Assemble 2 screws holding the Assy kit using (+) screw driver on the right and pull it out from the set.



- 1-1. Remove guide wire by removing hooks using long nose plier



2. Connect the motor and tub back, Assemble the bolts (2ea) holding the motor at the back of the washing machine using Box driver (10mm).

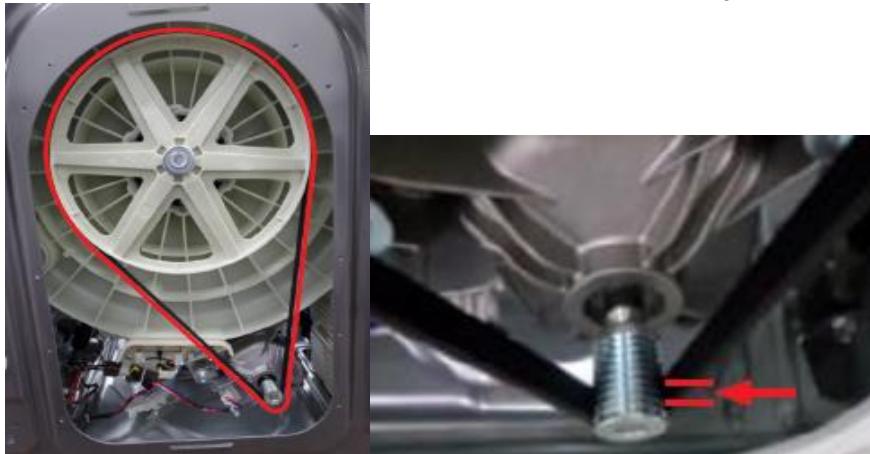


3. Connect the Wire Housing and motor. Connect the Wire of red boxed place from the guide wire



4. Separate the belt by pulling the belt towards your body and slowly rotate the pulley.

4-1. When installing the Belt around the Motor Pulley, the bottom of the belt must be located on the second tooth of the Motor Pulley.



5. Assemble 6 screws with (+) screw driver. Separate the Cover Back.



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