

REPAIR GUIDELINE

Hedge Trimmer_HTX7500



Issue Date: 15/01/2019

Updated Date: 23/08/2021(Blade)

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HTX7500 Hedge Trimmer

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Problem	Possible Cause	Fault Position	Test & Solution
Fail to start	Main PCB or its wires are broken	PCB Assembly	Replace the PCB assembly.
	The blade is jammed when an obstruction is stuck in the blade and deforming the blade.	Blade Set	Clear any obstructions or replace the blade Set
	Motor failure	Motor	Replace the motor and gear assembly
	Gears are jammed due to damaged teeth.	Gear Set	Replace the failure gears
	Malfunction of switch lever or lock-off button	Switch Levers/lock-off button	Replace the switch lever/lock-off button
Soft start failure	Main PCB is broken	PCB Assembly	Replace the PCB assembly

Problem	Possible Cause	Fault Position	Test & Solution
Excessive vibration	Worn eccentric block, gears or shaft	Eccentric Block, Gears, Shaft	Replace the worn parts
	Blades or blade support is bent	Blade Set/support	Replace the Blade/support
	Bent or damaged teeth	Blade Set	Replace the Blade
The speed and power is less compared with normal use	Motor is broken	Motor	Replace the motor and gear assembly.
The switch lever doesn't return to the original position	Dust stuck in the switch.	Switch Lever	Clear the dust

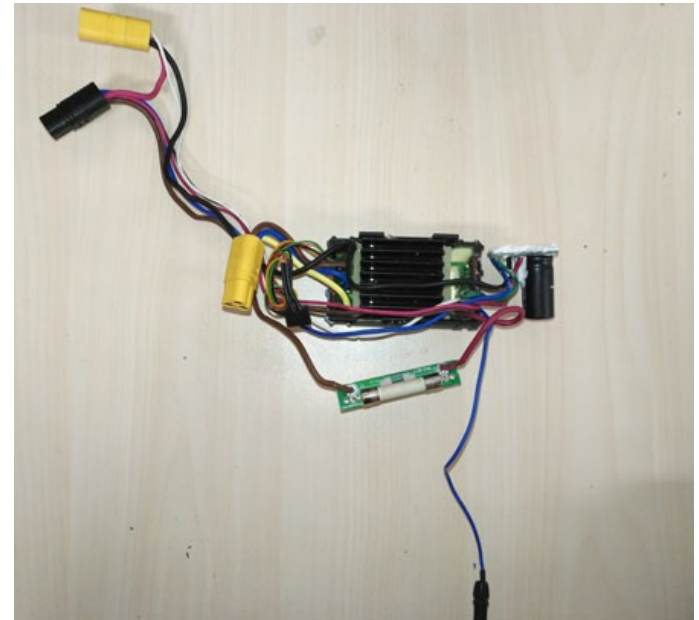
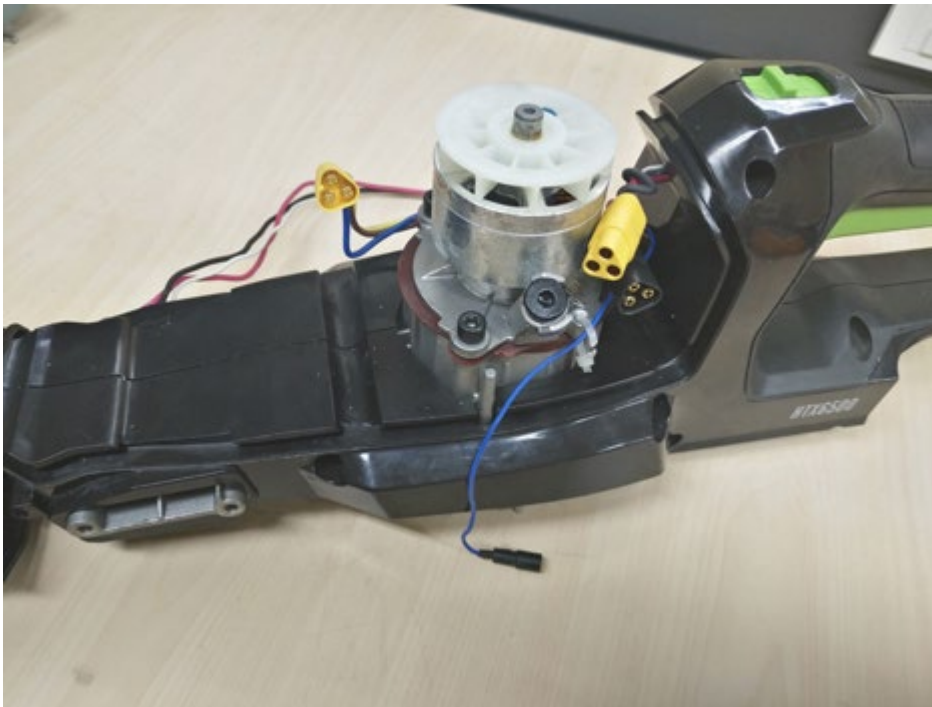
Tool List For Repair

HTX7500 Hedge Trimmer

NO.	Tool List	SPEC	Remark
1	Magnetic tool Bits		
2	Screwdriver		
3	Torque Wrench	Rated torque should exceed 5.5 Nm	To tighten the blade bolt
4	Hex wrench	5mm	
5	Electric Soldering Iron		To solder or separate the micro switch from the switch assembly
6	Solder Sucker		
7	Heat Shrinkable Sleeves		
8	Scissors		To remove the shrinkable sleeve
9	Hot Air Gun		To shrink the shrinkable sleeves
10	Oil and Grease		To lubricate the blade and gears
11	Inside Caliper		To remove the circlip

Part 1: Measure the PCBA, Motor and Internal Wire Assembly

1. Following the instructions for **“Replacing the PCBA and Motor Assembly”** to Separate the PCBA from the hedge trimmer.

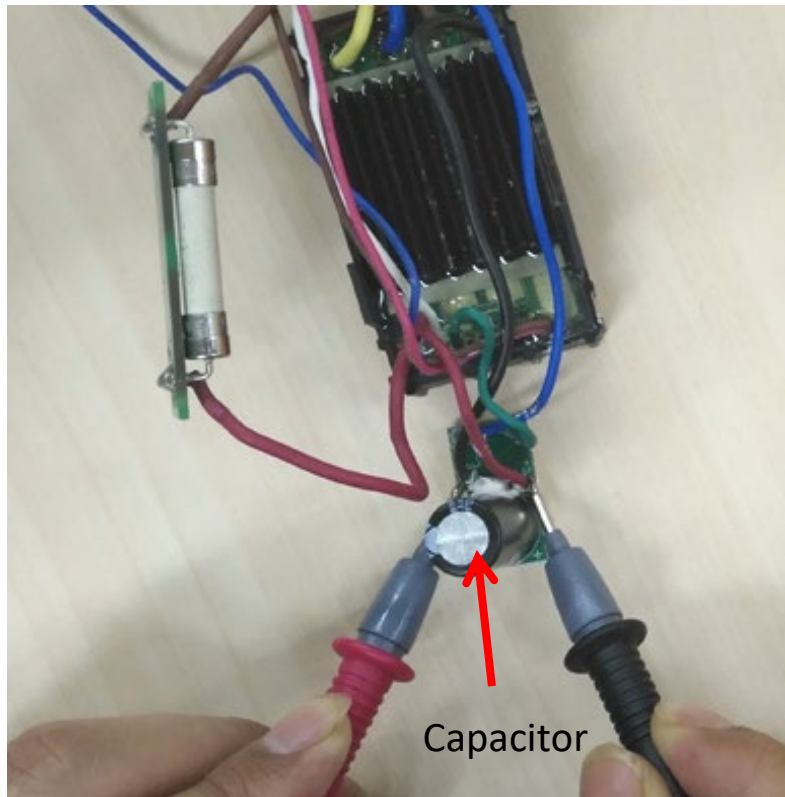


Measure the PCBA, Motor and Internal Wire Assembly

HTX7500 Hedge Trimmer

2. Find the capacitor in the PCBA and set the multimeter function to “Diode measuring”.
3. Contact the red pen pin to the negative electric contact (the joint that connects to black wire).
Contact the black pen pin to the positive electric contact (red wire).

Notice: When the voltage is below 1V and buzzing sound stops, the discharging has finished.



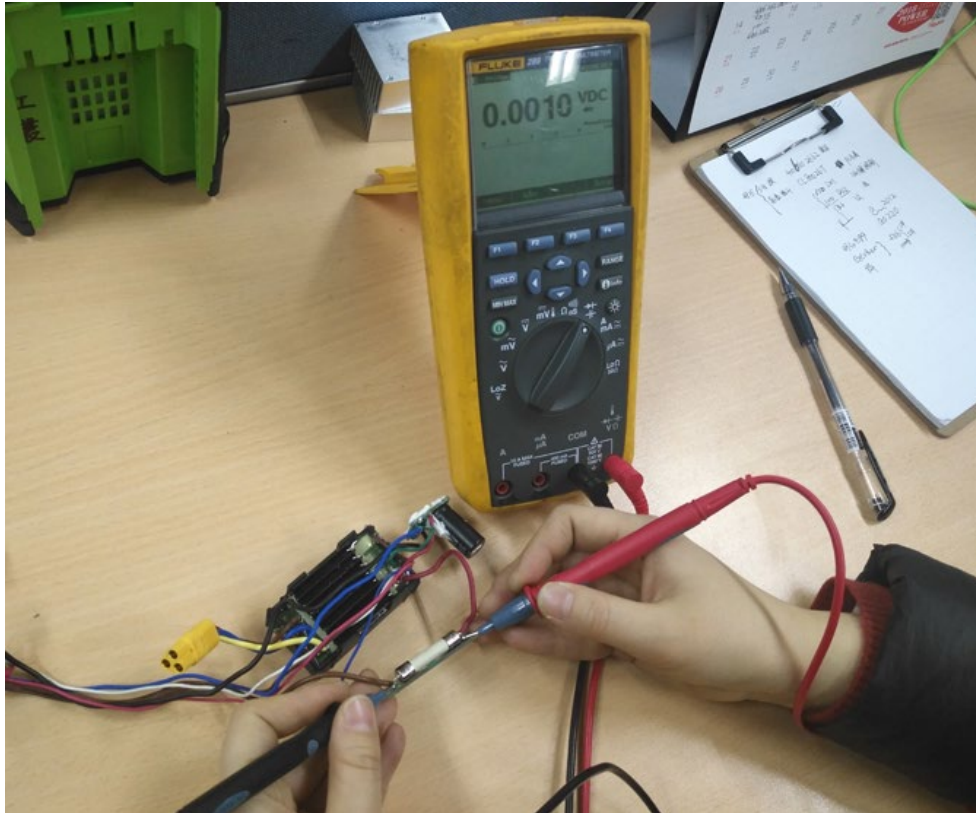
PCBA Measurement

Measure the PCBA, Motor and Internal Wire Assembly

HTX7500 Hedge Trimmer

4. Set the multimeter function to “Diode measuring”.
5. Connect the black pen pin and red pen pin to the both side of the fuse.

Notice: If the voltage is not exceed 0.05V, means a good fuse, go to the next testing step; otherwise means a broken fuse, replace a new PCBA.

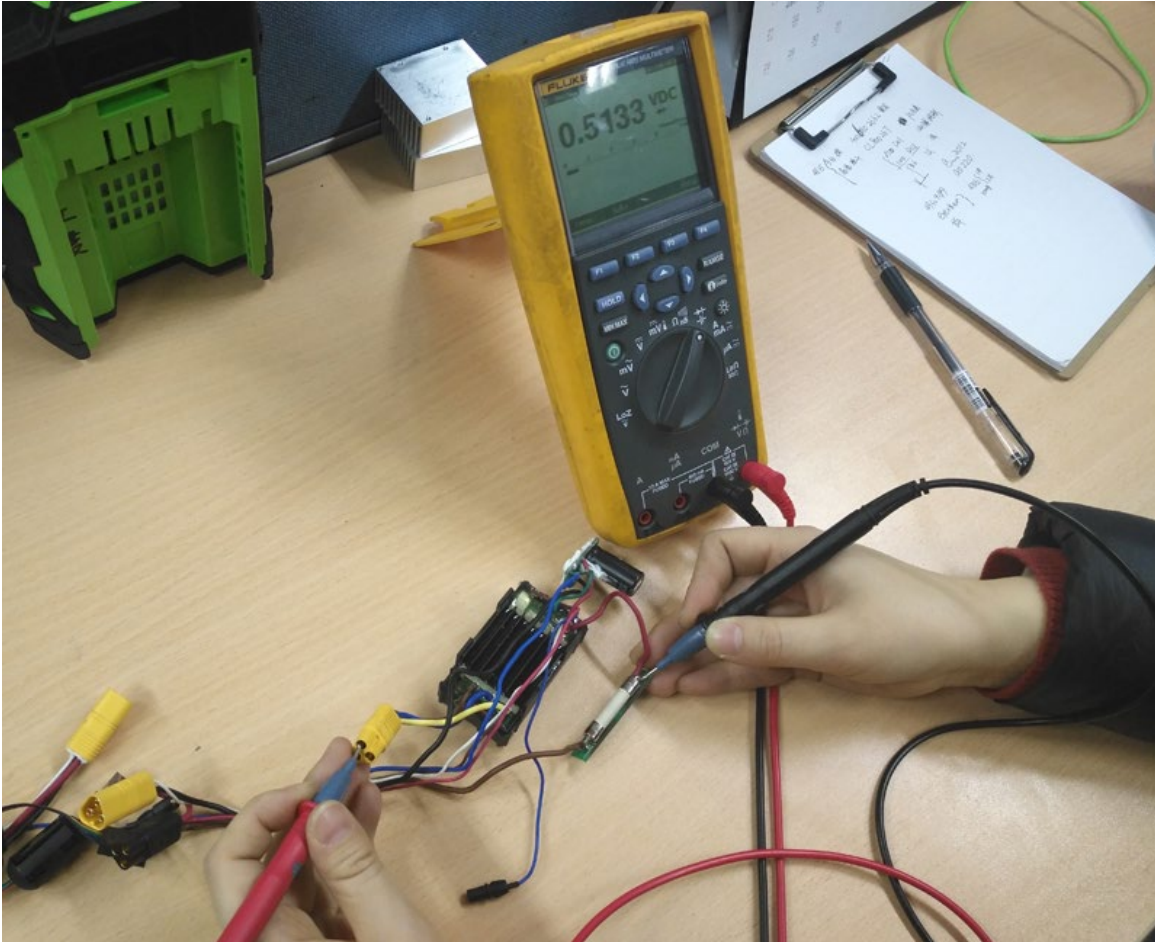


PCBA Measurement

Measure the PCBA, Motor and Internal Wire Assembly

HTX7500 Hedge Trimmer

- Contact the black pen pin to the one side of the fuse and red pen pin to the three contacts of the yellow connector (connect to the motor).



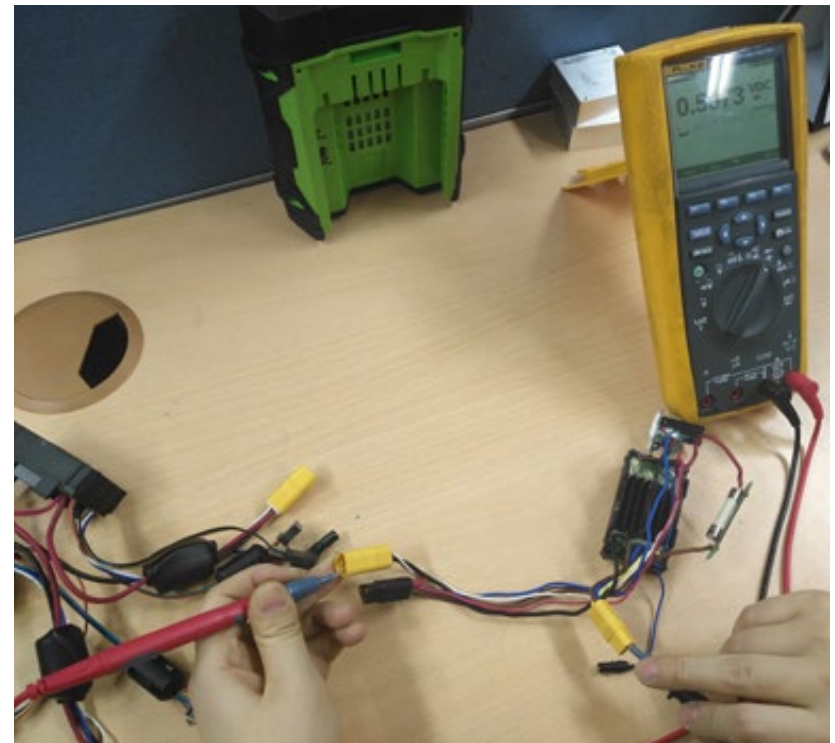
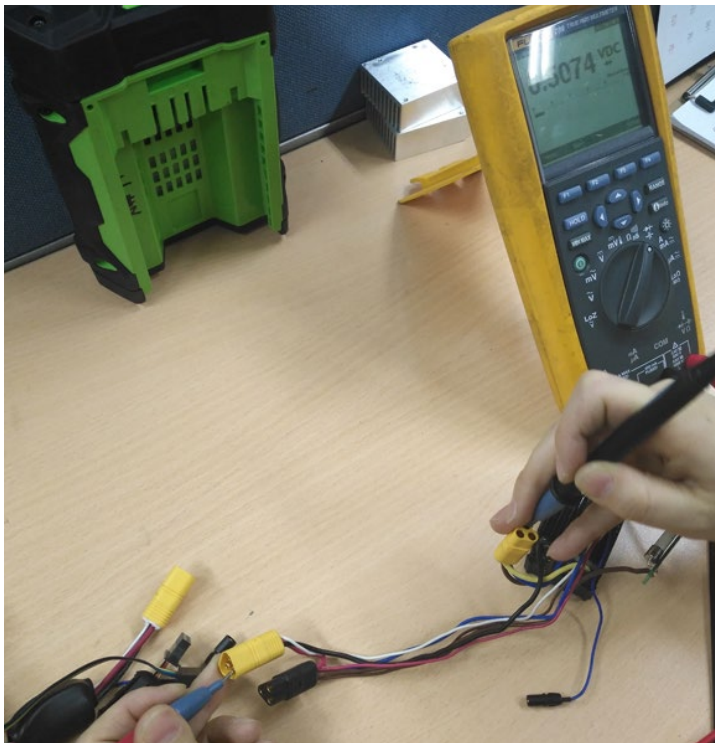
Notice : If the LCD displays 0.45~0.55V for each measurement, means a good upper MOSFET, go to the next testing step; otherwise means a broken PCBA, replace a new PCBA.

Measure the PCBA, Motor and Internal Wire Assembly

HTX7500 Hedge Trimmer

7. Contact the red pen pin to the contact with black wire of the yellow connector (connect to the internal wire assembly) and the black pen pin to the three contacts of the yellow connector (connect to the motor).

Notice: If the LCD displays 0.45~0.55V for each measurement, means a good PCBA; otherwise means a broken PCBA, replace a new PCBA.



PCBA Measurement

1. Following the instructions for “**Replacing the PCBA and Motor Assembly**” to Separate the PCBA from the hedge trimmer.

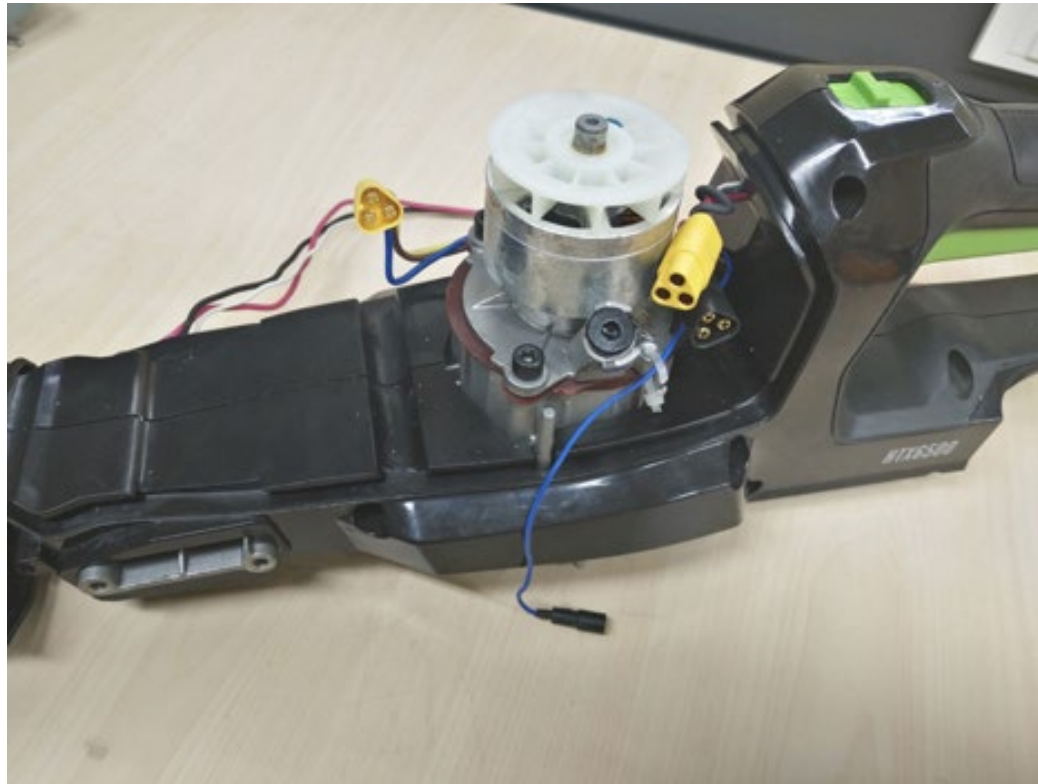


2. Set the multimeter function to “Resistance measuring”.
3. Measure the resistance between any of the two contacts.

Notice: If the resistance is not infinite, means a good motor. Otherwise, replace the damaged motor.



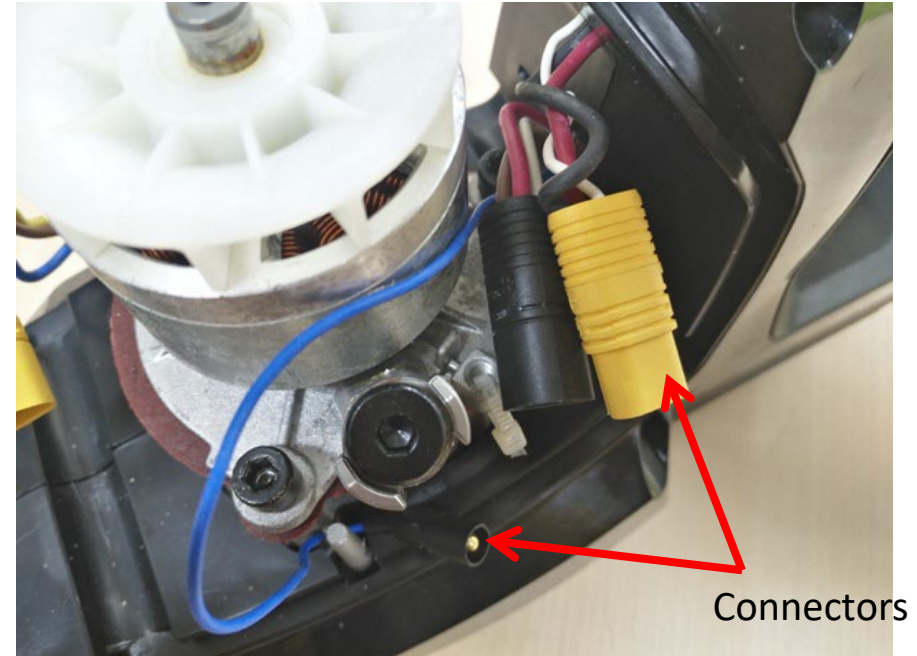
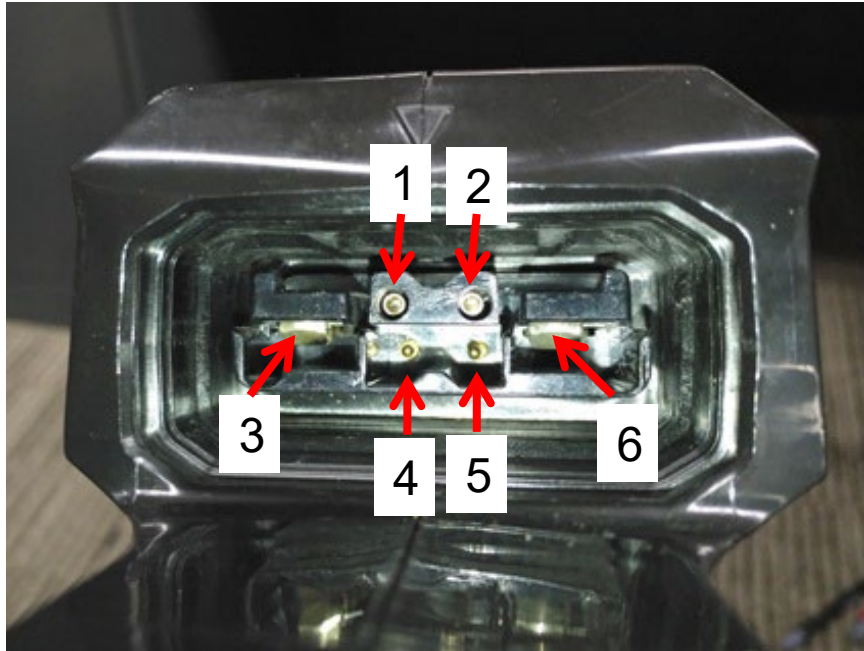
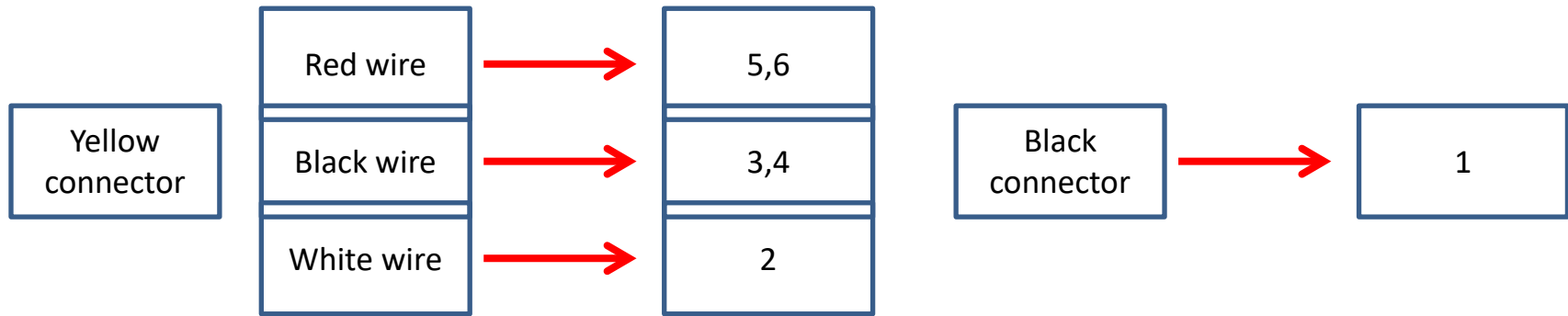
1. Following the instructions for “**Replacing the PCBA and Motor Assembly**” to Separate the PCBA from the hedge trimmer.



Measure the PCBA, Motor and Internal Wire Assembly

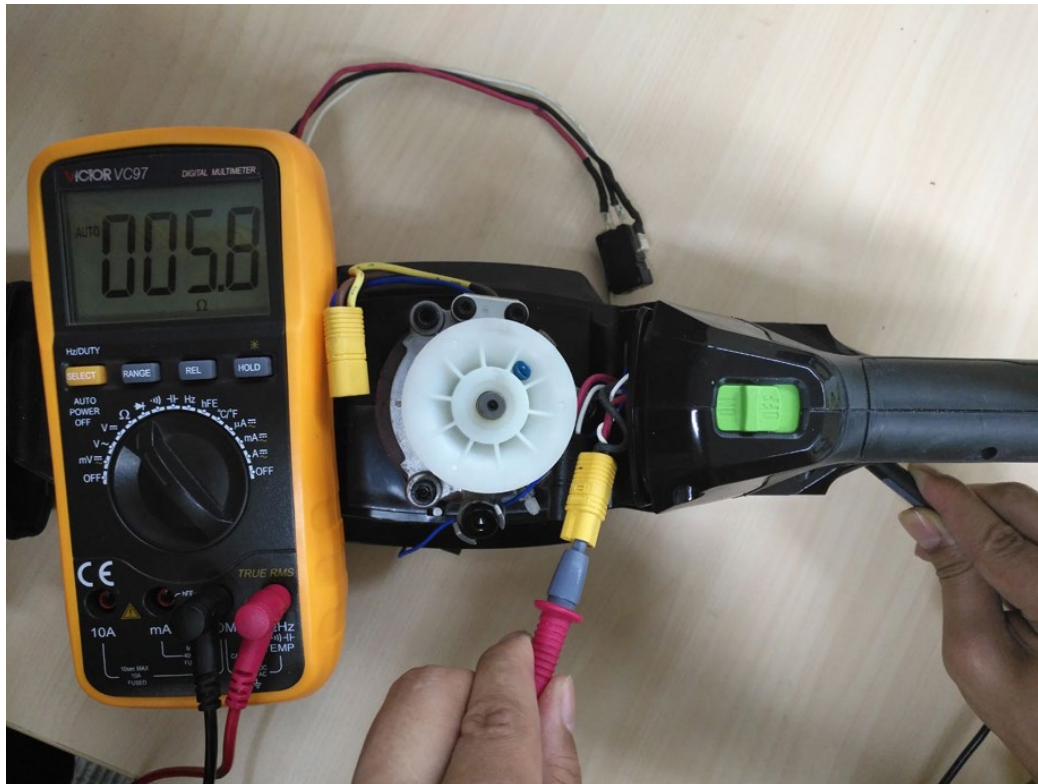
HTX7500 Hedge Trimmer

1. There is 6 contacts in the socket. Contact the black pen pin to the 6 contacts and the red pen pin to their corresponding contacts of the two connectors.



Internal Wire Assembly Measurement

2. If the resistance is infinite, the internal wire assembly is damaged and replace with a new one.



Internal Wire Assembly Measurement

Part 2: Replacing the Front Handle Set

Replacing the Front Handle Set

HTX7500 Hedge Trimmer

1. Loosen and remove the two Screws in the guard with a Screwdriver and remove the guard from the housing.
2. Replace the guard if it is broken.



Front Handle



Guard

Screw

Description	Part Number	Qty
Screw	5620479001	2
Guard	3129134001	1

Replacing the Front Handle Set

HTX7500 Hedge Trimmer

- Loosen and remove the 6 self tapping screws from the front handle.
- Loosen the 4 hexagon socket screws with their washers at both side of the front handle set and remove them. A 5mm hex wrench is necessary.



6pcs Self Tapping Screw



4 Hexagon Socket Screws



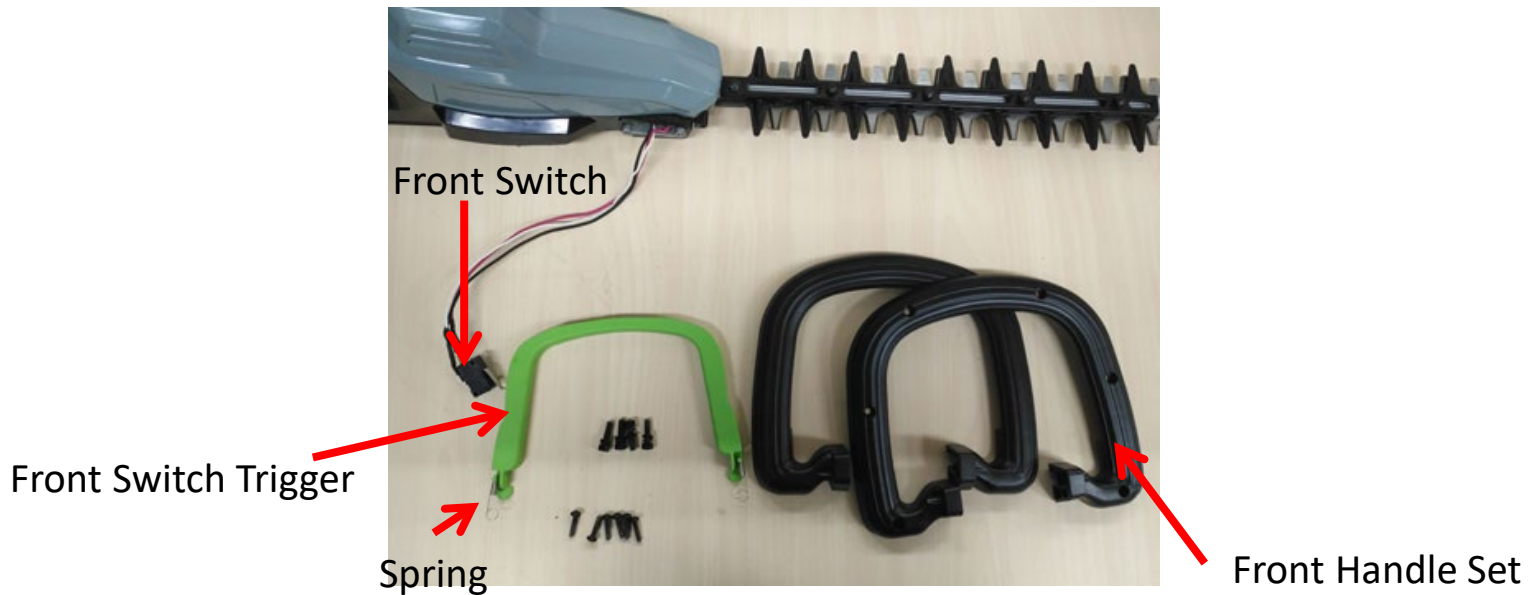
Front Half Handle

Description	Part Number	Qty
Self Tapping Screw	5620479001	6
Hexagon Socket Screw	5620446004	4
Washer	5650404001	4

Replacing the Front Handle Set

HTX7500 Hedge Trimmer

5. Separate the front half from the rear half of the handle.
6. Remove the internal wires and front switch from the rear half of the handle, separate the rear half handle from the front handle.



Description	Part Number
Front Handle Set	3900039001
Front Switch Trigger	3129176001
Spring	3660718001

Replacing the Front Handle Set

HTX7500 Hedge Trimmer

7. Replace the front handle set if broken.
8. To replace the front switch:
 - (a) Remove the heat-shrinkable sleeves with a scissor, then separate the wires from the trigger using an electric soldering iron.
 - (b) Replace with a new switch.
 - (c) Place new heat-shrinkable sleeves through the wires, then solder the wires to the switch following the figure below.
 - (d) Move the heat-shrinkable sleeves to cover the switch feet and use a hot air gun to shrink the sleeves.



Brown to NO

White to NC

Red to COM

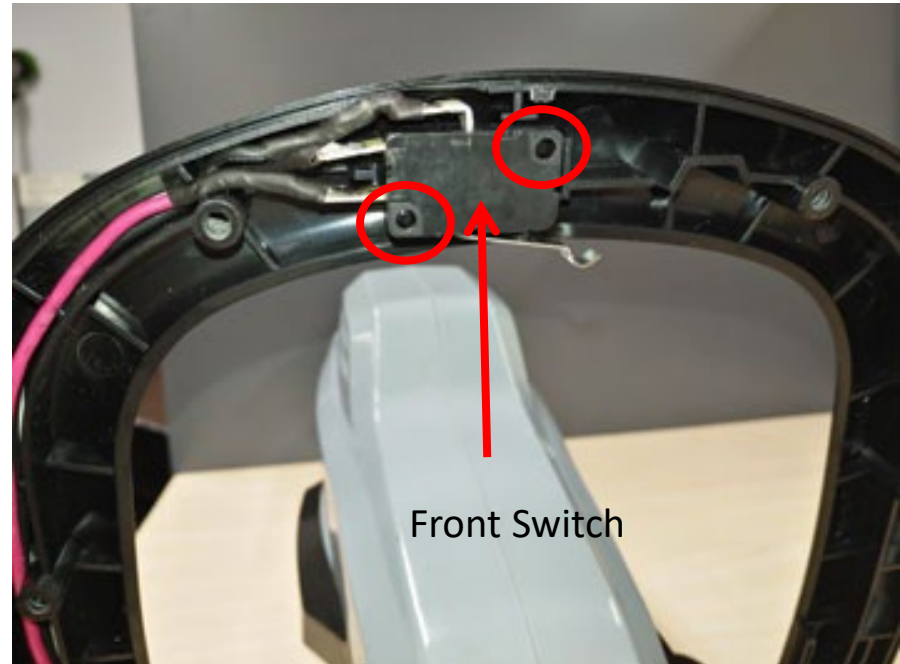
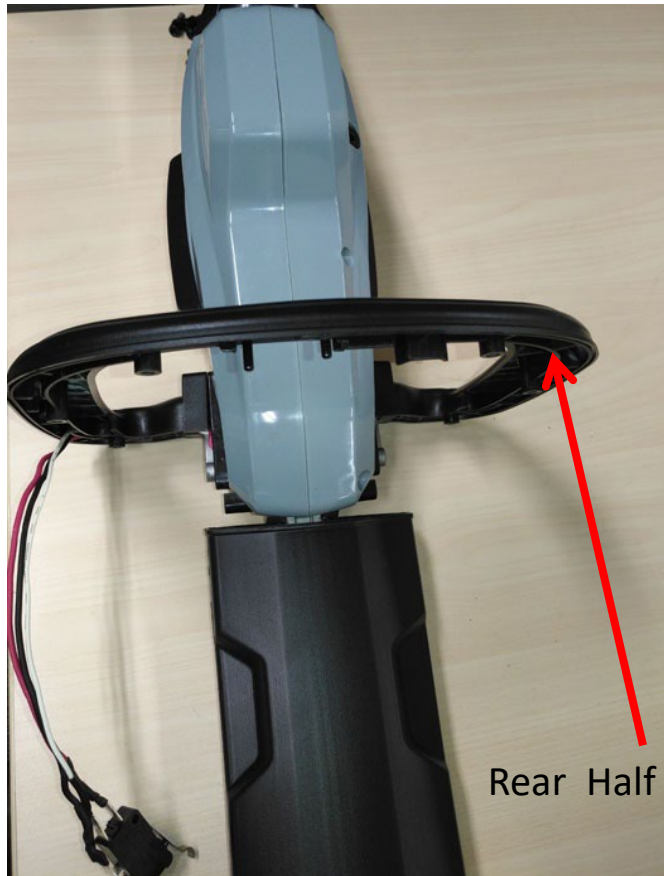


Description	Part Number
Front Switch	4870654001

Replacing the Front Handle Set

HTX7500 Hedge Trimmer

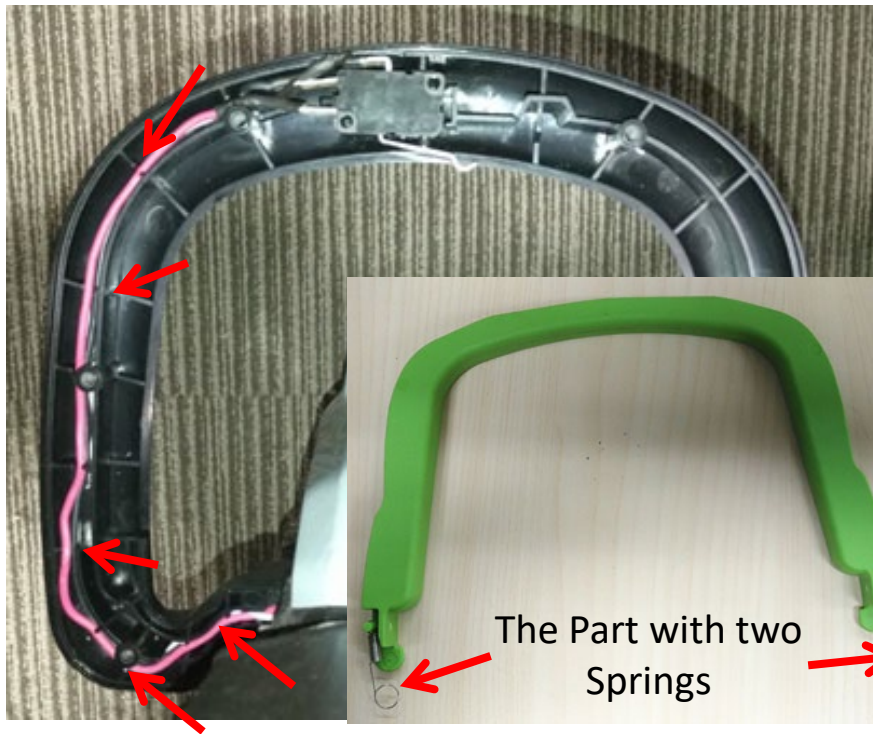
9. Mount the rear half handle to the housing.
10. Position the switch into the registration masts in the rear half handle as the figure below shows.



Replacing the Front Handle Set

HTX7500 Hedge Trimmer

11. Align the internal wires in the handle grooves, make sure the red wire is on the top and white wire is in the bottom.
12. Adjust the front switch trigger to make the part with two springs on both sides and mount the trigger into the rear half handle.



The Part with two Springs



Front Switch Trigger

Replacing the Front Handle Set

HTX7500 Hedge Trimmer

13. Close the front half handle and lock it with the 6 self tapping screws.
14. Lock the front handle on the housing with the 4 hexagon socket screws in a torque of 2~2.5Nm.
15. Mount the guard onto the housing and lock it with the 2 screws.



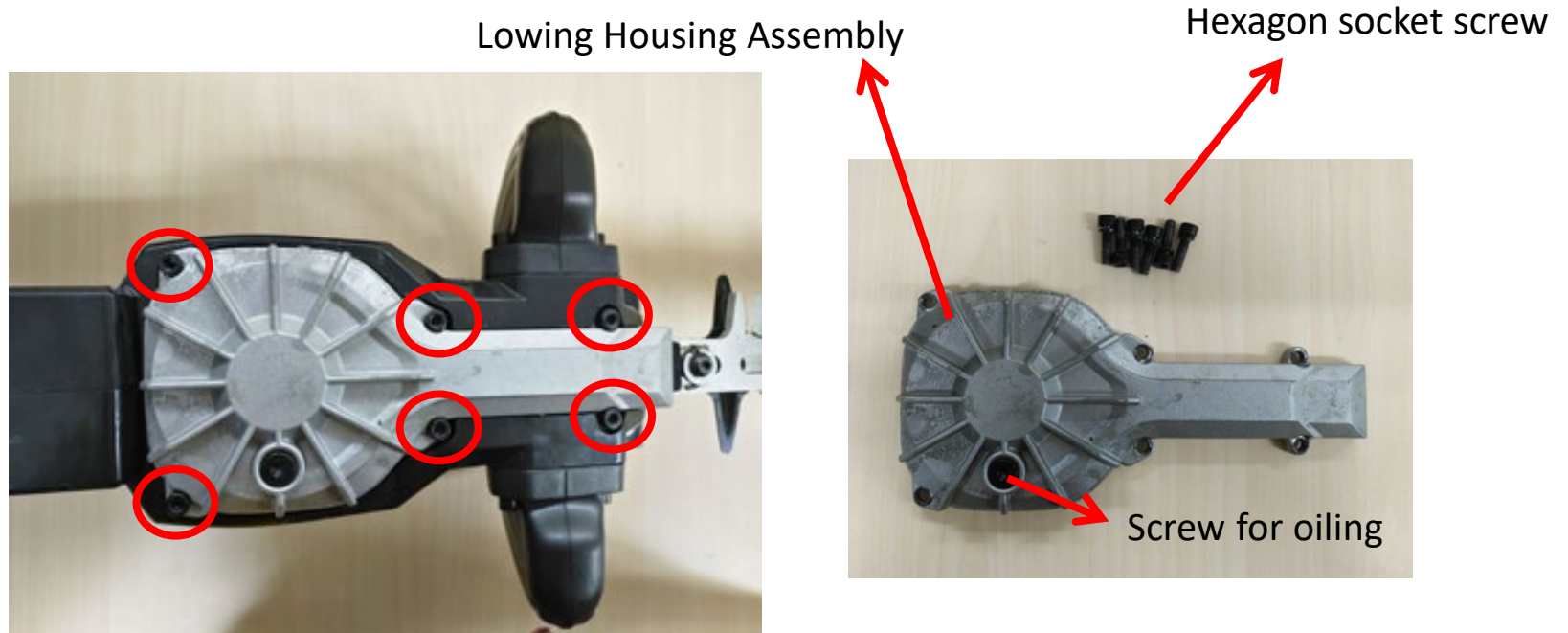
Part 3: Replacing the Blade Assembly

NOTICE: The blade set have been updated. Old blade is no longer available from the supplier. Please order the new blade sets for replacement.

Replacing the Blade Assembly

HTX7500 Hedge Trimmer

1. Use a 5mm hex wrench to remove the 6 hexagon socket screws in the lower housing assembly and remove the lower housing assembly.

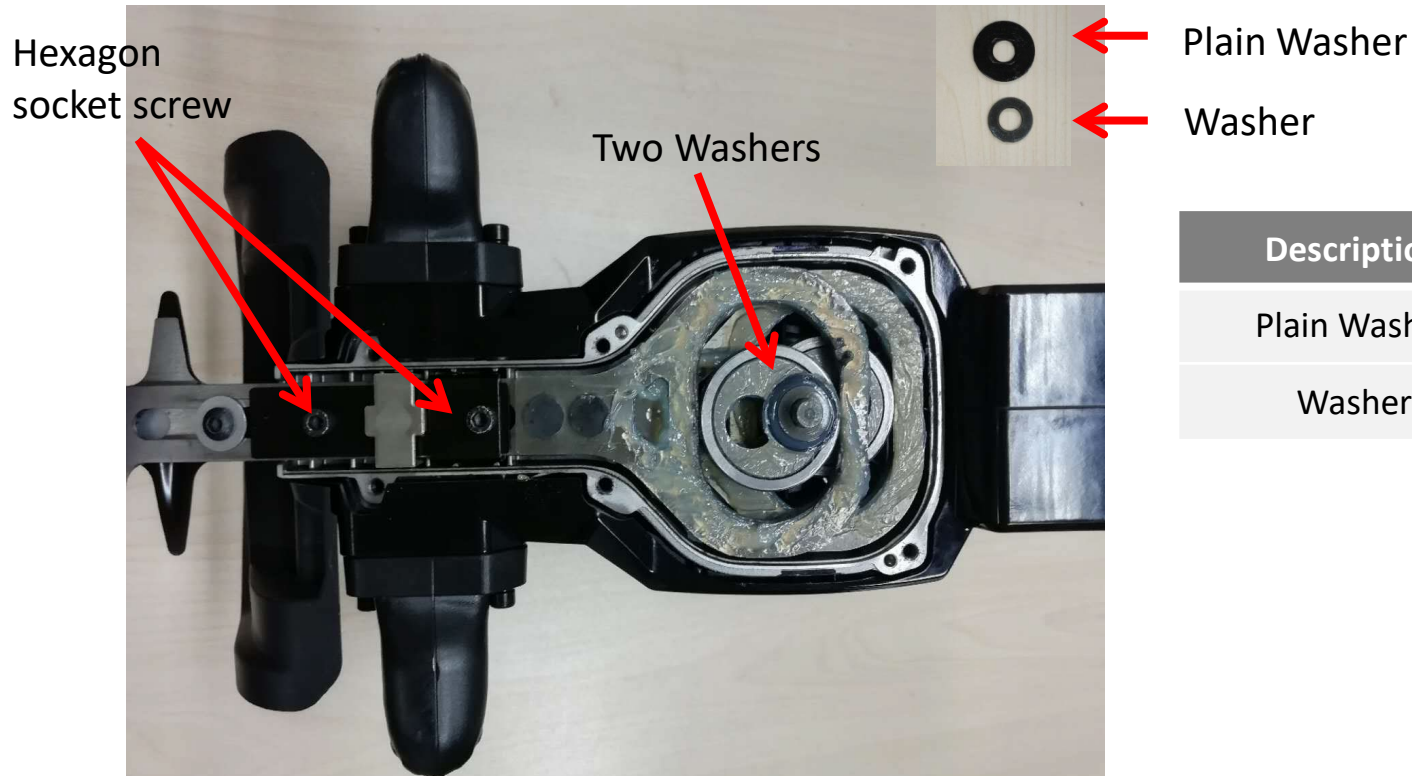


Description	Part Number	Qty
Lowing Housing Assembly	2825421001	1
Screw for oiling	5620606001	1
Hexagon Socket Screw	5620446004	6

Replacing the Blade Assembly

HTX7500 Hedge Trimmer

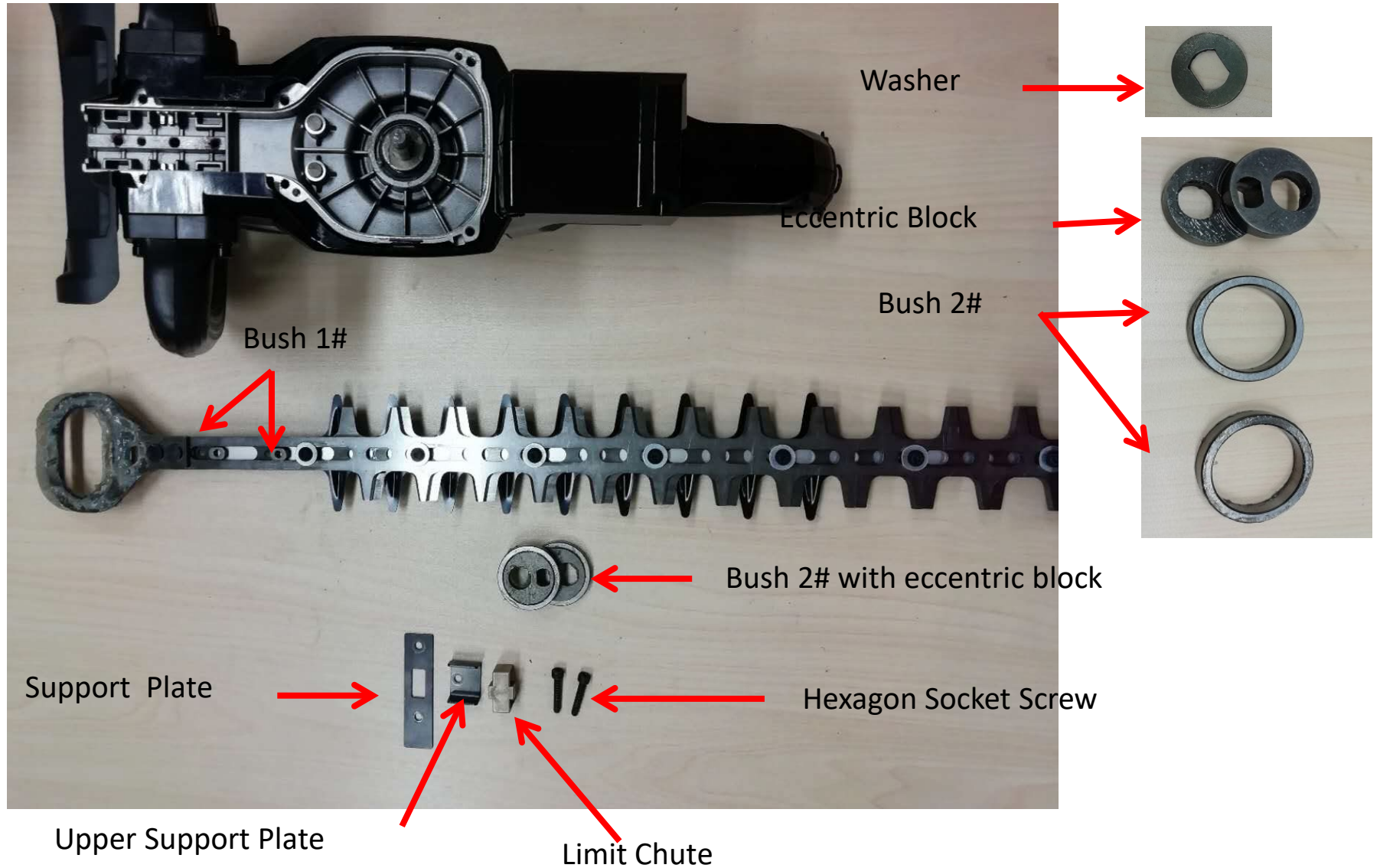
2. Remove the plain washer and washer which are on the shaft.
3. Loosen the two hexagon socket screws with an impact wrench on the blade and remove the 2pcs hexagon socket screws, limit chute, upper support plate, support plate, blade set and bearing with eccentric block from the hedge trimmer.



Description	Part Number
Plain Washer	5650630001
Washer	3660652001

Replacing the Blade Assembly

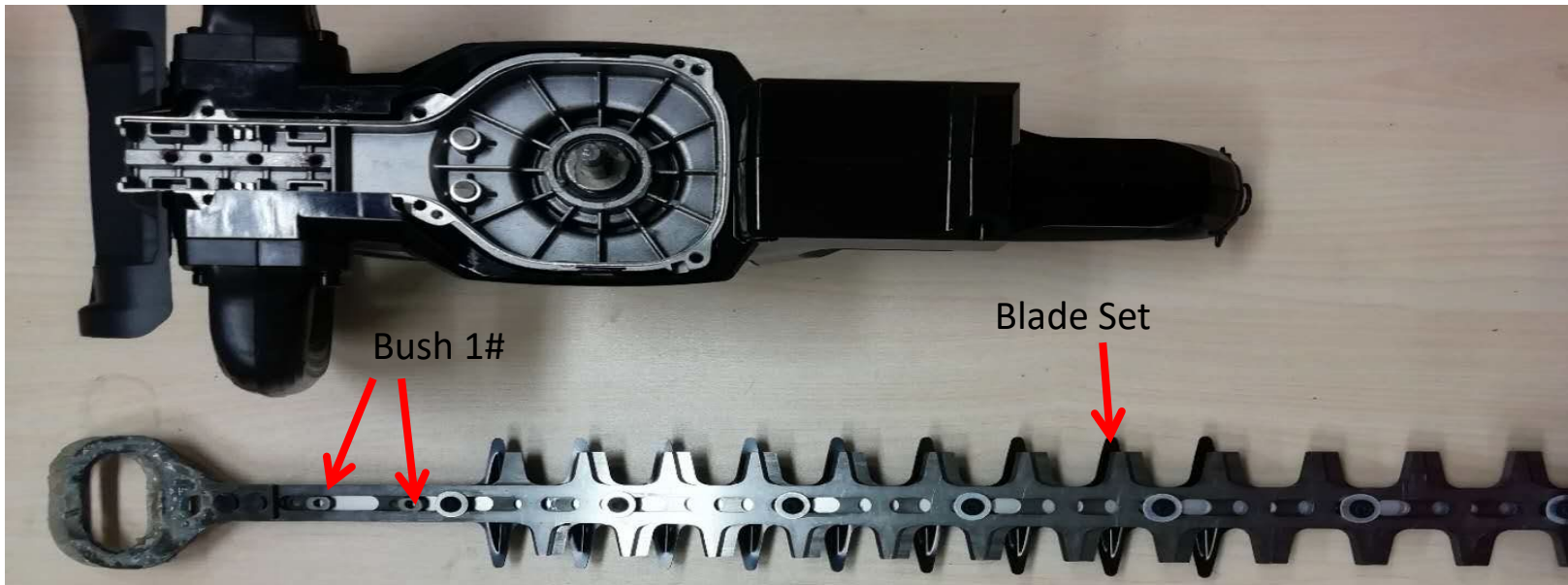
HTX7500 Hedge Trimmer



Replacing the Blade Assembly

HTX7500 Hedge Trimmer

4. Remove the two bushes out of the blade set and remove the blade set.
5. Replace the blade set and other parts if they are worn or broken.



Part	Old Number	New Number
Blade	2826489001 (Not available any more)	Cancel this part
Blade Set	2826491001 (Not available any more)	2824567001
Bush 1#	5650531001 (Not available any more)	3580331001

Replacing the Blade Assembly

HTX7500 Hedge Trimmer

NOTICE: The blade set has been updated while the single blade has been cancelled. When replace with the new blade set, the new bush #1 and the ball bearing should be replaced together. So the blade set(2826491001) includes the ball bearing(s) and the new bushes.

Bush 2# (5650693001)



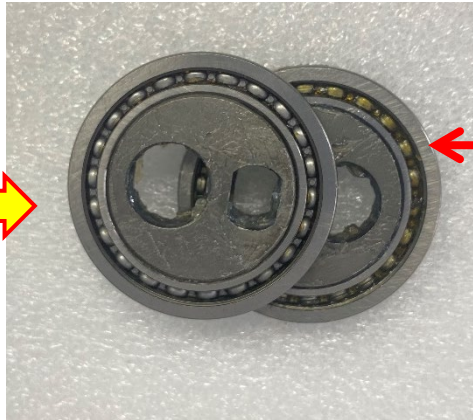
Replaced by

Ball bearing(5700329001)

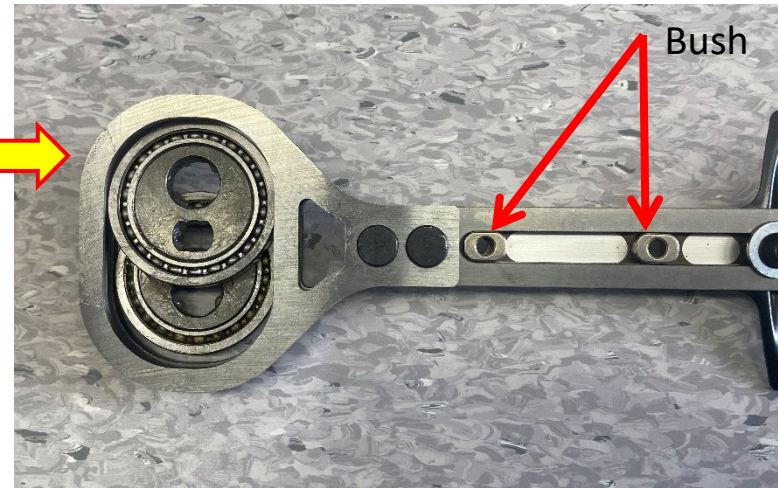


Replacing the Blade Assembly

6. Assemble the bearing with eccentric block and bush onto blade set.



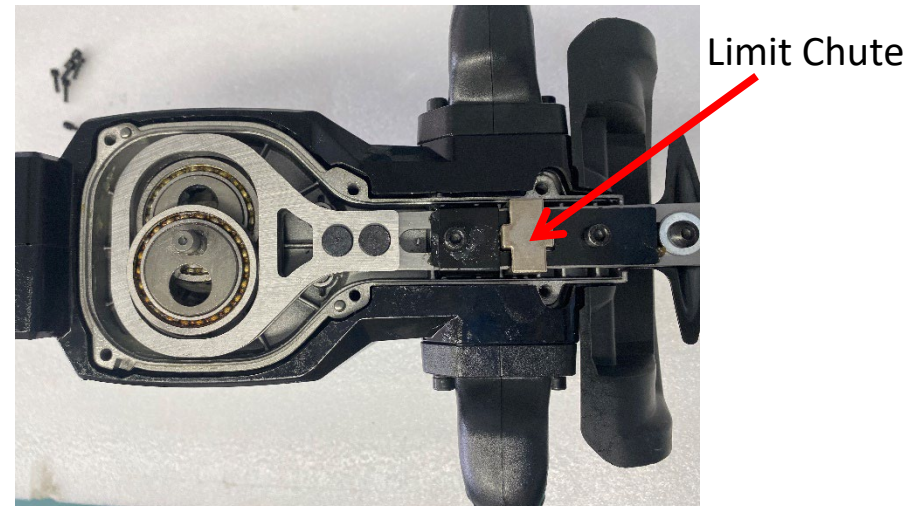
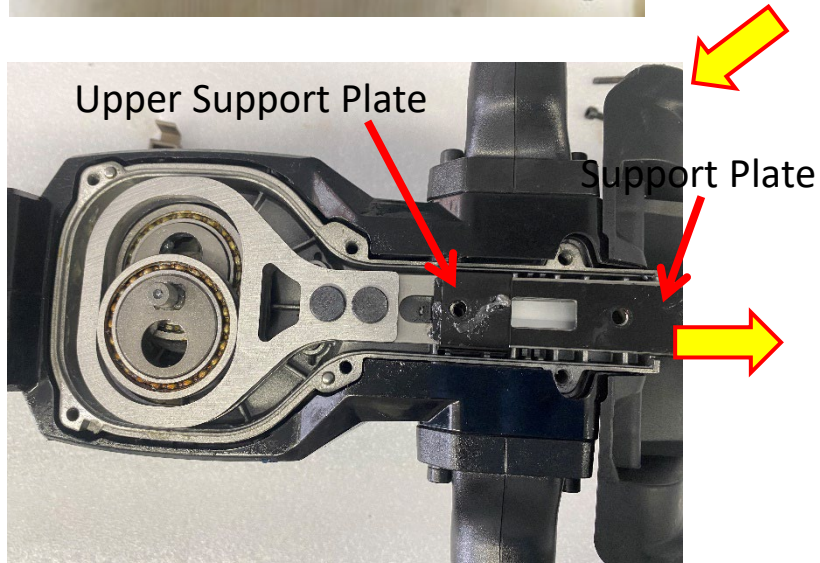
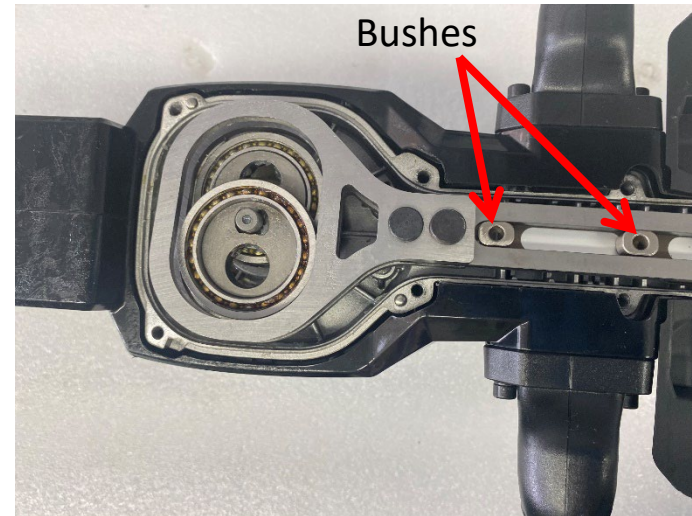
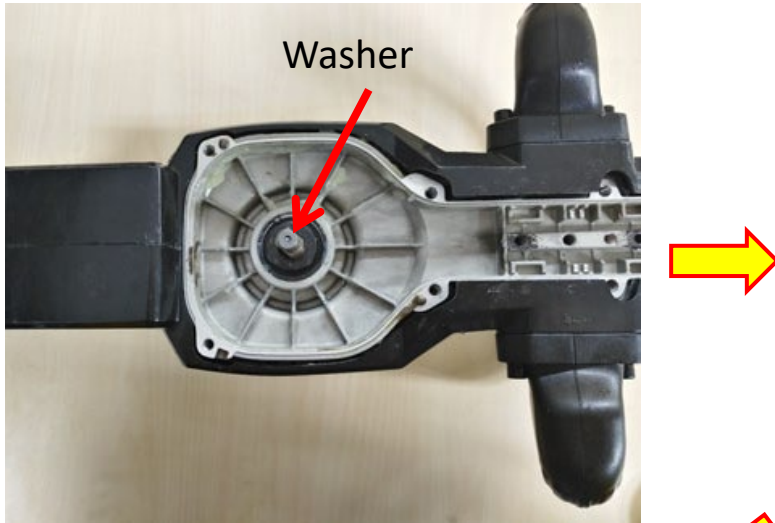
Ball bearing with eccentric block



Replacing the Blade Assembly

HTX7500 Hedge Trimmer

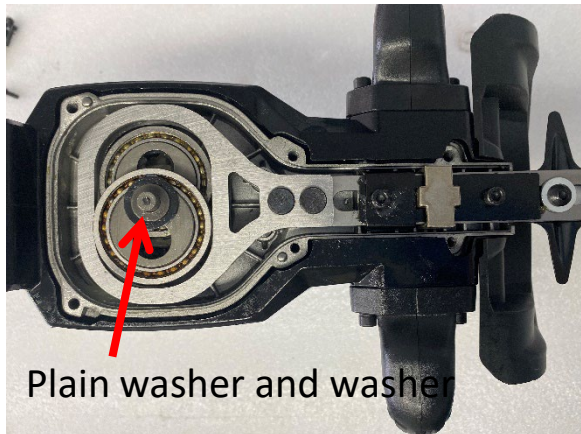
7. Mount the washer, blade set, bushes, support plate, upper support plate and limit chute in turn.



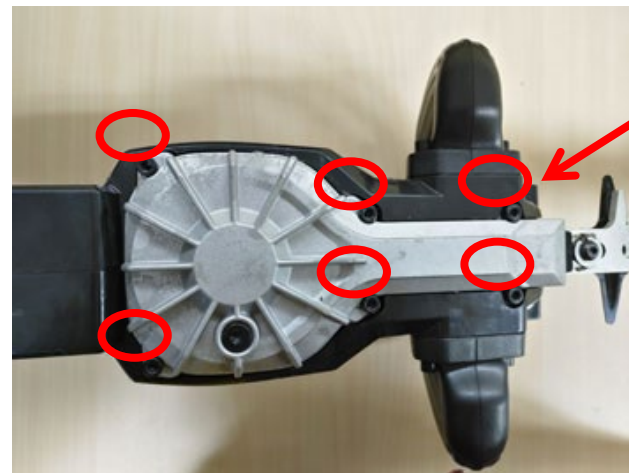
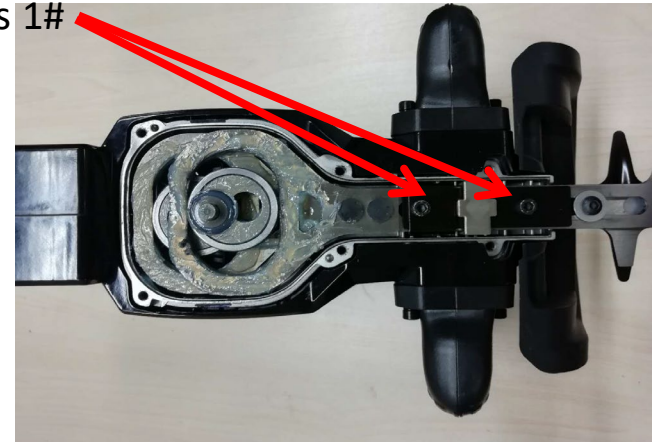
Replacing the Blade Assembly

HTX7500 Hedge Trimmer

8. Mount the plain washer and washer in sequence.
9. Mount 2pcs hexagon socket screws 1# in a torque of 4.5~5Nm. Sealed with the teflon paste.
10. Mount the lower housing Assembly and tighten 6pcs hexagon socket screws 2# in a torque of 4.5~5.5Nm.



Hexagon Socket
Screws 1#



Hexagon Socket Screws 2#

11. Install the battery and test for proper operation for at least 30 seconds. If not, reassemble all the parts, making sure every step is correct.

Part 4: Replacing the PCB and Motor Assembly

Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

1. Following the instructions for **“Replacing the Front Handle Set”** to remove the guard and front handle set.
2. Loosen and remove the 5 self tapping screws in the right housing cover and open the housing.



Description	Part Number
Housing Cover	2825424001
Tapping Screw	5620479001



Tapping Screw

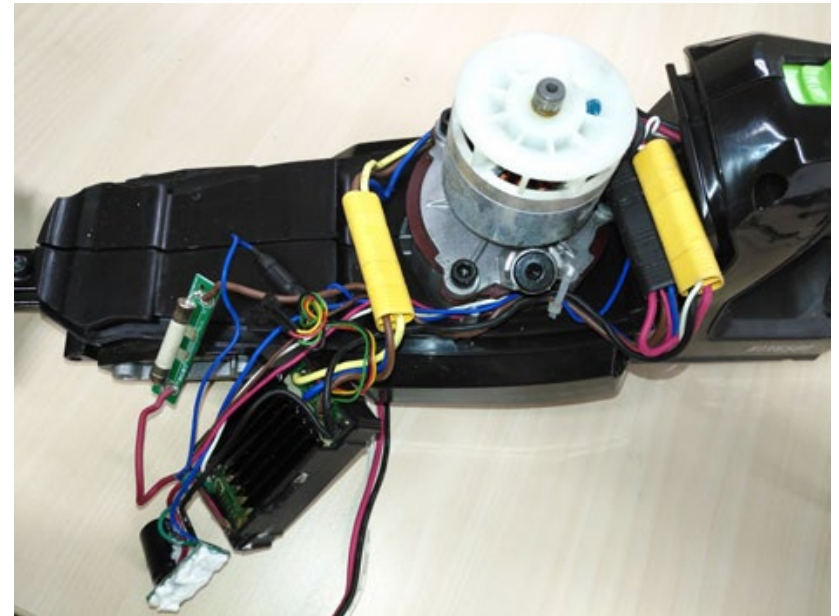


Right Housing
Cover

Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

3. Pull out the three connectors from the left housing cover and separate the left housing cover from the hedge trimmer.
4. Remove the four heat shrinkable sleeves from the connectors.

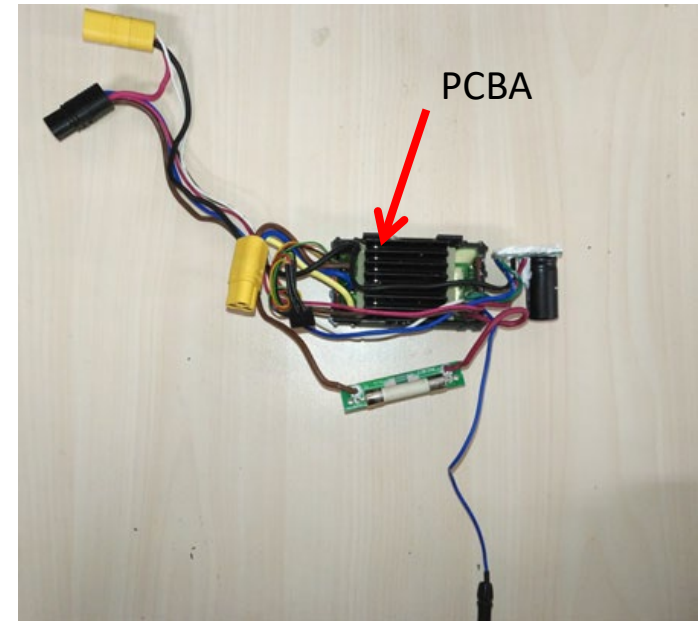
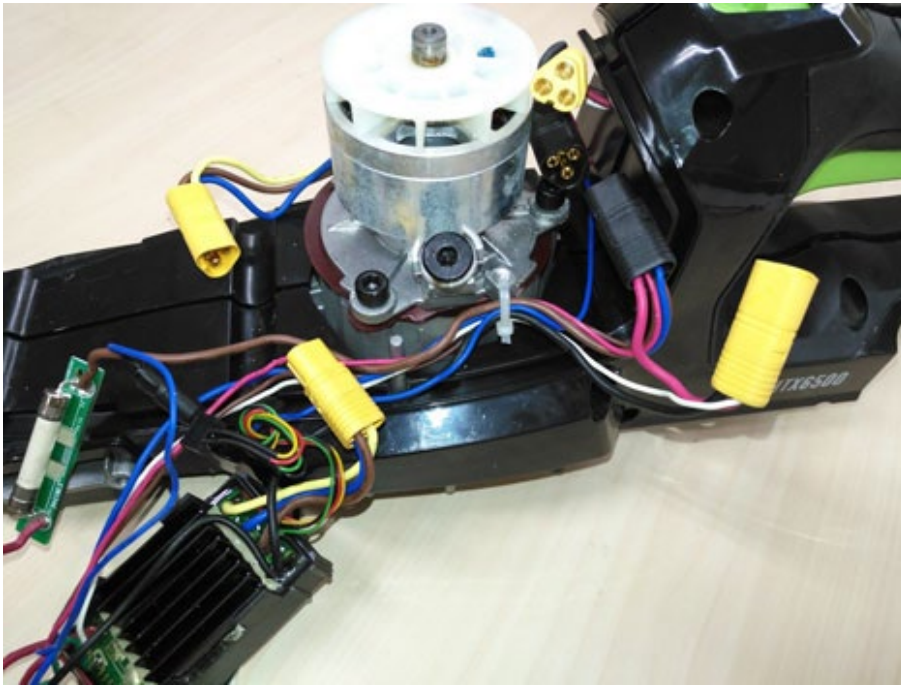


Left Housing Cover

Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

5. Disconnect the four connectors and take out the PCBA. If the PCBA is damaged, replace with a new one.

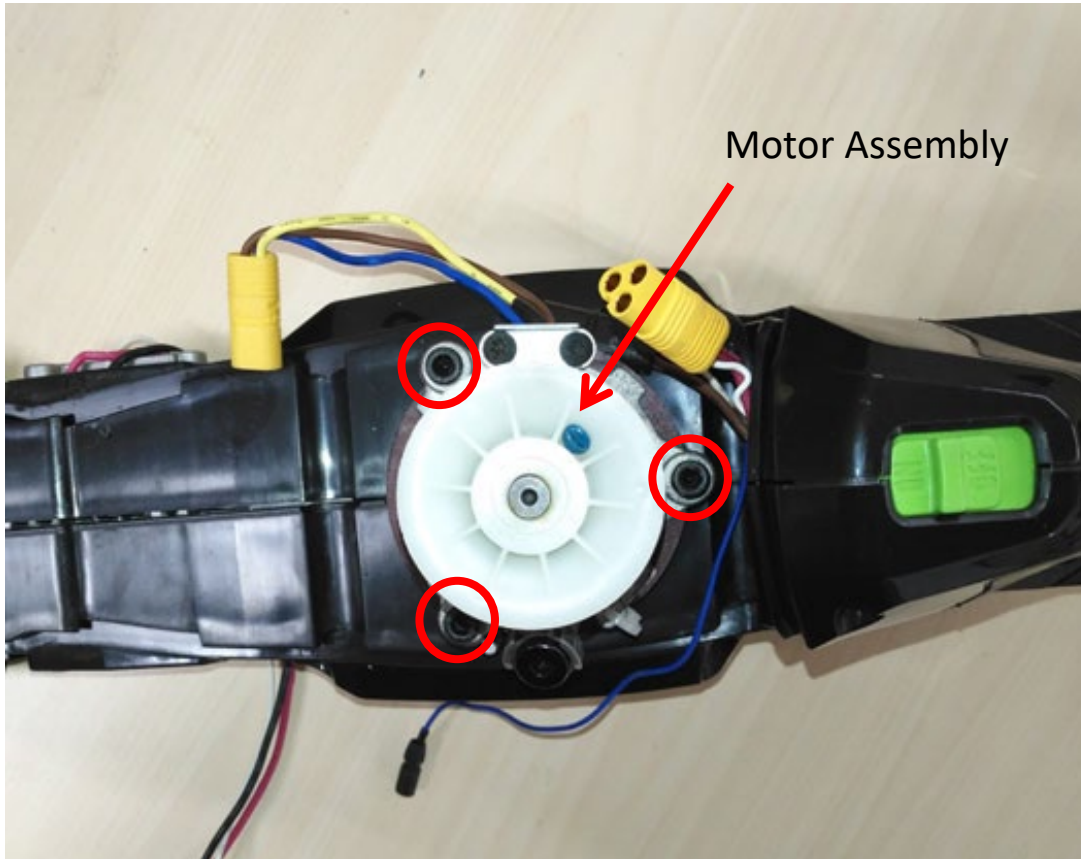


Description	Part Number	QTY
PCBA	2830279001	1

Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

- Remove the three hexagon socket screws to separate the motor assembly from the hedge trimmer.

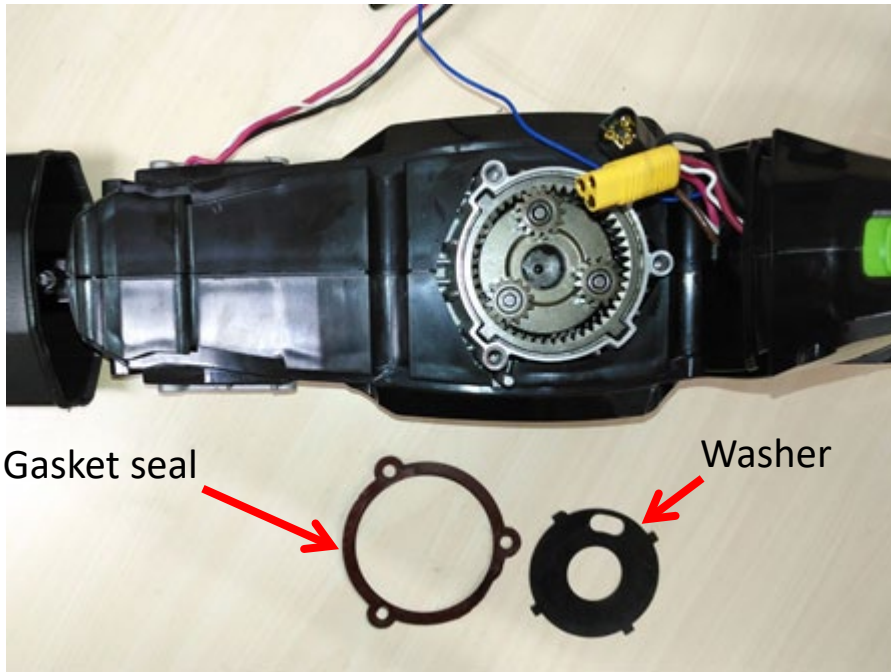


Description	Part Number	QTY
Motor Assembly	2825419001	1
Hexagon Socket Screw	5620446003	3

Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

7. If the gasket seal, washer, ring gear #1, planet gear #1, sun gear assembly, planet gear #2 or ring gear #2 (in sequence of disassembly) is damaged, take it out from the gear case assembly and replace with a new one.



Description	Part Number	QTY	Description	Part Number	QTY
Gasket Seal	5690399001	1	Sun Gear ASSY	2824336001	1
Washer	5650631001	1	Planet Gear #2	3520887001	5
Ring Gear #1	3520889001	1	Ring Gear #1	3520888001	1
Planet Gear #1	2824554001	3			

Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

8. If the carrier or gear case assembly is damaged, remove the 9 tapping screws and the pothook to separate the rear handle assembly.

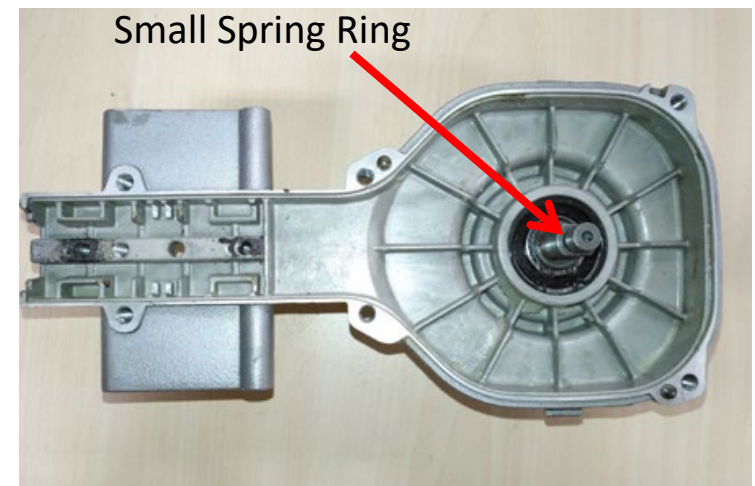
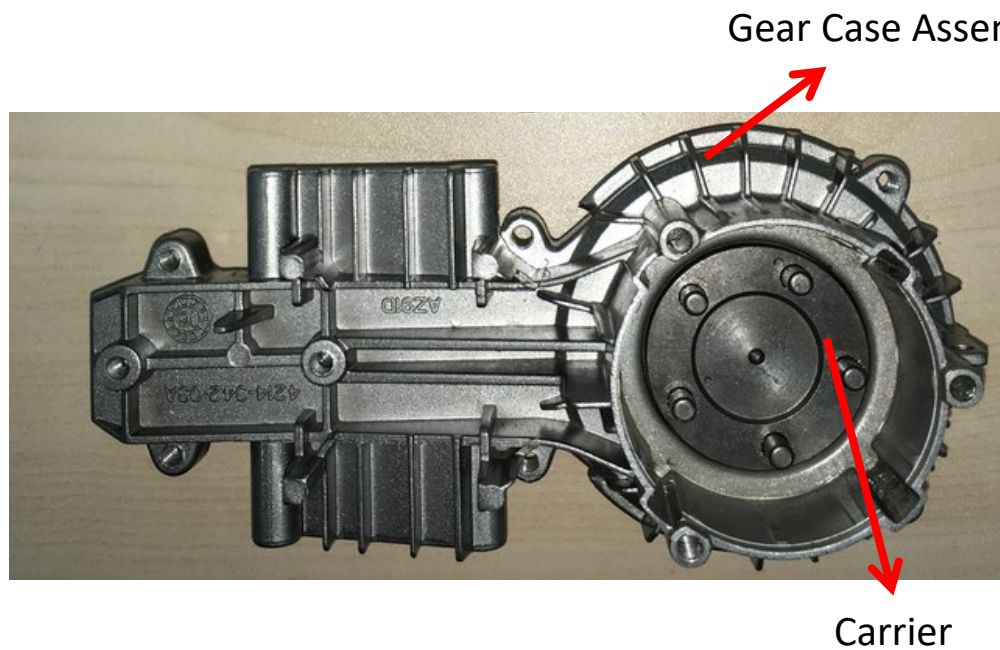


Description	Part Number	QTY
Rear Handle Assembly	3900038001	1
Tapping Screw	5620479001	9

Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

- Following the instructions for “**Replacing the Blade Set**” to remove the blade set and ball bearing with eccentric block.
- Remove the small spring ring for shaft and replace with a new gear case or carrier.

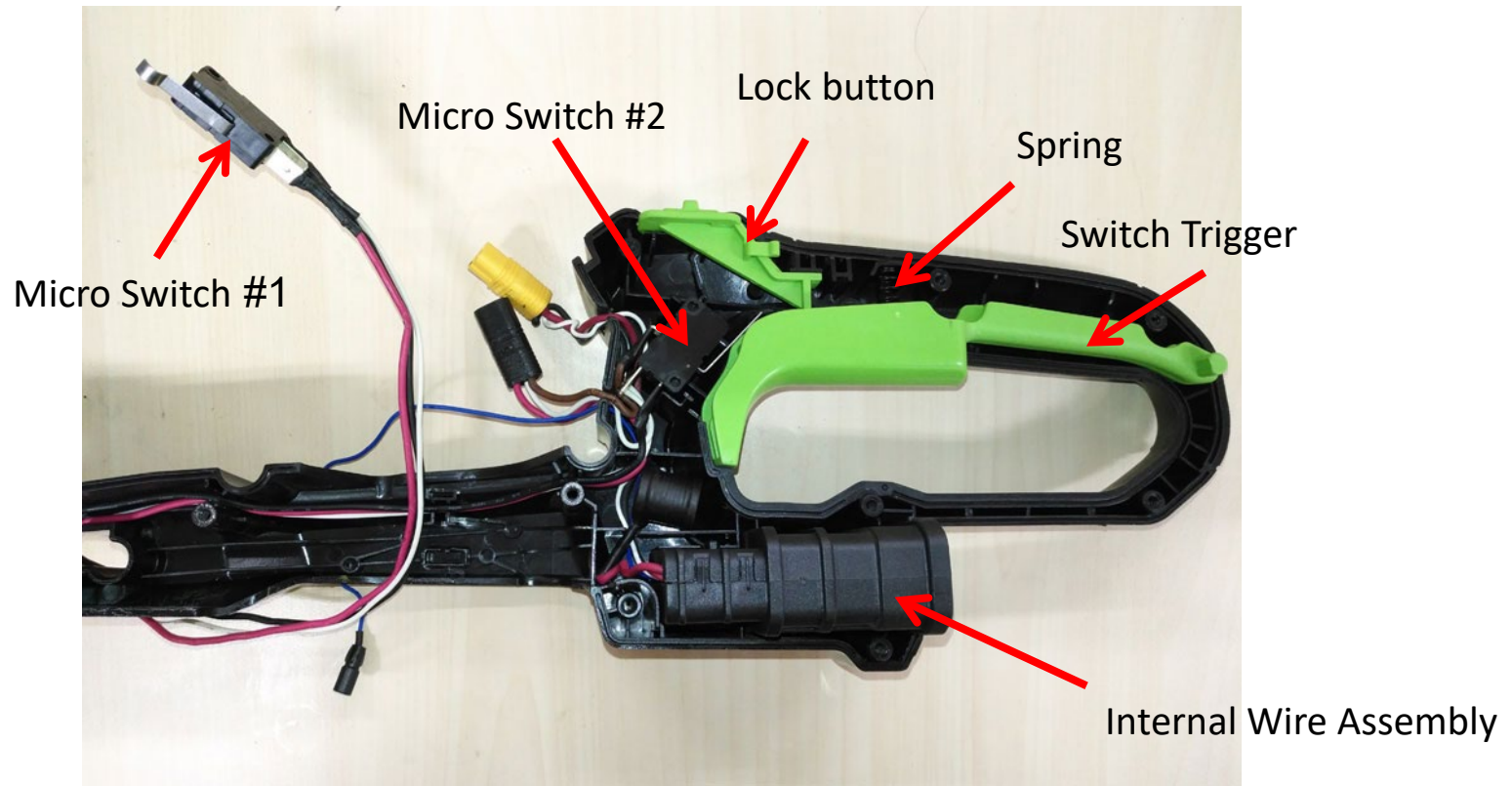


Description	Part Number	QTY
Rear Handle Assembly	3900038001	1
Tapping Screw	5620479001	9

Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

11. If any parts in the picture below are damaged, replace it with a new one.



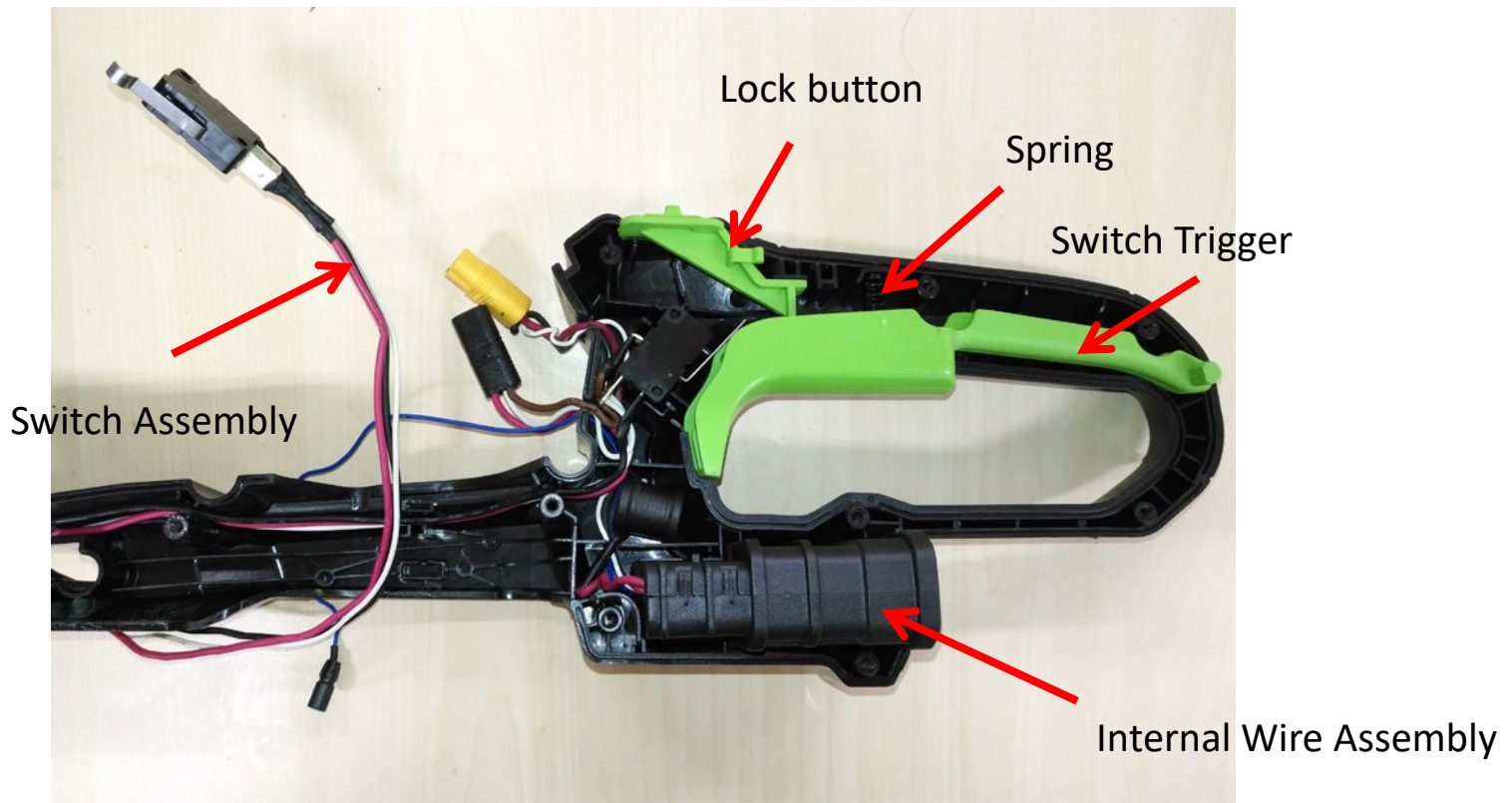
Description	Part Number	QTY	Description	Part Number	QTY
Switch Trigger	3129177001	1	Internal Wire ASSY	3129175001	1
Spring	3660076001	1	Micro Switch	4870639001	1
Lock Button	3129175001	1	Micro Switch	4870654001	1

Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

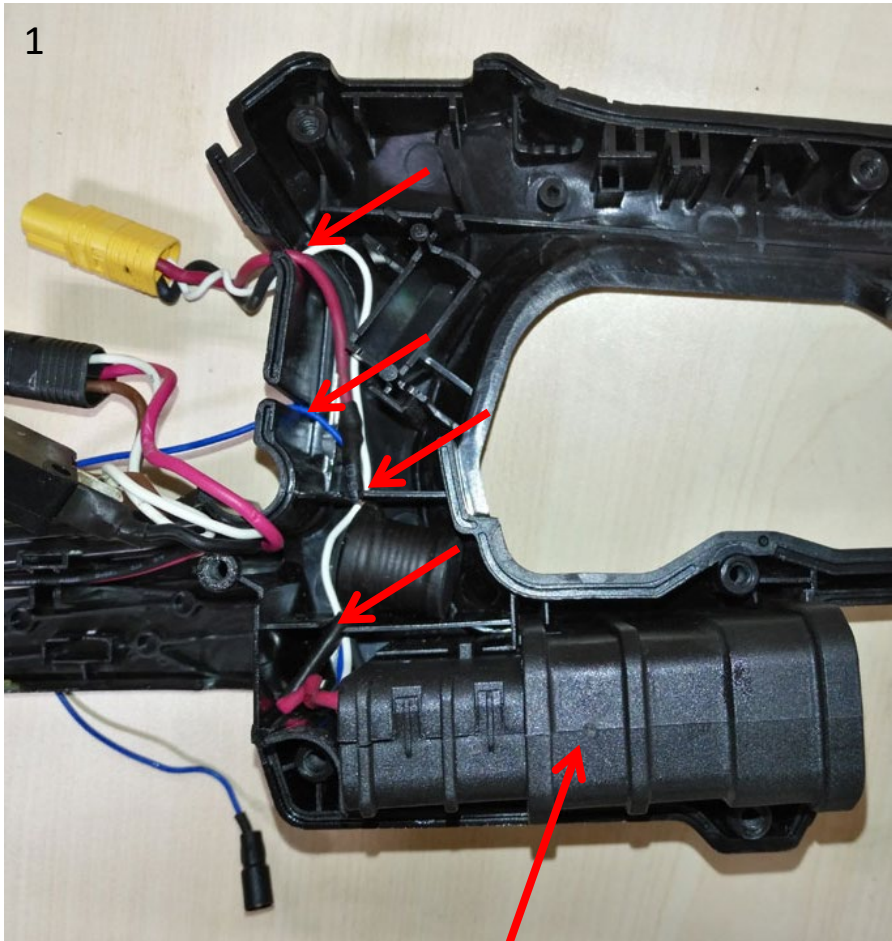
12. Mount the internal wire assembly, switch assembly, lock button and switch trigger with its spring into the rear handle in sequence.

Notice: Pay attention to the correct row line, showing in next slide.

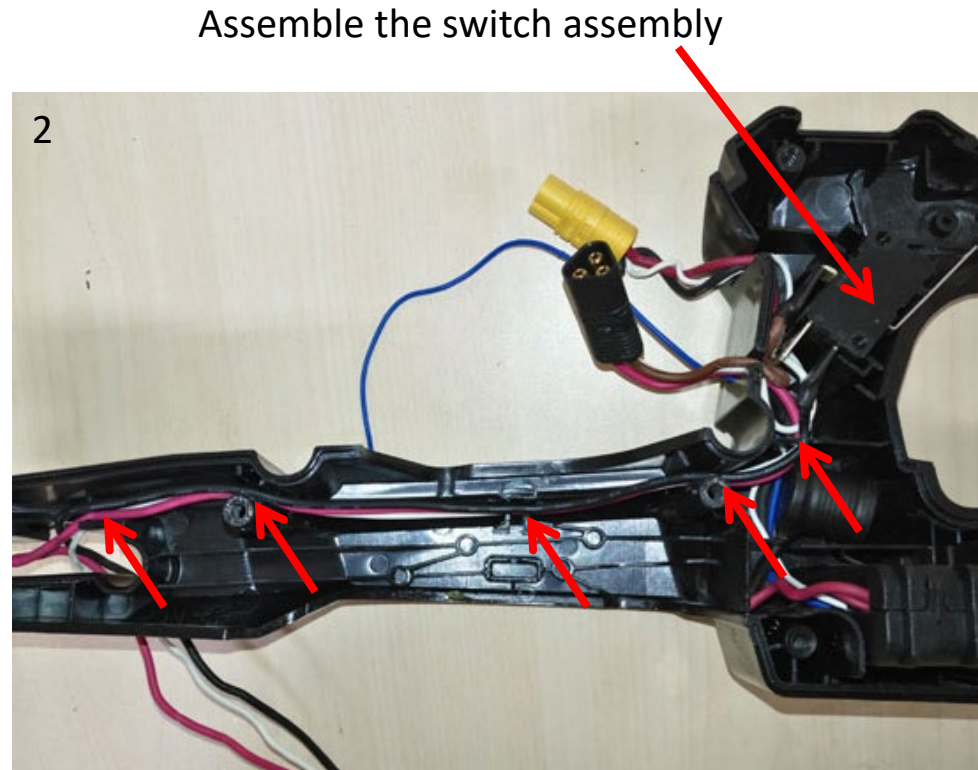


Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer



Assemble the internal wire assembly



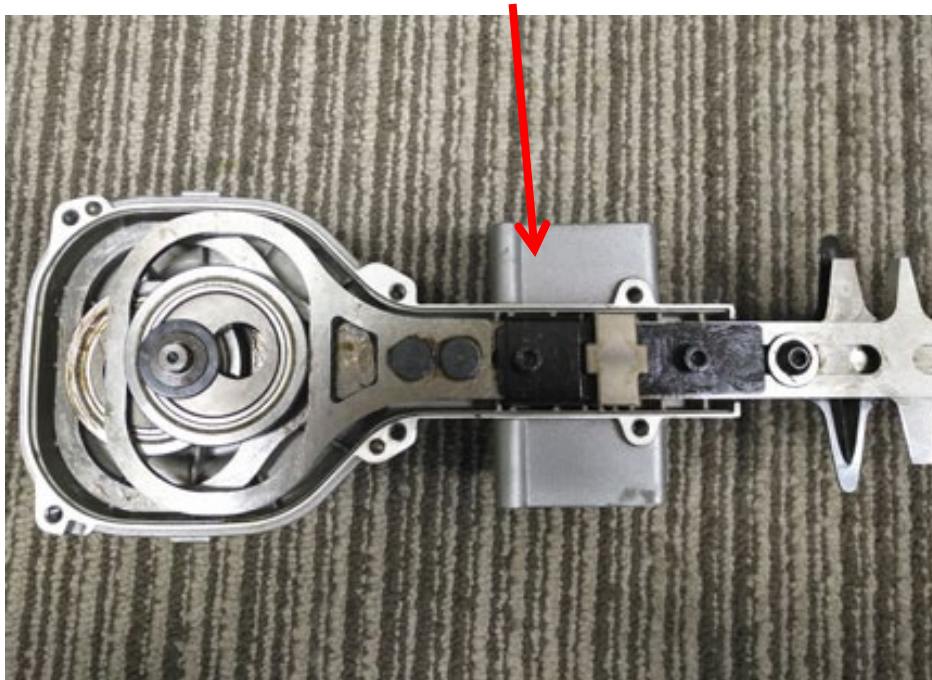
Description	Part Number	QTY
Switch Assembly	2825679001	1

Replacing the PCB and Motor Assembly

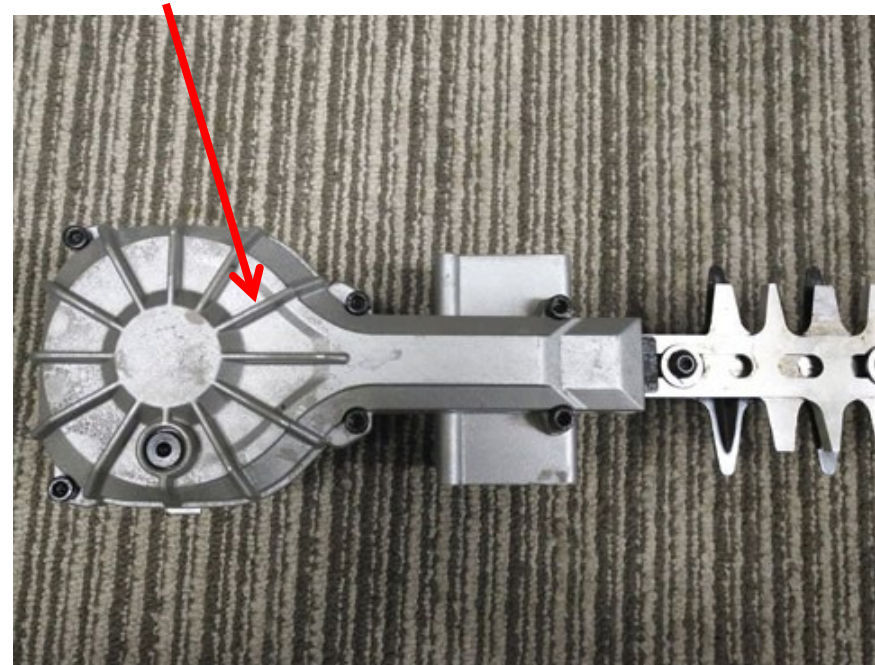
HTX7500 Hedge Trimmer

13. Following the instructions for **“Replacing the Blade Set”** to assemble the blade set and lower housing to the gear case assembly.

Gear Case Assembly



Lower housing



Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

14. Mount the rear handle assembly onto the gear case and mount the pothook to the rear handle assembly.

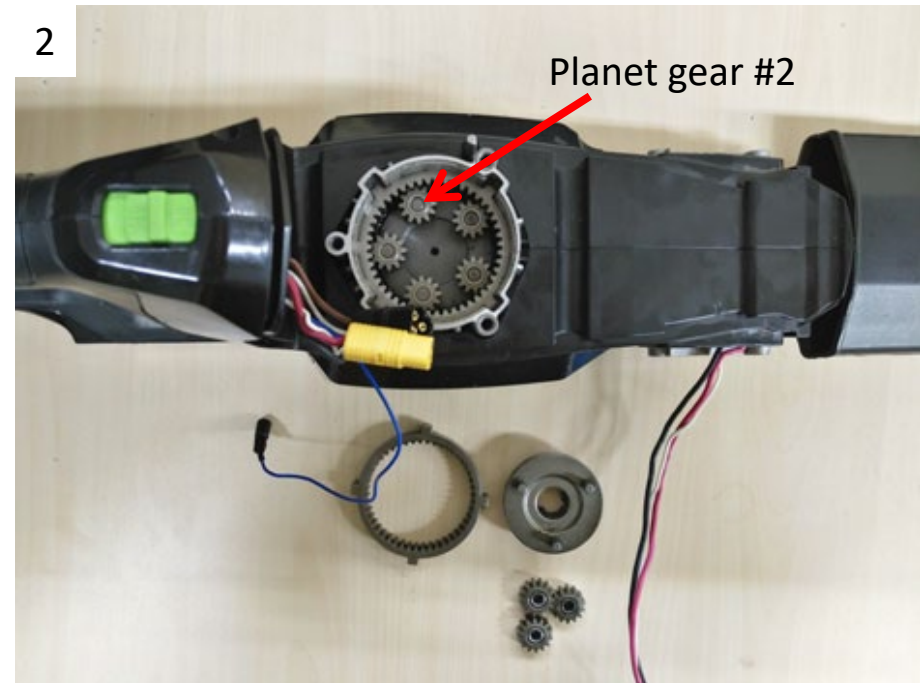


Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

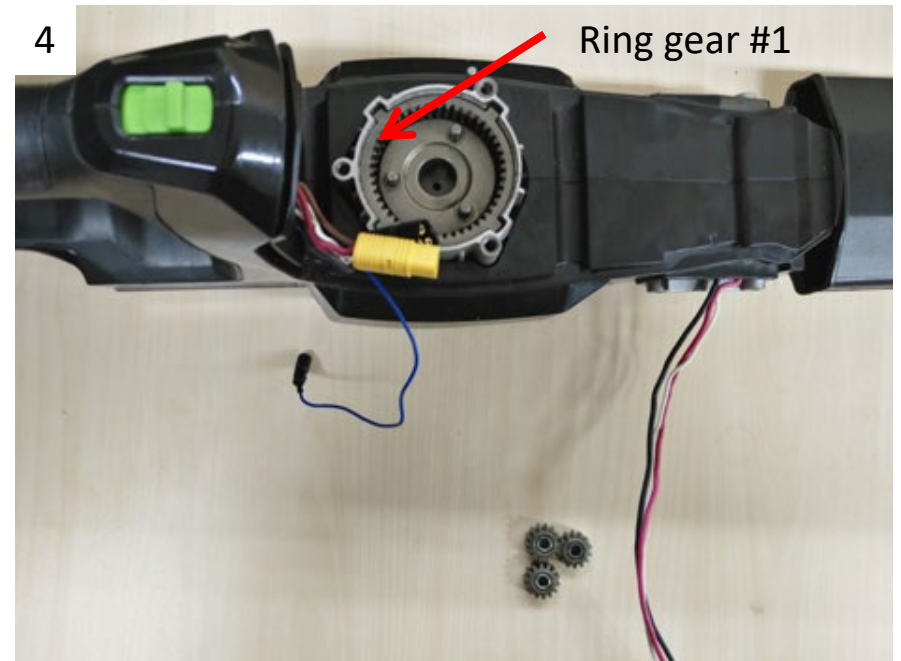
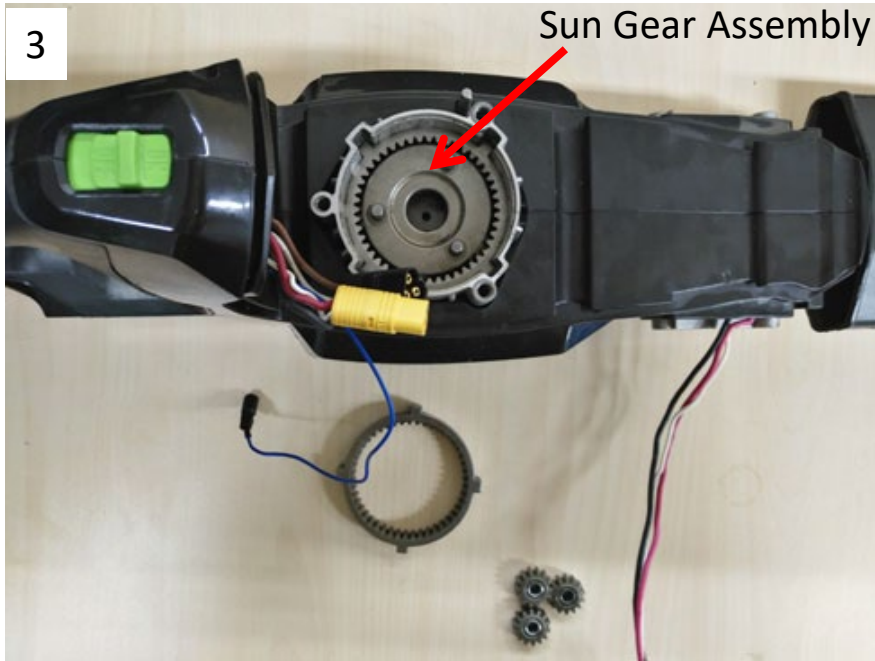
15. Mount the ring gear #2, 5 planet gears #2, sun gear assembly, 3 planet gears #1, ring gear #1, washer, gasket seal and the motor assembly onto the gear case.

Notice: Before mounting the parts below, add some grease (required in the user manual) to the gears.



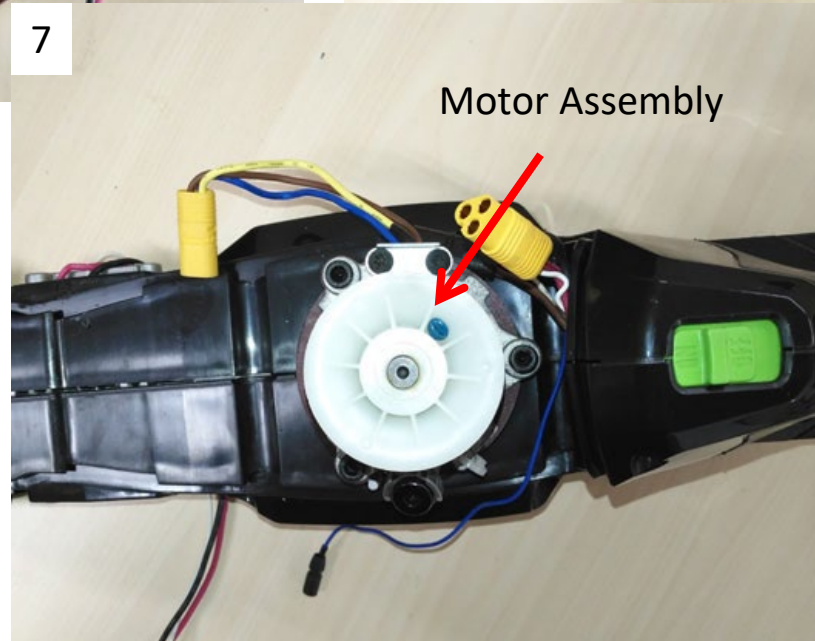
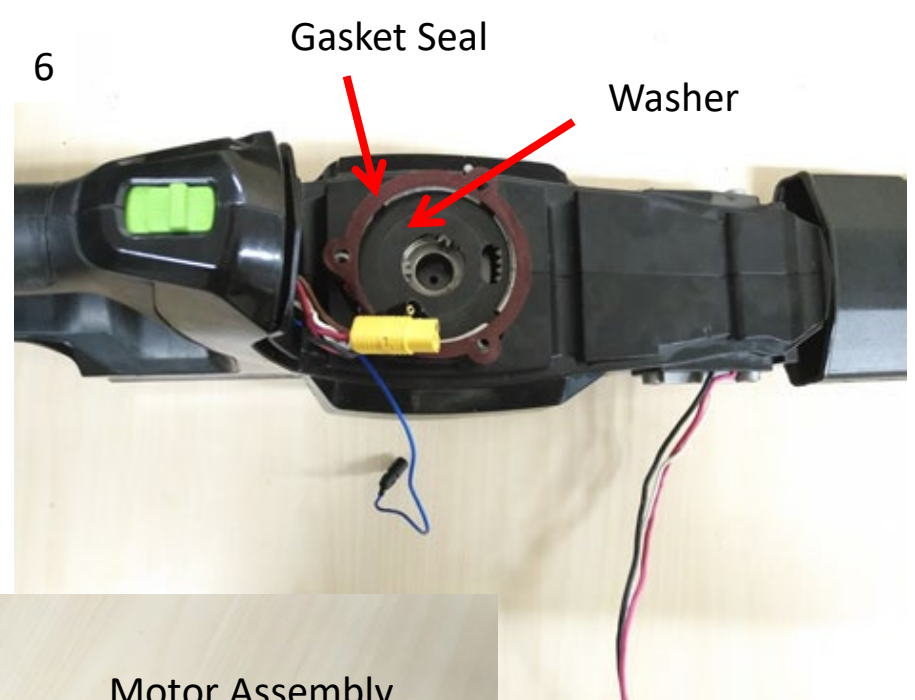
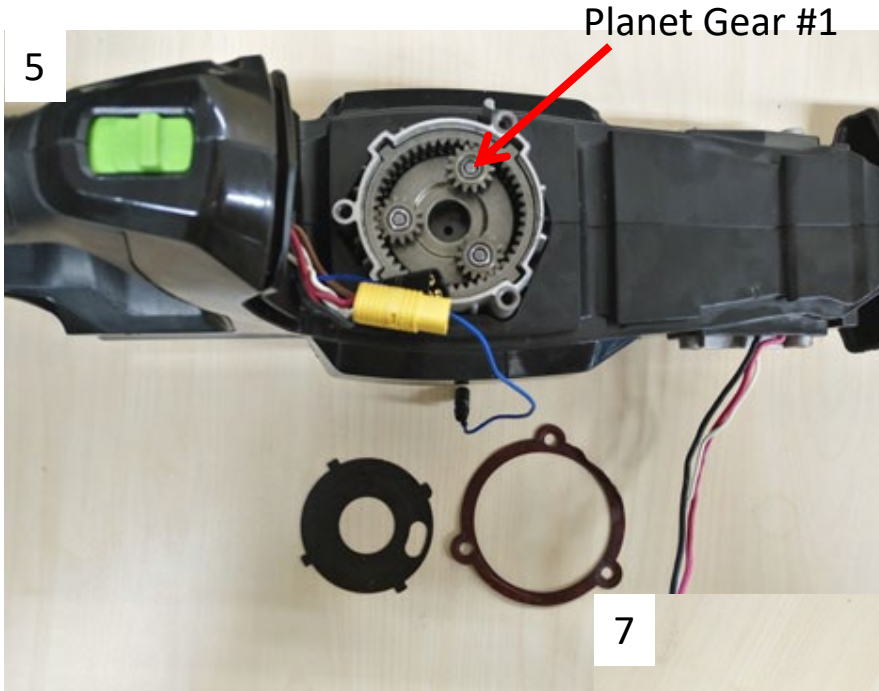
Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer



Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

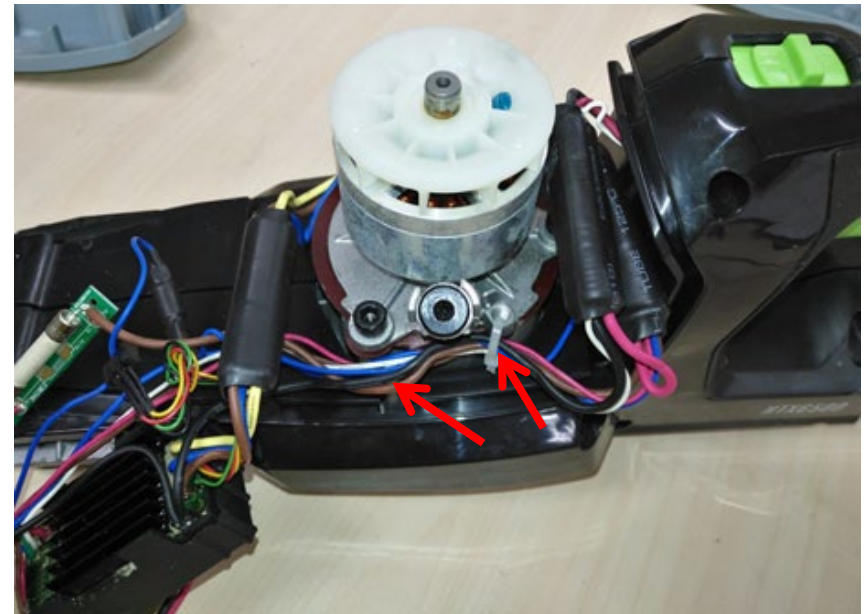
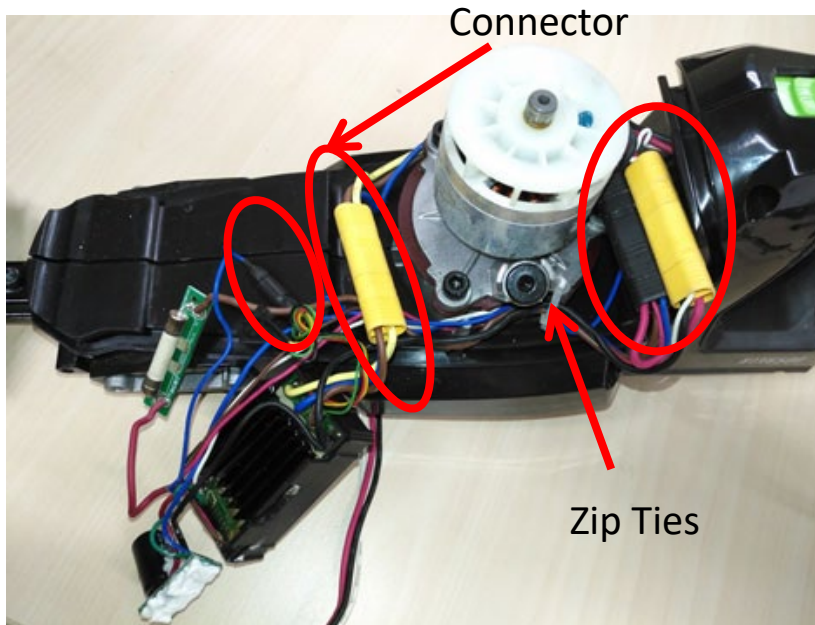


Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

16. Connect the four connectors and wrap the connectors with a heat-shrinking sleeve.

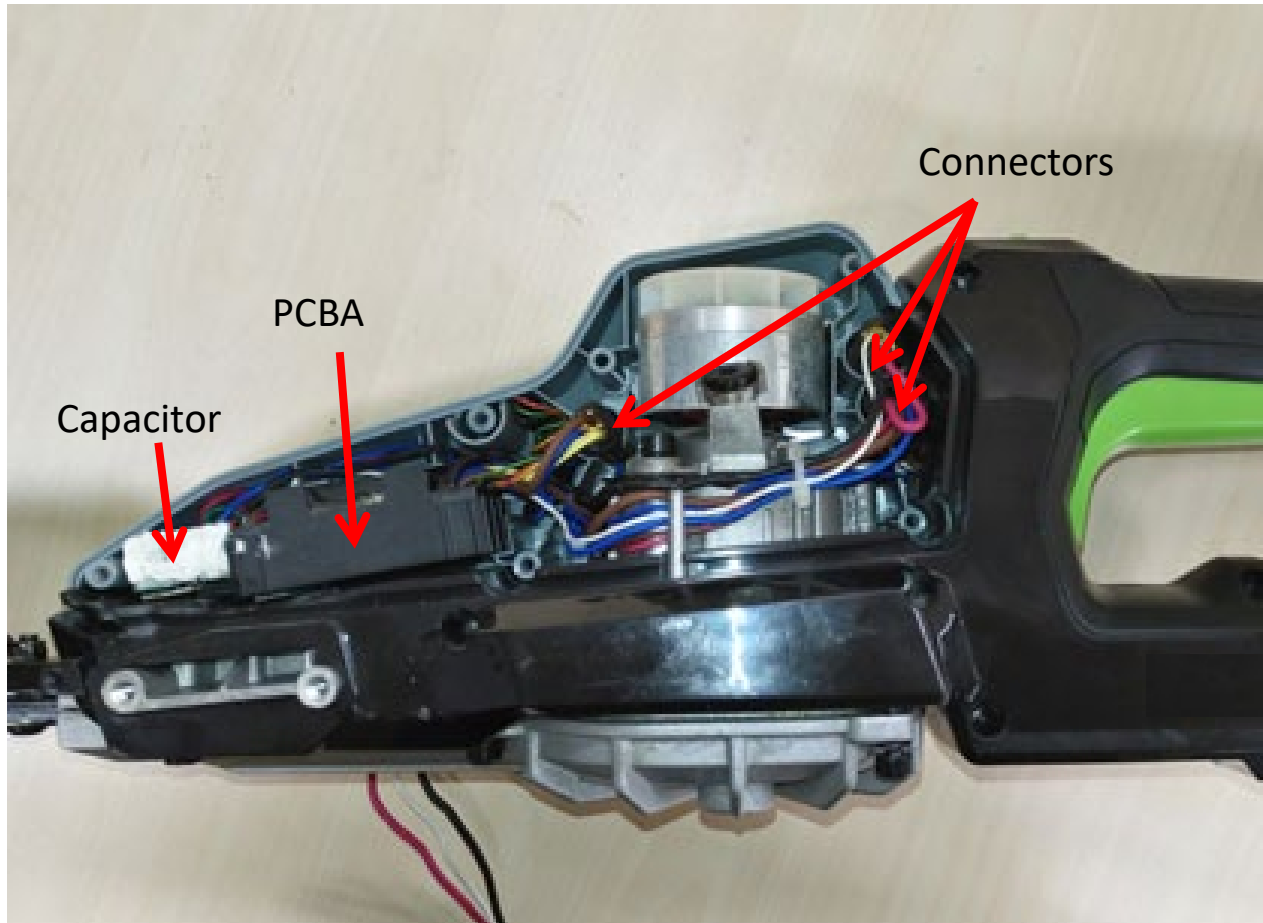
Notice: Pay attention to the correct row line and use a zip ties to fix the wire harness.



Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

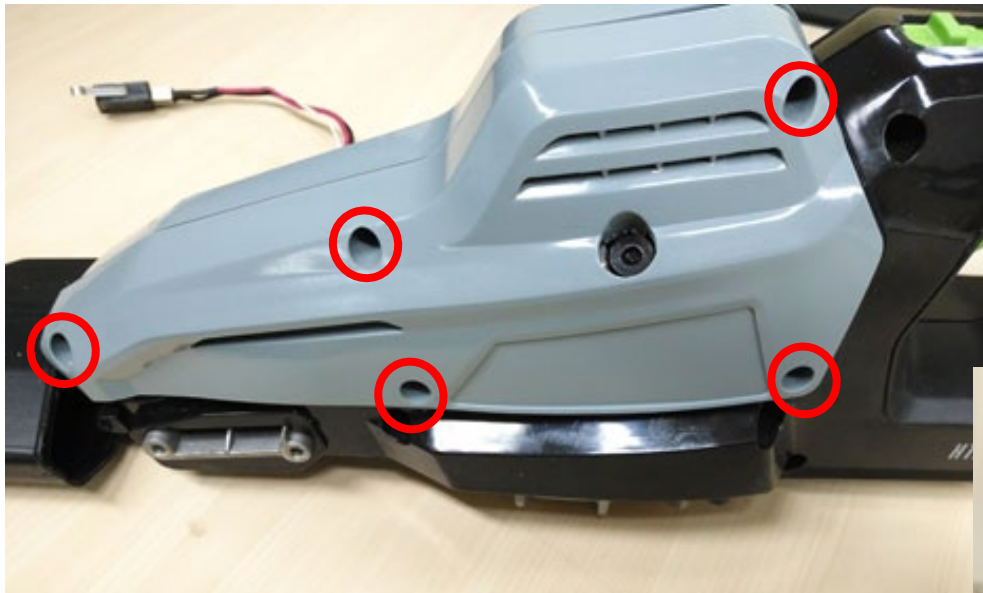
17. Put the three connectors, PCBA and a black capacitor into their grooves of left housing cover.



Replacing the PCB and Motor Assembly

HTX7500 Hedge Trimmer

18. Close the housing cover by tighten the 5 screws.
19. Mount the front handle set and guard following the instructions for **“Replacing the Front Handle Set”**.



THE END