dyson pure hot+cool cryptomic

Service manual

SMPR-EN-HP07-7A-09-10-11-12-03/25-V1

Dyson Service Manual - Version Control

Version History Table

Original launch document version number: SMPR-EN-HP07-07A-09-10-11-12-03/25-V1
Publication Date: 03/2025

Revised version number	Detailed content of change	Change Author	Publication Date

These repair instructions are intended for professional repairers of local space heaters only. Dyson accepts no liability for any incorrect use of these instructions.

This manual covers the full disassembly and reassembly of the following models:

HP07, HP7A, HP09, HP10, HP11, HP12

Model identifier can be found on the rating plate, that is on the base of the product

Contents

Electrical safety testing

All repairs should be tested in accordance with applicable safety standards and regulations.
Dyson authorised repairers should also follow TSI 0432.

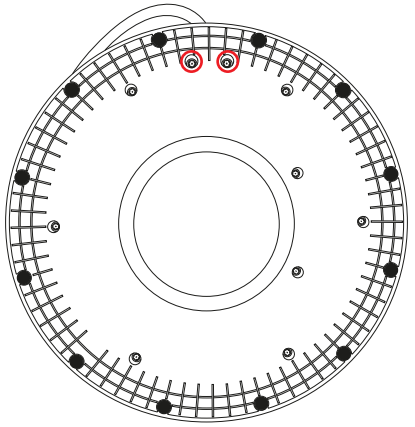
Ensure at all times during the repair and testing of products that owners, children, animals and yourself are not exposed to any Live electrical supply.

The following MANDATORY tests must be adhered to when carrying out a service activity to a Class 2 product:

1. Visual inspection
You must ensure that a full visual inspection of the entire product is completed prior to the service activity.

2. Insulation test
An insulation test/s must be performed upon completion of an 'invasive' service activity.

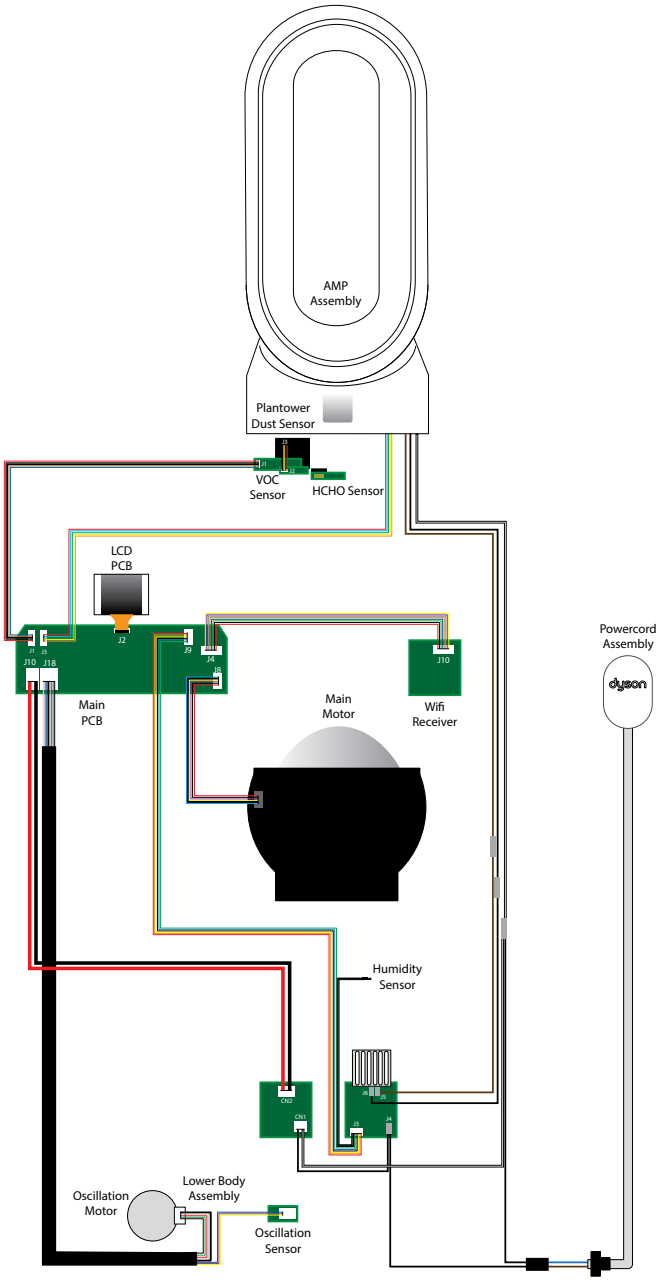
Insulation test points:
Test directly onto the area/s highlighted.



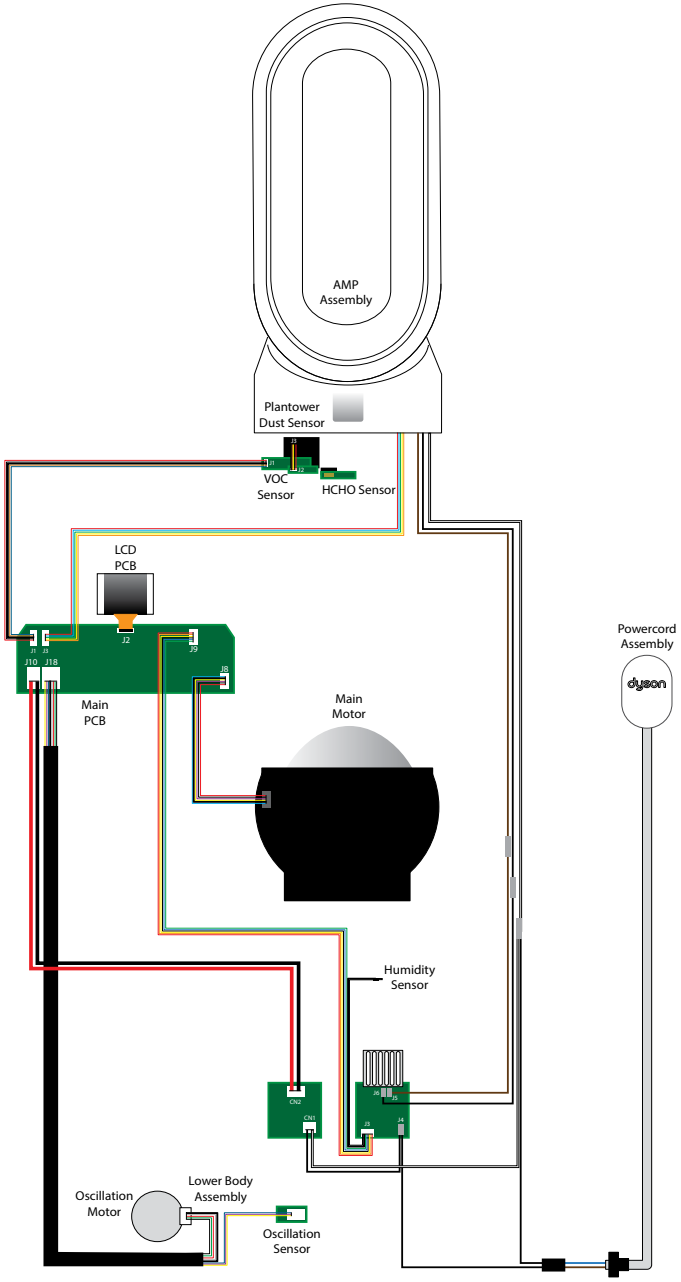
Test results:
A minimum reading of 2MΩ must be achieved.
A reading below 2MΩ is not considered safe and further investigation, rectification and testing must be completed before the product is used.

If you are unable to complete the service activity on a product with an insulation test reading below the minimum requirement, you must inform the owner that it is unsafe to use. Inform the owner of the required actions to resolve the issue.
If the product is left unresolved please indicate on the relevant CRM system that the product is electrically unsafe and attach a 'Warning: product electrical unsafe' sticker in a visible location on the product. If the product plug contains a fuse, then the fuse should also be removed before returning to the owner.

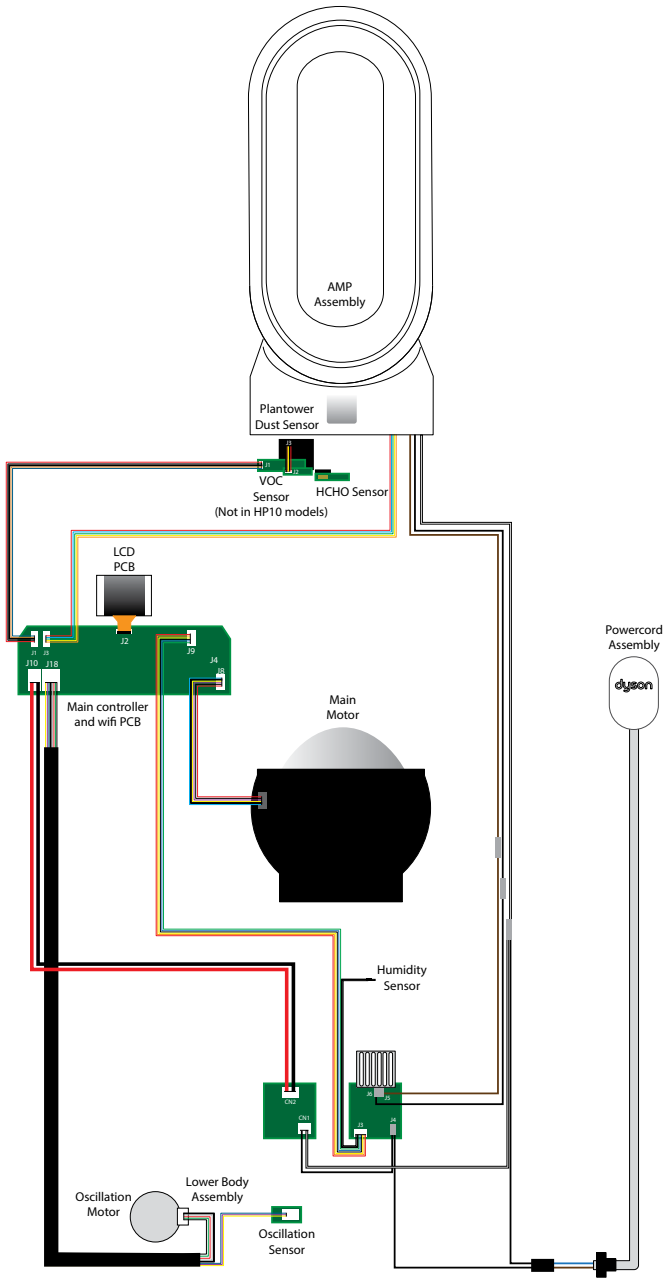
Wiring diagram (models with separate Main Control and Wifi PCBs)



Wiring diagram (models with no Wifi PCB)



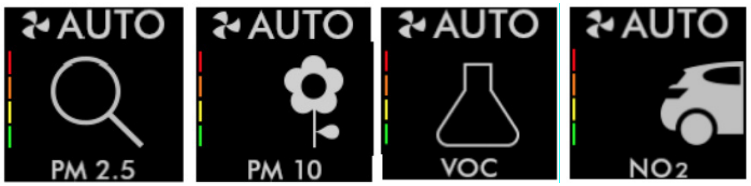
Wiring diagram (models with an integrated Main Control and Wifi PCB)



AQ displays during calibration

Prior to carrying out any repairs that are associated to fauly air quality readings, it is important to determine whether the product has a genuine fault or is simply calibrating.

When the product is new, the AQ sensors begin calibrating. This 1 hour process will affect the VOC & NO_2 readings for the entire 1 hour duration.* During this period the product will show PM2.5/PM10 data after a few seconds of turning on. The following screens will be displayed:



After the initial one hour calibration, it will take up to 20 minutes to calibrate the VOC and NO_2 sensors each time a product has been switched off at the wall or unplugged.
During this period the following screens will be displayed:*

After each calibration period the screens will now show readings as below:*

*Does not apply to HP10

Accessing the diagnostic menu

Diagnostic menu
Built into the products software there is an engineers diagnostic menu designed to enable the repair agent a quick diagnosis of the machines failure.
The menu is accessed by pressing a sequence of buttons via a standard remote control.

① 
Switch machine on.

② 
Press night mode button once.

③a 
Hold down flow mode direction button for 11 to 13 seconds.

③b HP10 only 
Hold down auto button for 11 to 13 seconds.

④ 
Immediately press the oscillation button once.

⑤ 

Engineering screen will appear.

⑥ 


Press i button to show fault code screen
(the screen above is an example).

Once you have finished accessing the engineering menu, press any button on the remote except the 'i' button to exit the diagnostic menu.

If the engineering screen does not appear press any button to reset and start again.
Repeat all steps ensuring the flow mode direction button or auto button (HP10 only) is pressed between 11 and 13 seconds as detailed in steps 3a and 3b.

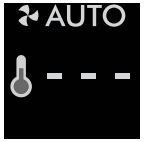
Diagnostic table

Faults codes will be displayed as per the following format: 00X-0X-0X-X.
In most cases it is only necessary to recognise the first three digits to determine the fault.

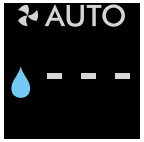
Fault code	Affected Part/s
Any codes starting with 002 except 002-02-01-2	Motor and Bucket assembly
002-02-01-2	Lower body service assy or Oscillation motor control harness
Any codes starting with 003	Main PCB assembly
Any codes starting with 004	LCD display service assembly or Main PCB assembly
Any codes starting with 005	Main PCB assembly
Any codes starting with 006	Main PCB assembly
Any codes starting with 007	Power supply unit or Main PCB assembly
Any codes starting with 008 except 008-07-01-2	Sensor PCB service assembly
008-07-01-2	HCHO sensorboard (SCO models only)
Any codes starting with 009 except 009-01-01-1	Wifi harness assembly (not in HP10 models)
009-01-01-1	Motor and Bucket assembly

Further information to the above table, the LCD display may show the screens below to help you diagnose the products fault.
These screens are displayed without having to go into the engineering screen.

1.

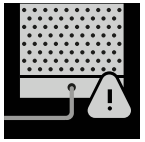


2.



3.


4.


5.


6.

7.

1. Air Quality (AQ) Sensor fault
2. Temp Sensor fault
3. Humidity Sensor fault
4. AQ Sensor fault
5. Wrong Power Supply Unit (PSU) inserted/PSU fault, advise to use the Dyson PSU that came with the machine.
6. Fault. Shown permanently if fatal fault. Shown temporarily if limited functionality fault. Will be necessary to access diagnostic menu to determine fault.
7. Formaldehyde Sensor fault*

*Does not apply to HP10 models

General information

Important: it is not currently possible to rectify a fault associated with the Wifi PCB.*
If the reason for the repair is due to a failure associated with the Wifi PCB, the machine will need to be exchanged.
If this situation changes, a further issue of this manual will be released providing full instructions.

WARNING:
Disconnect the machine from the electrical outlet at all times during repair and test. Failure to do so could result in electric shock or personal injury.

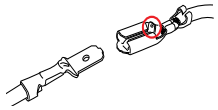
Ensure that at all times during the repair and testing of products that customers, pets, children and you are not exposed to any Live electrical supply.

Where this symbol is shown, ensure ESD (Electro Static Discharge) protection is used.

It is a mandatory requirement that when handling any product during any repair or refurbishment process that the following equipment is worn:

- FPP3 particle filter Face mask
- Safety gloves
- Safety glasses
- Safety shoes

Some female terminal clips used in these products contain a locking mechanism. The release pip will need to be activated before separation from the male terminal can occur.



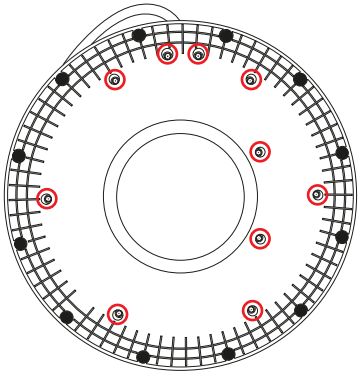
All screws used are Torx unless otherwise stated.

Wire colours may vary between territories.

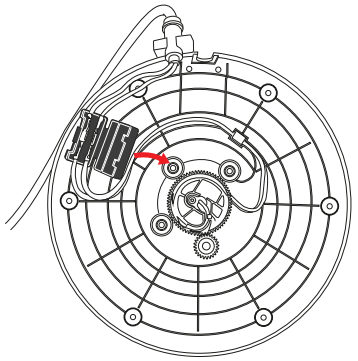
Recommended tools to repair:

Torx T-15 screwdriver (magnetic if possible)
Torx T-10 screwdriver (magnetic if possible)
Torx T-8 screwdriver (magnetic if possible)
Thin flat bladed screwdriver
Long nosed pliers

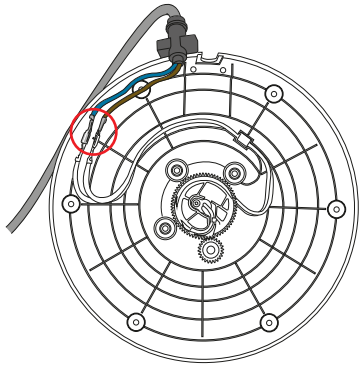
*Does not apply to HP10 models



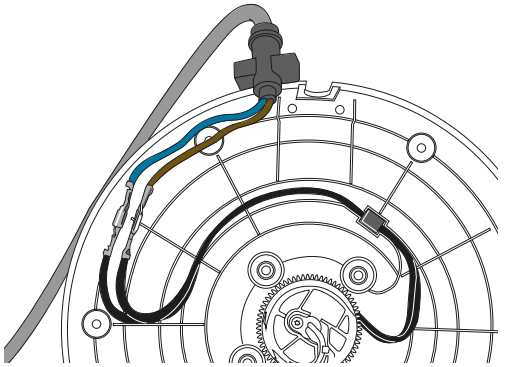
01 Remove the 10 T-10 screws in the base of the product and remove the Baseplate.



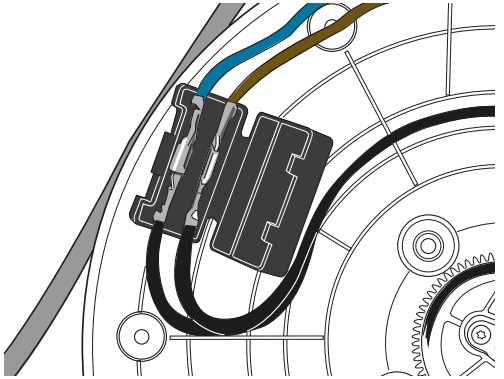
02 Open the Connector insulation block.



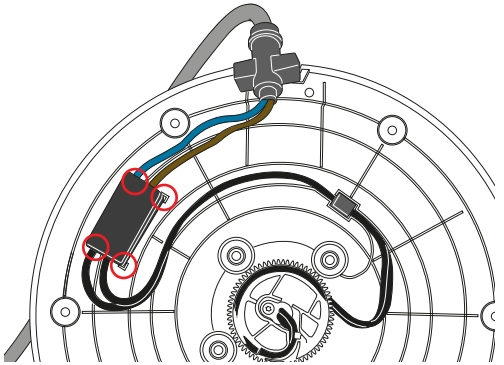
03 Disconnect the Powercord Live and Neutral termminals.
Remove the Powercord.



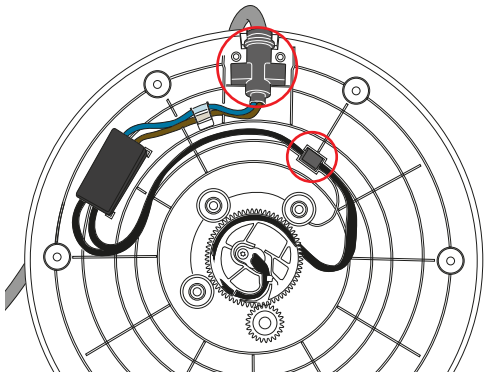
04 Connect the Live and Neutral wires on the new Powercord.



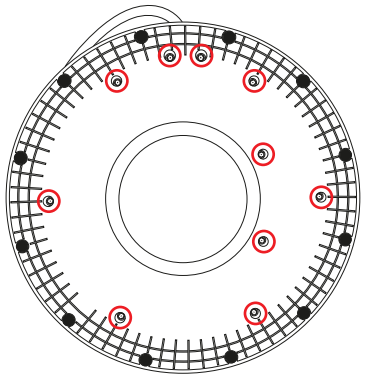
05 Ensure the wires are located correctly within the Connection insulation box.



06 Close the Connection insulation box and locate into the retaining details on the Lower housing assembly.



07 Locate the Powercord grommet into the Lower housing assembly. Ensure all other wiring is still retained within the provided features.

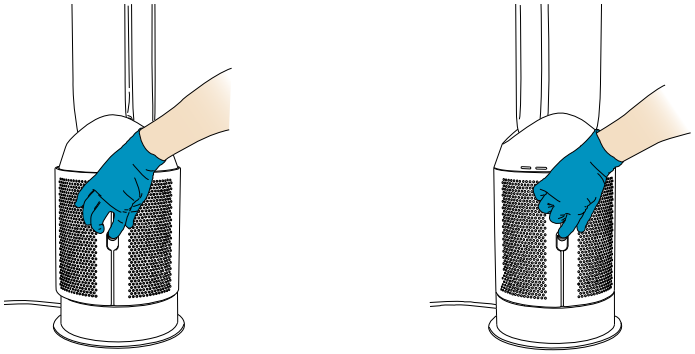


08 Locate the Baseplate and fit the ten T-10 screws.

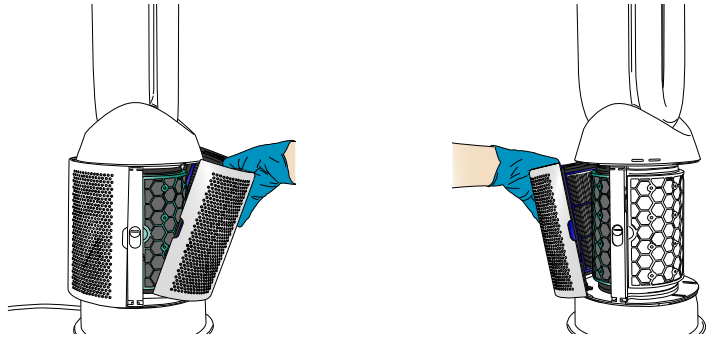
Repair notes

Full dismantle

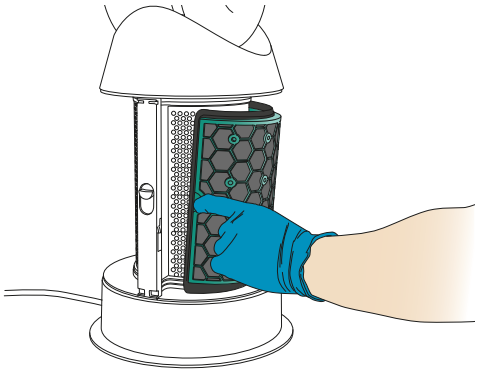
WARNING:
Disconnect the machine from the electrical outlet at all times during repair and test. Failure to do so could result in electric shock or personal injury.



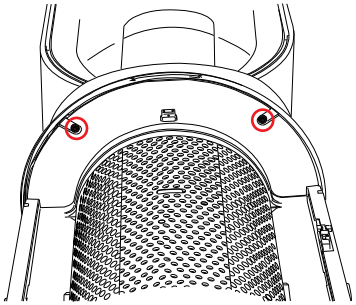
09 Press the left and right filter release buttons on either side of the product.

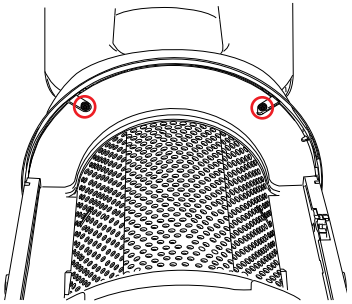


10 Remove the two shrouds.

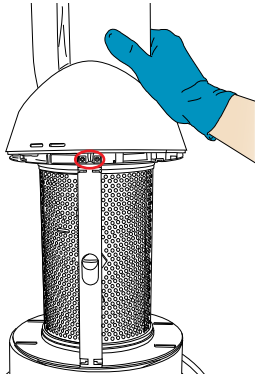


11 Remove the two SCO filters (not applicable to all models).

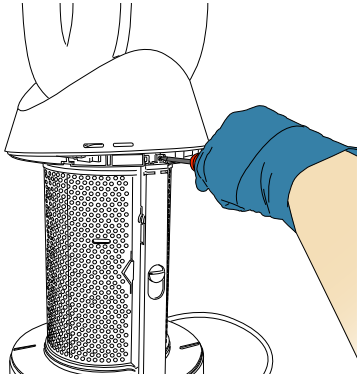




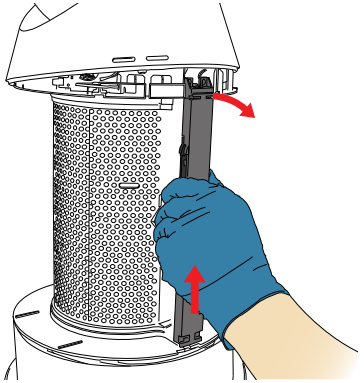
12 Turn the machine upside down.
Remove the four 16mm T-10 screws from the front and rear of the product that attach the Amp assembly to the Main body.



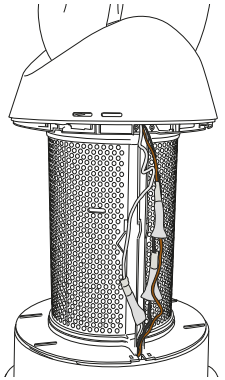
13 Slightly lift the left hand side of the AMP to reveal two T-8 screws.



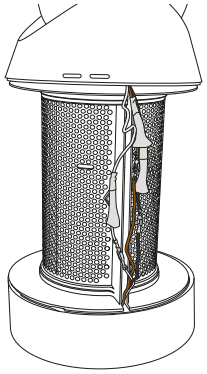
14 Remove the two T-8 screws from the Filter release assembly.



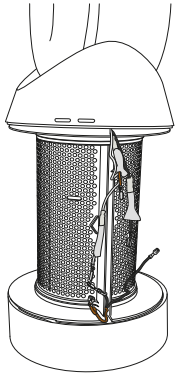
15 Lift up and slide the Filter release assembly away from the product.



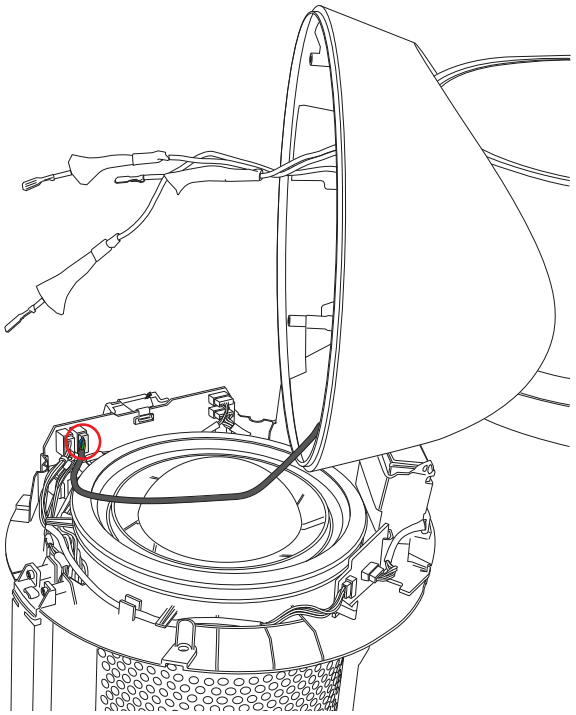
16 Release the Amp wires from inside the channel running down the side of the Main body.



17 Peel off the Glass cloth tape. Slide the Glass cloth sleeves up the three wires to reveal the connectors.

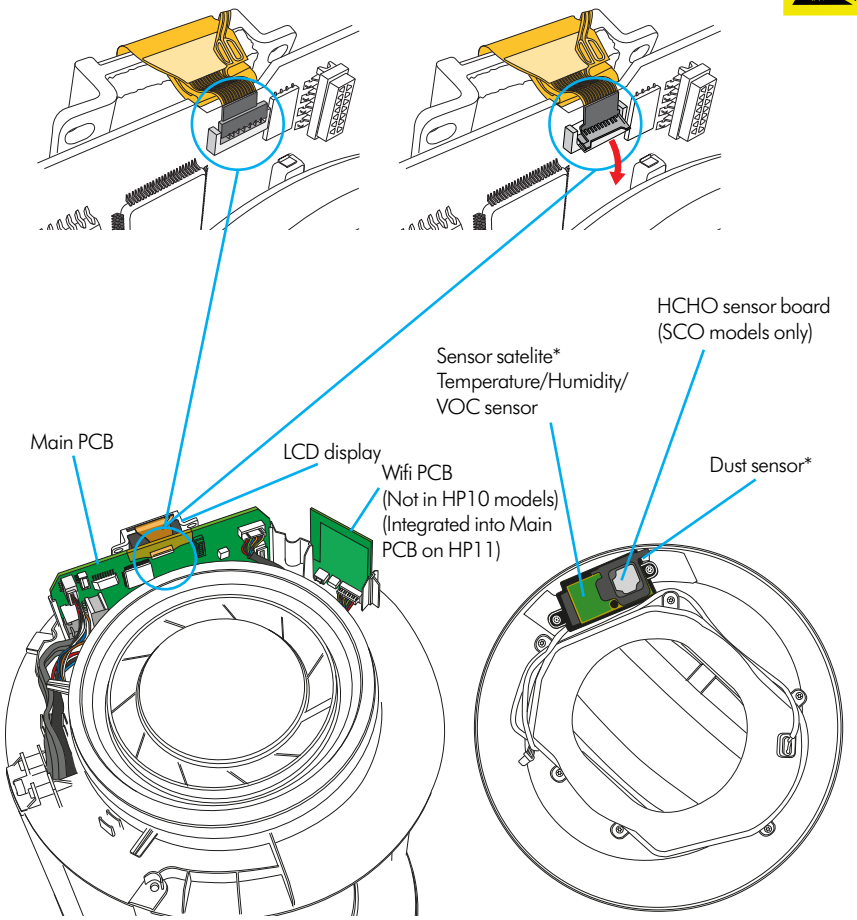


18 Disconnect all three terminals.

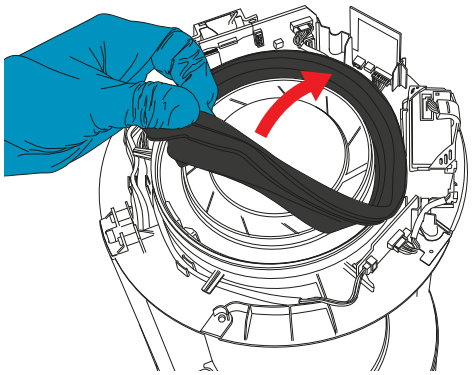


19 Carefully lift the Amp assembly from the Main body.
Note: The Amp will still be connected by the Flow mode motor loom.
Release the loom from the retainers and disconnect it from the Main PCB assembly.
For AMP fitting instructions go to page 41 step 71.

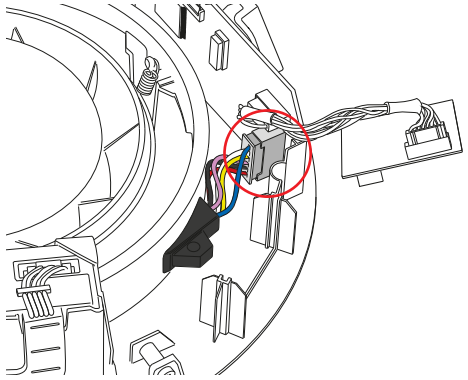
Note: the LCD display is secured with a locking mechanism that will need to be opened before removing/replacing.



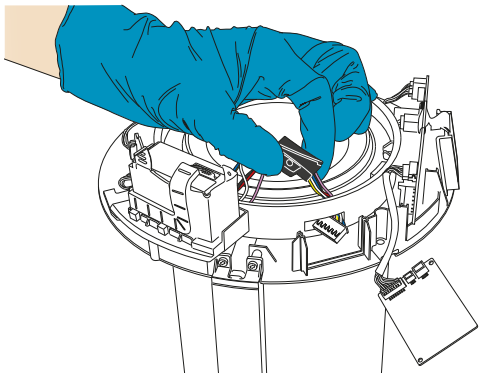
20 This diagram is to identify all PCB's within the Main body assembly and AMP assembly.
If the reason for the repair is to replace any of the PCB's or sensors, this can be carried out at this stage.
Disconnect the affected PCB or sensor. Fit a new PCB or sensor ensuring the looms are retained as shown in diagram above.
Note: any machines requiring a WiFi PCB replacement cannot be repaired until further notice.
The machine will have to be exchanged.
For Amp fitting instructions go page 41 step 71.
* Offered together as one assembly 'Sensor PCB service assembly'.



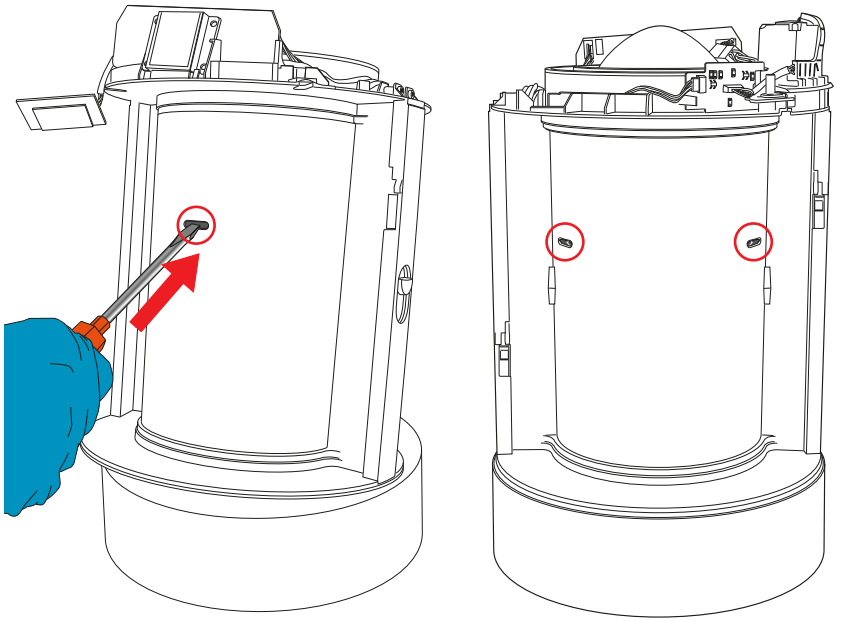
21 Remove the Motor to AMP seal.



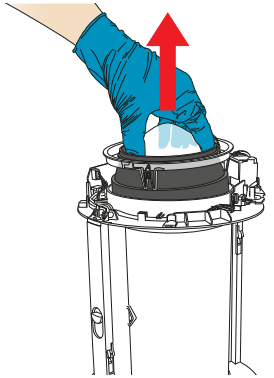
22 Disconnect the Motor loom from the Main PCB assembly.
Note: for ease the WiFi PCB can be removed from it's holder.



23 Release the Motor loom grommet from the main body and guide the connector through the hole.

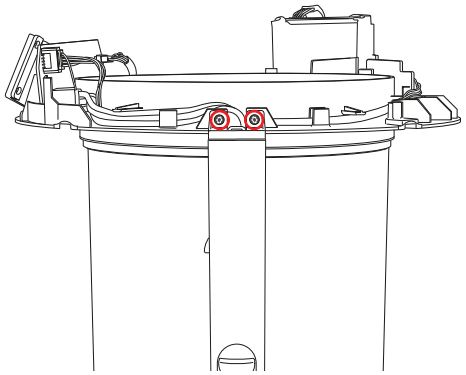


24 Carefully release the three Motor bucket catches from around the main body.

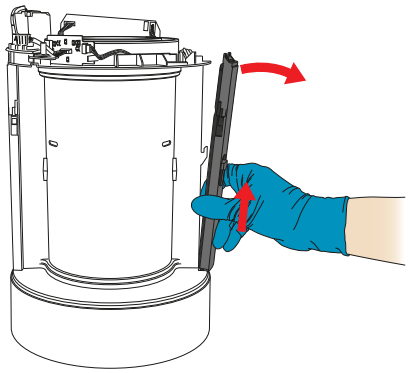


25 Carefully lift the Motor and bucket assembly out of the main body.

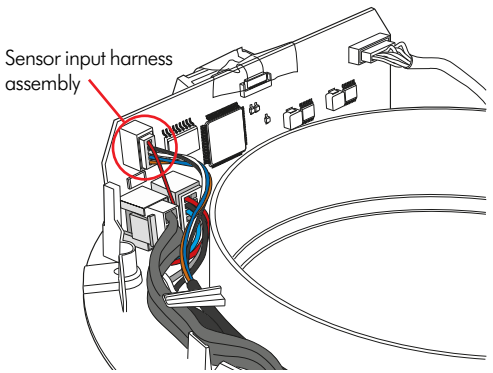
For Motor and bucket fitting instructions go to page 32 step 53.
If the reason for the repair is to replace the Lower body assembly or any other replaceable components proceed to the next step.



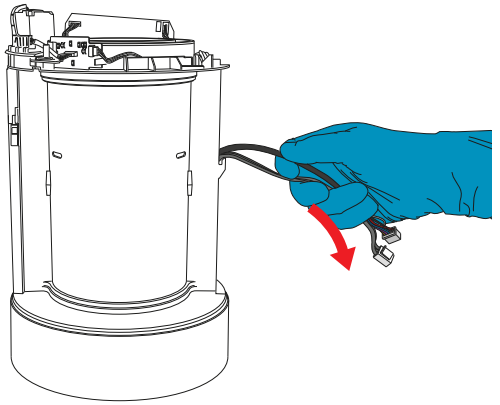
26 Remove the two 7mm T-8 screws holding the right handside Filter catch assembly.

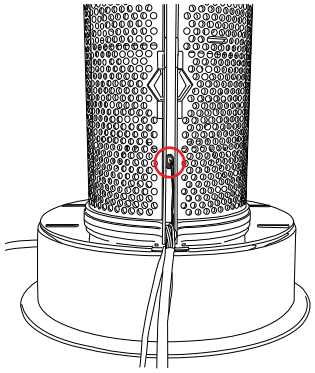


27 Lift the Filter catch assembly up and away from the Main body.

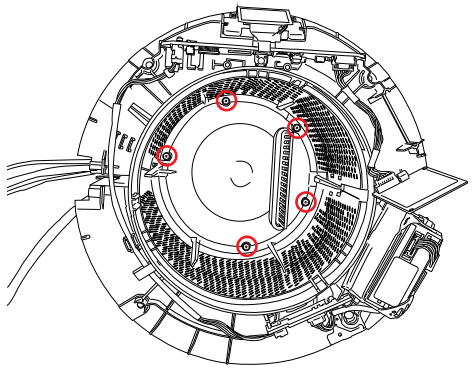


28 Disconnect the Oscillation and Main power connectors from the Main PCB.
Note: for ease, first disconnect the Sensor input harness assembly.

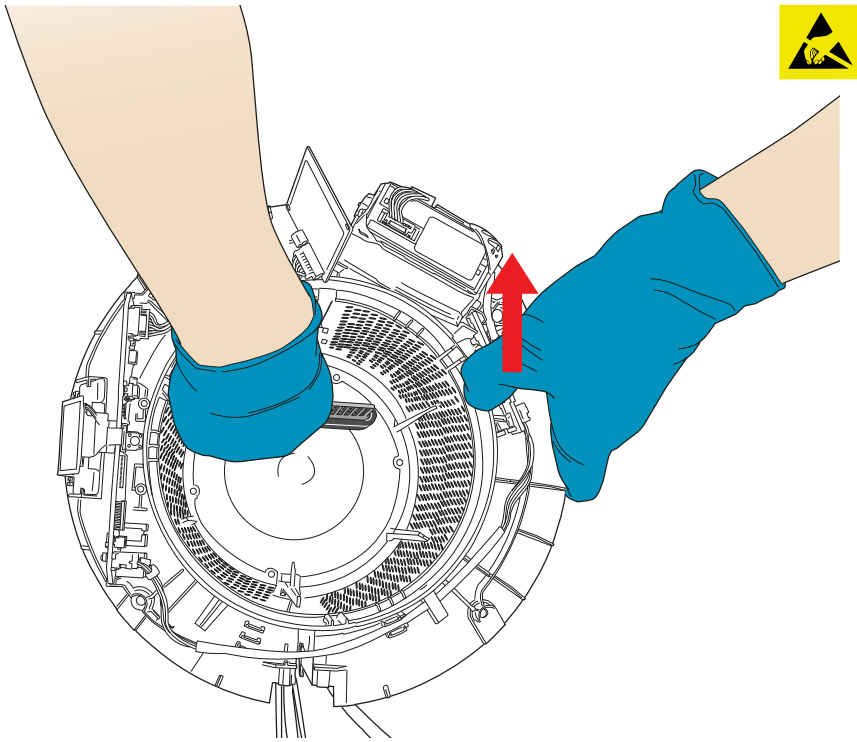




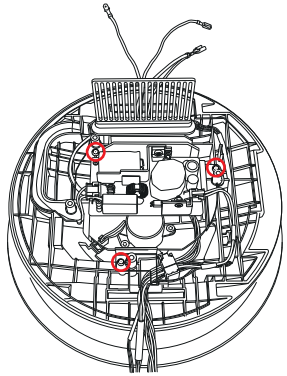
29 Carefully release the three looms from the retainers in the channel in the side of the main body.
IMPORTANT: there will be a Humidity sensor still attached to the Main body.
Carefully remove the sensor.



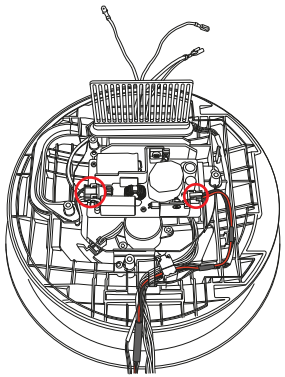
30 Remove the five 12mm T-15 screws from the inside of the main body.



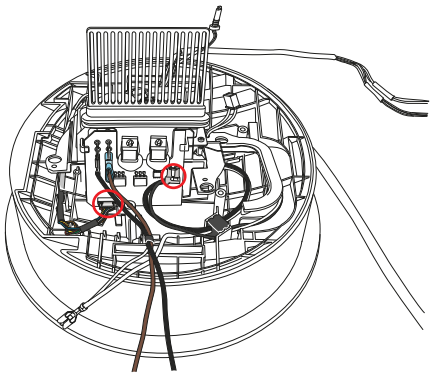
31 **Note:** Once the screws have been removed the Main body will only be held in place by the grommet around the Heat sink.
Hold the Heat sink firmly and Lift the main body away from the Oscillation housing.



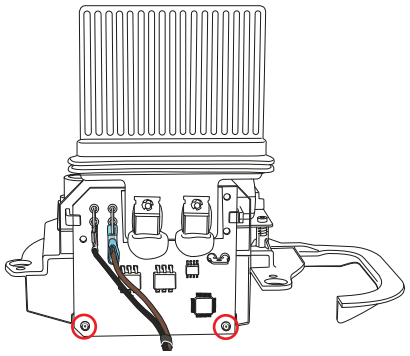
32 Remove the three T-8 screws.



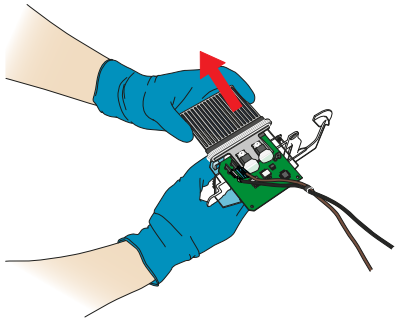
33 Disconnect the two highlighted looms.



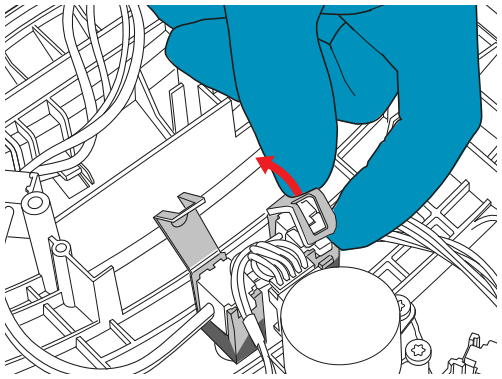
34 Disconnect the highlighted terminal and loom.



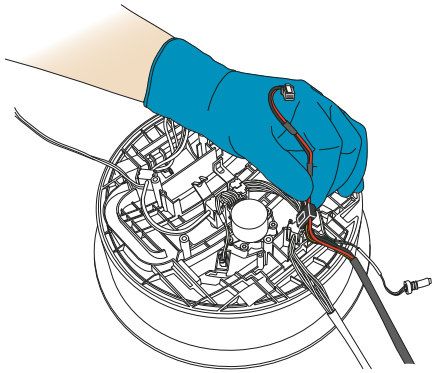
35 Remove the two T-10 screws from the Triac PCB assembly.



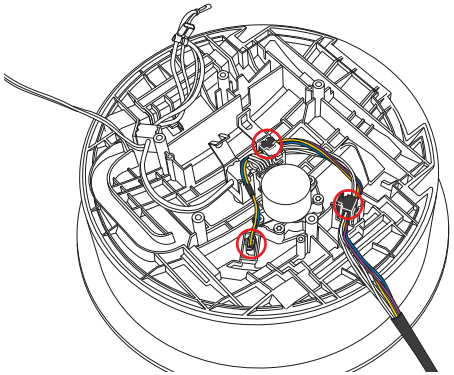
36 Carefully slide the Triac PCB away from the PSU platform service assembly.



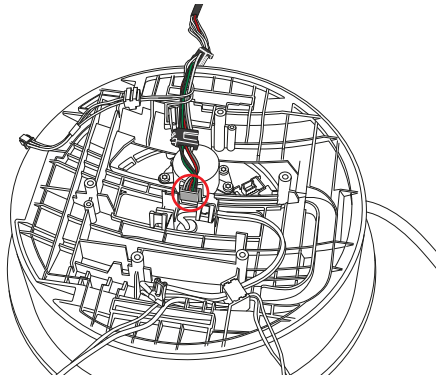
37 Open the two grommet clips.



38 Remove the previously disconnected loom.

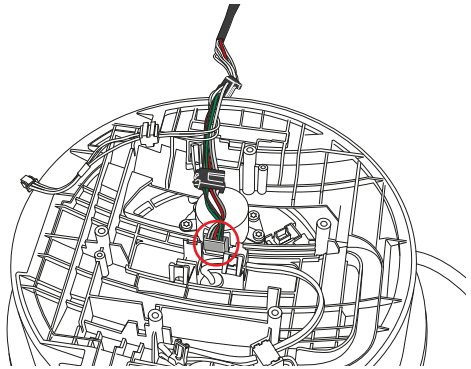


39 Disconnect the IR sensor loom from the IR sensor.
Remove the sensor loom from the Lower housing assembly.

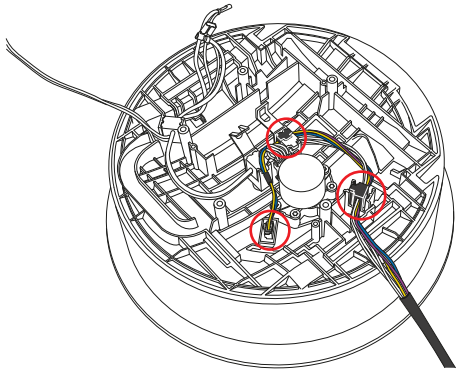


40 Remove the Oscillation motor loom.

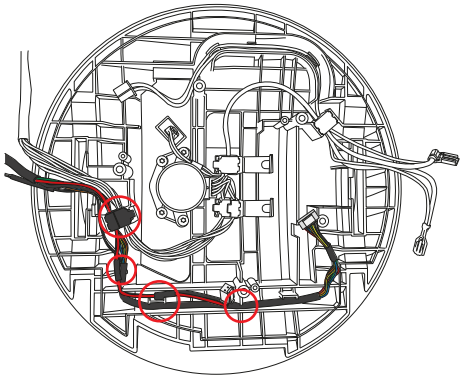
WARNING:
Disconnect the machine from the electrical outlet at all times during repair and test. Failure to do so could result in electric shock or personal injury.



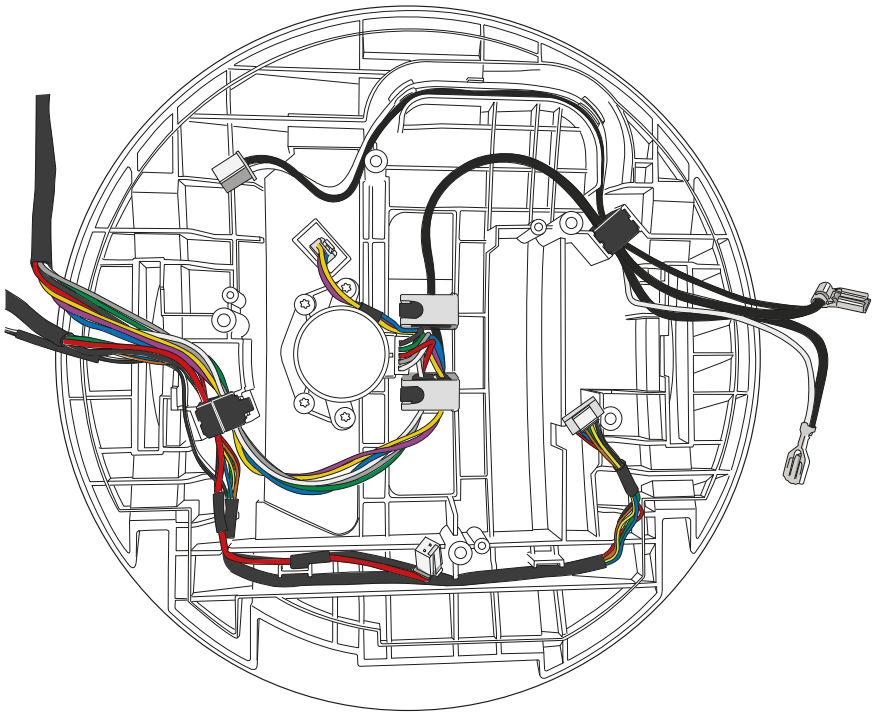
41 Refit the Oscillation motor loom.



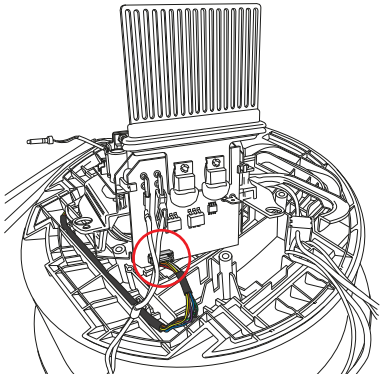
42 Connect the IR sensor loom to the sensor.
Locate the Grommets into the Grommet clips.



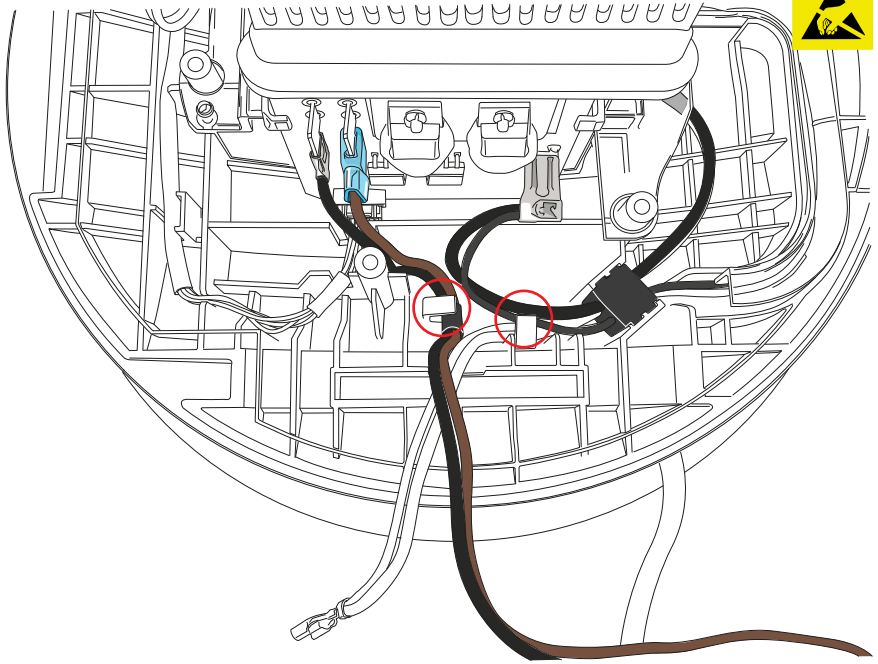
43 Ensure the looms are retained within the channel.



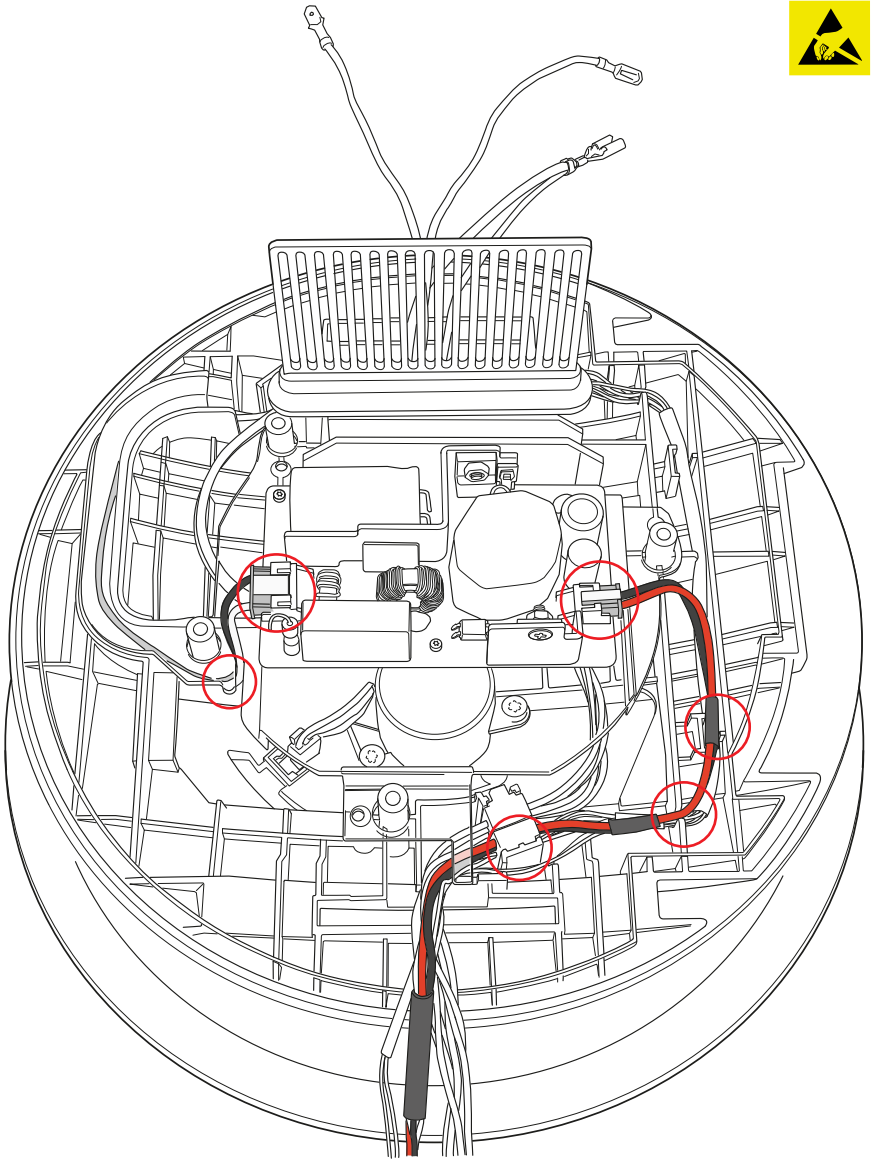
44 Before continuing please ensure that all Looms and Grommets are retained as shown.



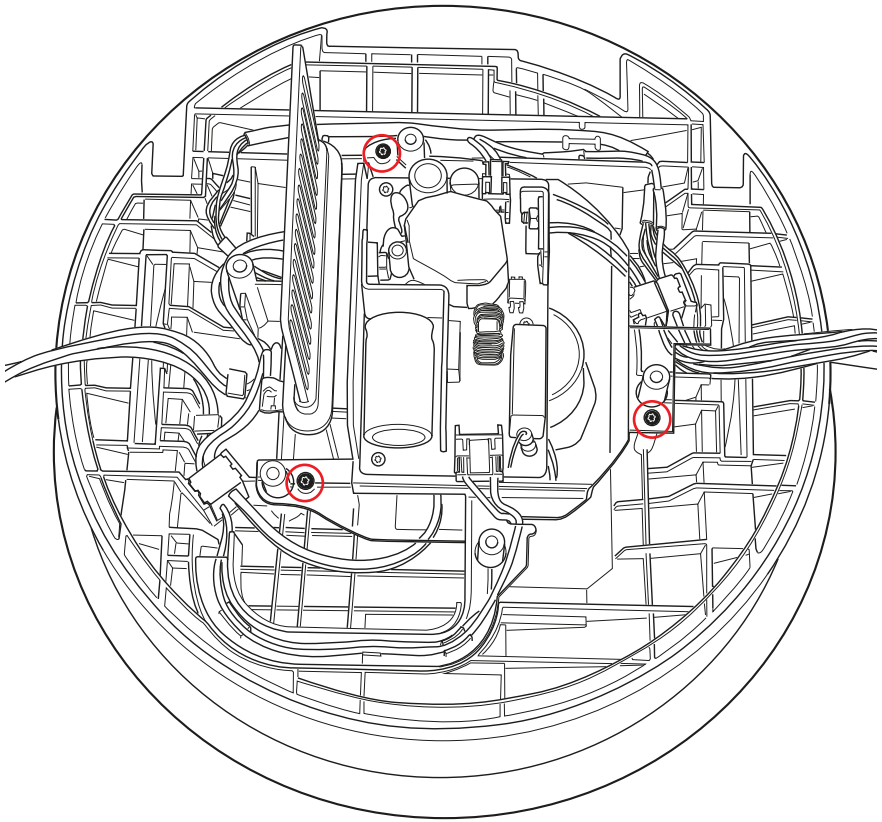
45 Connect the highlighted loom to the Triac PCB.



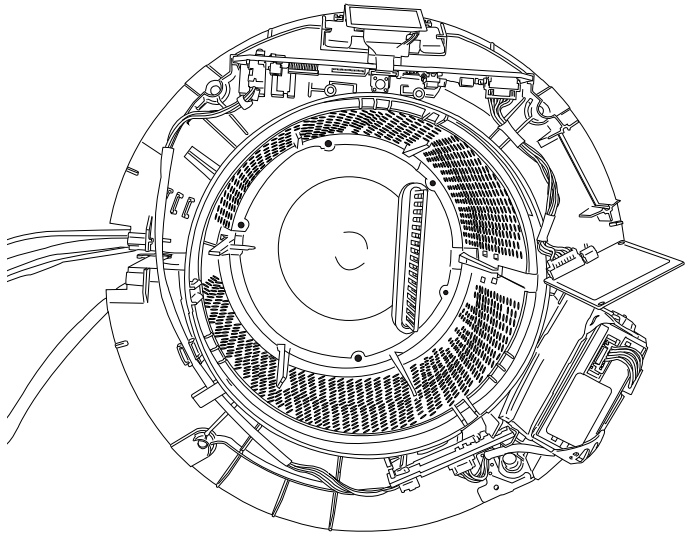
46 Connect the Live Main power wires to the Triac PCB assembly.
Dress the Live heater element wires and the Live Main power wires within the retainers provided.



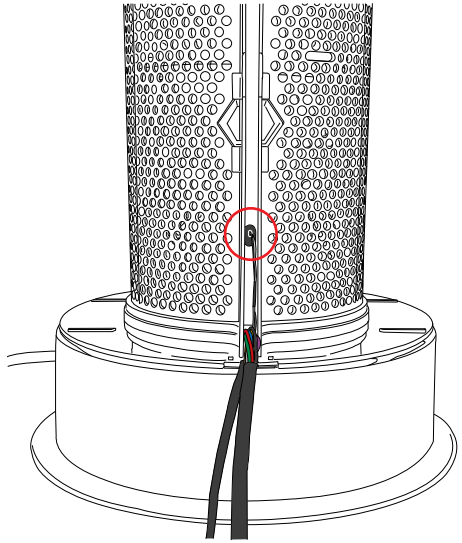
47 Connect and retain the highlighted looms where shown.



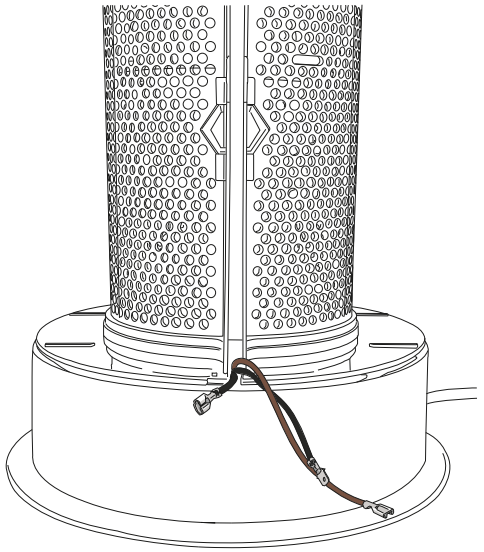
48 Fit the three T-8 screws.



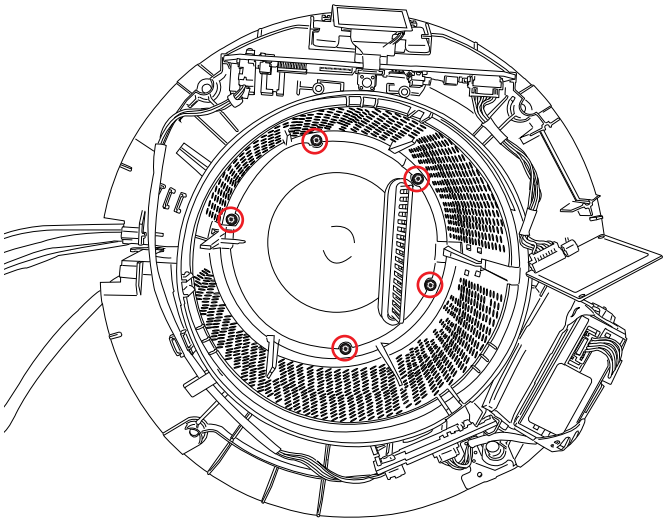
49 Carefully lower the Main body onto the Lower body ensuring the heat sink protrudes through the gap in the base of the Main body.



50 Locate the Humidity sensor into the opening in the side of the Main body. Ensure the looms are free and not trapped under the Main body.



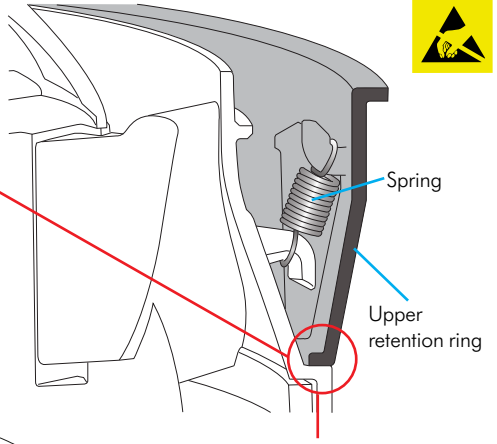
51 Ensure the AMP wires are also free and not trapped under the Main body.



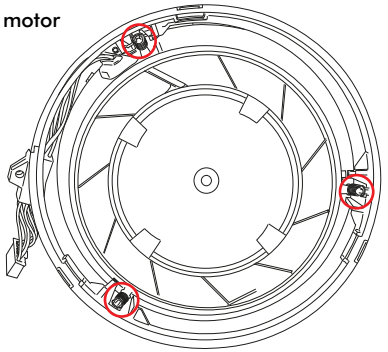
52 Fit the five T-10 screws to secure the main body.

Cross section view of Upper retention ring and spring positions

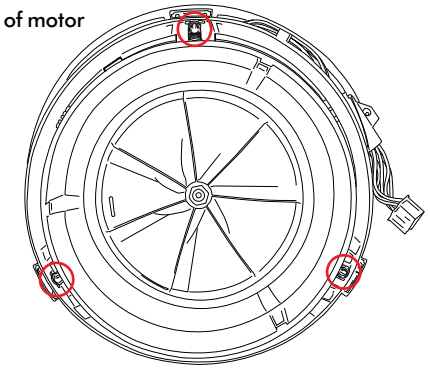
Important: during shipping/transport the Upper and Lower retention rings and springs may detach. Before fitting the Motor and bucket assembly the Upper and Lower retention rings have to be seated on their corresponding ledges on the motor bucket and the six springs attached as shown. If this is not carried out the Motor and bucket assembly will not fit correctly into the main body.



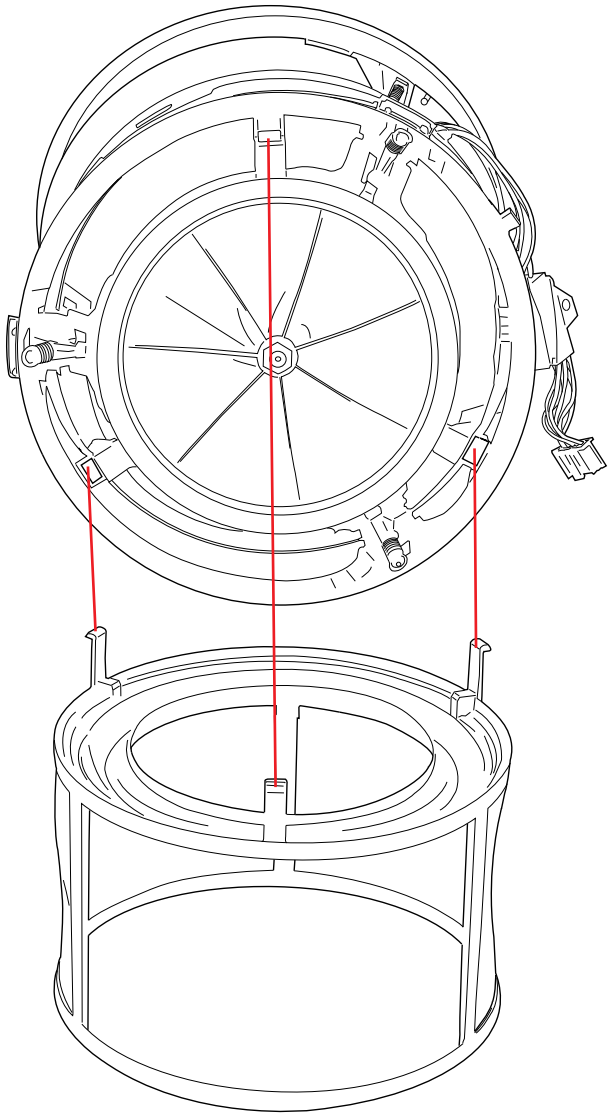
Top view of motor



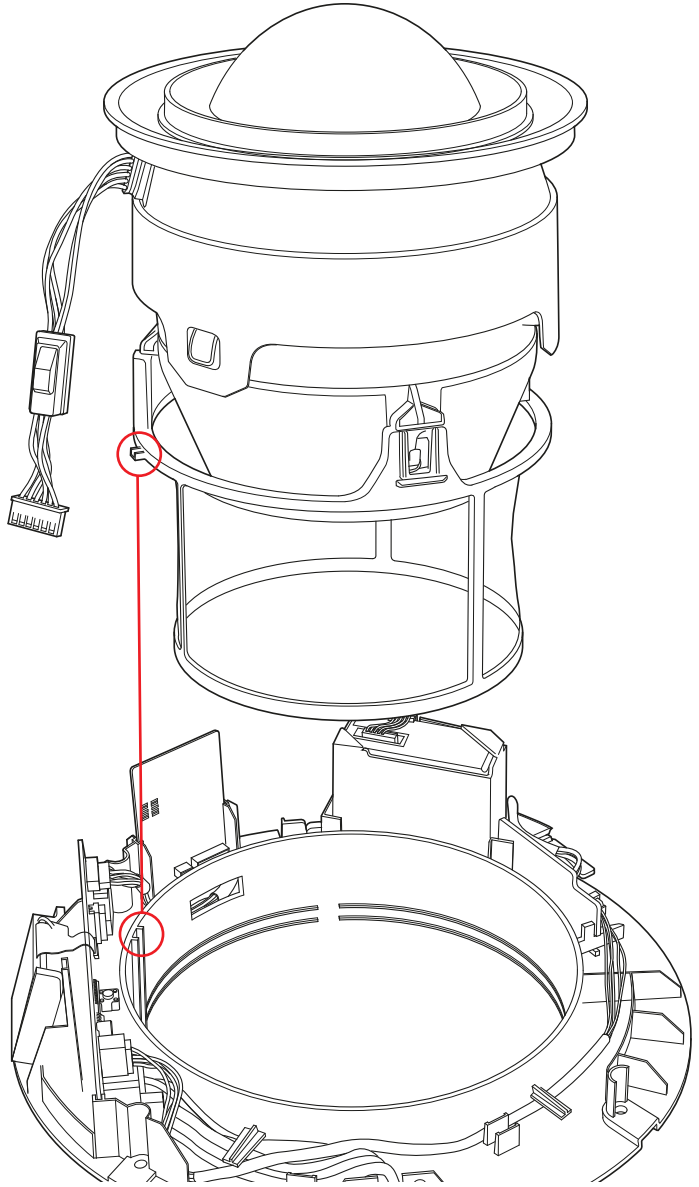
Bottom view of motor



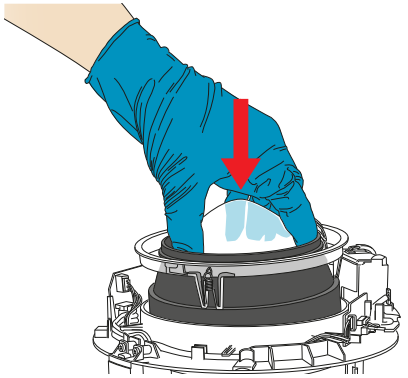
53 **Important:** ensure both the Upper and Lower retention rings and all six tension springs are located correctly around the top and bottom of the motor bucket assembly. Failure to do so will result in a failed repair.



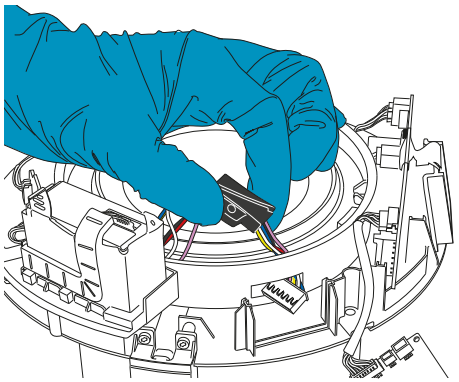
54 When fitting a new Motor and bucket assembly the old (or a new) impeller inlet shroud will need to be fitted.
Line up the three hooks around the inlet shroud with the three holes around the Motor and Bucket assembly.



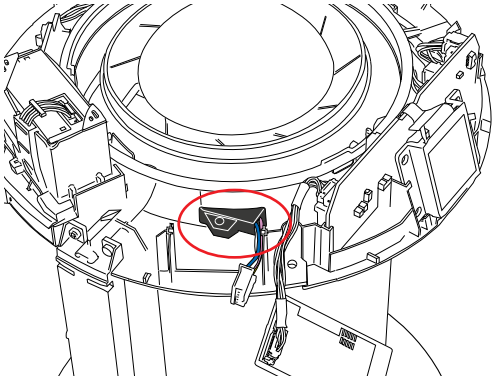
55 Line up the detail on the side of the Motor and bucket service assembly with the groove on the inside of the Main body.



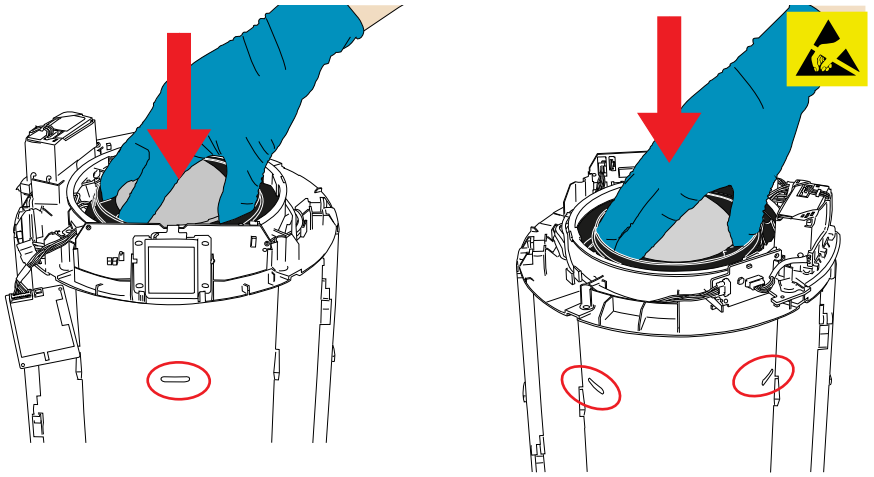
56 Carefully lower the Motor and Bucket assembly into the Main body.



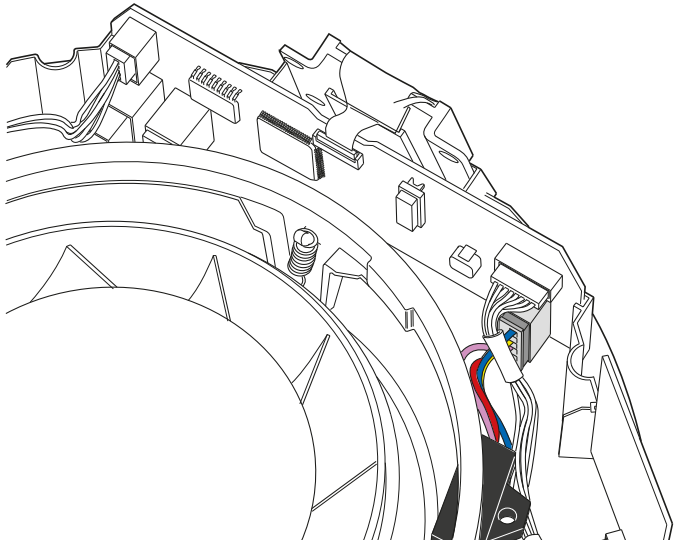
57 Feed the Motor loom connector through the hole in the Main body.



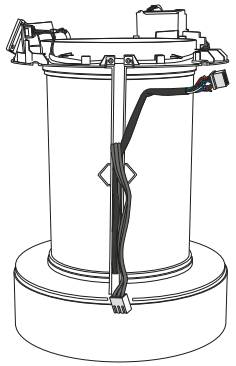
58 Ensure the motor loom grommet is orientated and seated correctly into the Main body.



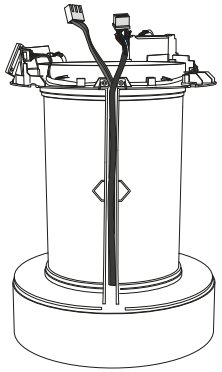
59 Push down firmly on the top of the Motor bucket service assembly until the three catches around the motor bucket have securely clipped into the Main body.
Note: the Tension springs and Upper and Lower retention rings can come disconnected during this process. If this does occur the catches will not clip into the Main body. Remove the motor bucket service assembly and re-connect the springs and rings (page 32 step 53).



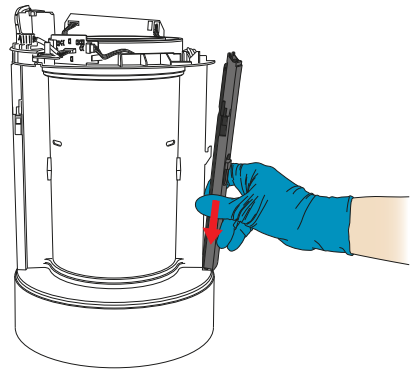
60 Connect the motor loom to the Main PCB.



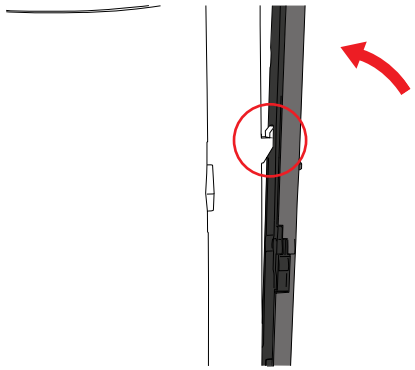
61 Ensure the looms are retained within the channel.



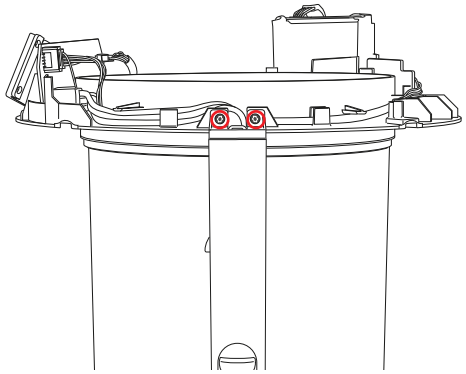
62 Ensure the looms are retained securely all the way up the channel.



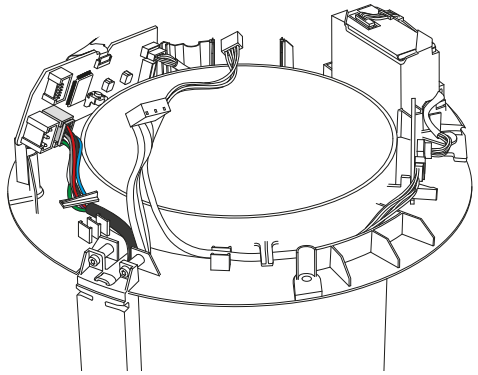
63 Locate the bottom of the Filter catch assembly into the bottom of the channel in the Main body.



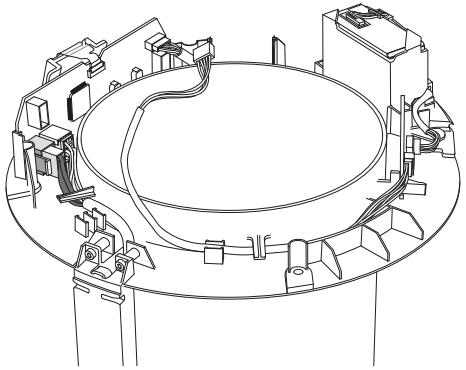
64 Ensure the hook details on the main body are located within the holes in the Filter catch assembly.
Then firmly push the catch assembly down until a click is heard.



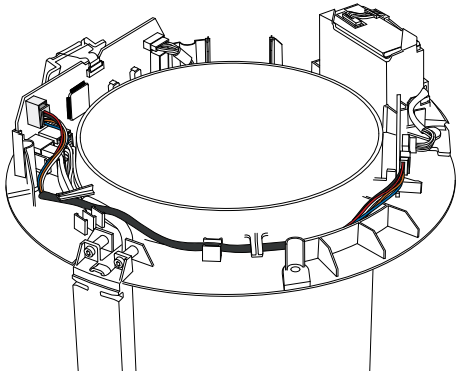
65 Fit the two 7mm T-8 screws.



66 Connect and dress the Oscillation Motor control harness to the Main PCB as shown.

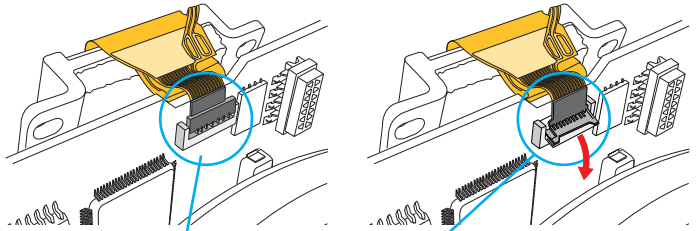


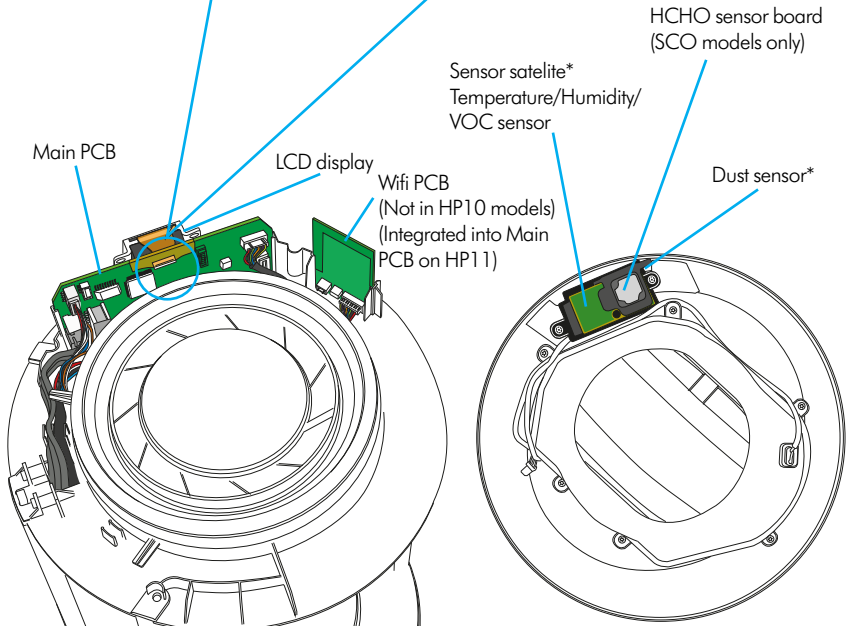
67 Connect and dress the Main power loom to the Main PCB as shown.



68 Connect and dress the VOC and Dust sensor loom to the Main PCB as shown.

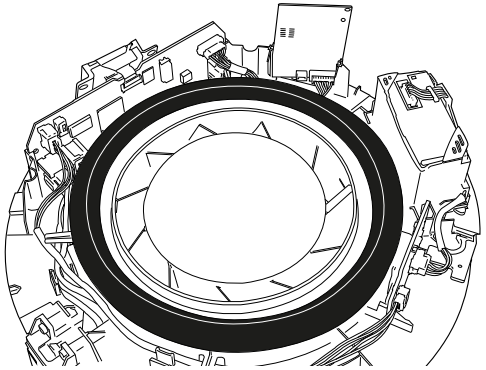
Note: the LCD display is secured with a locking mechanism that will need to be opened before removing/replacing.



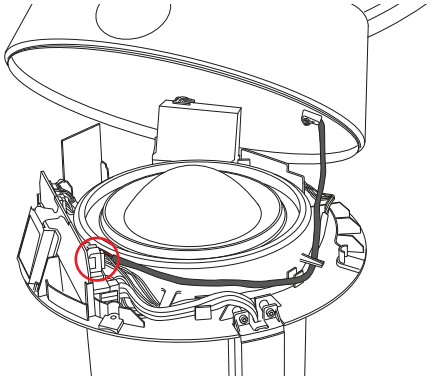


Main Body Assembly AMP Assembly

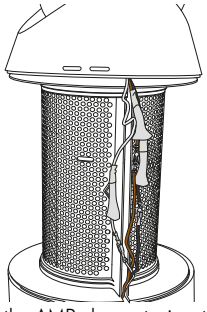
69 This diagram is to identify all PCB's within the Main body assembly and AMP assembly.
If the reason for the repair is to replace any of the PCB's or sensors this can be carried out at this stage.
Disconnect the affected PCB or sensor. Fit a new PCB or sensor ensuring the looms are retained as shown in diagram above.
Note: any machines requiring a WiFi PCB replacement cannot be repaired until further notice.
The machine will have to be exchanged.
For Amp fitting instructions go page 41 step 71.
* Offered together as one assembly 'Sensor PCB service assembly'.

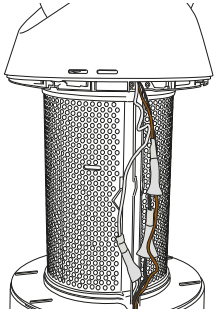


70 Fit the Motor to Amp seal, ensuring it is seated correctly around the Motor.

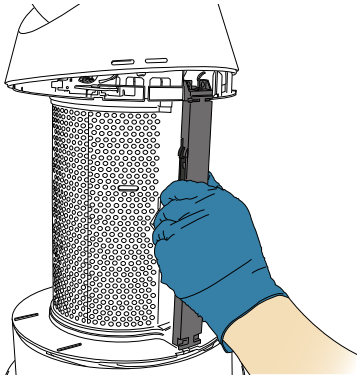


71 Connect the Flow motor loom to the Main PCB.
Dress the Flow motor loom into the retainer provided around the Main body.

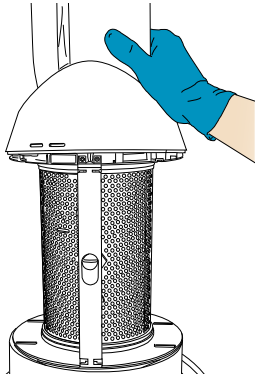




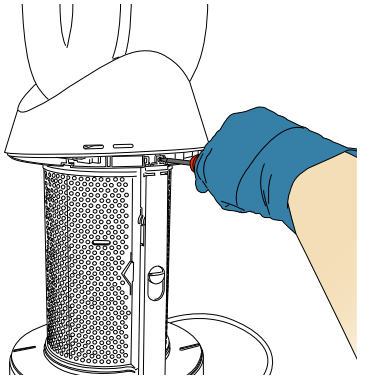
72 Connect the AMP element wires to the corresponding wires.
Cover the terminals with the glass cloth sleeve and fix with the glass cloth tape.
Dress the wires and terminals neatly into the channel.



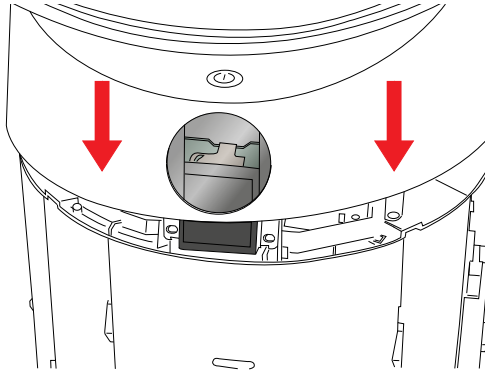
73 Locate the bottom of the Filter catch assembly into the bottom of the channel in the Main body.



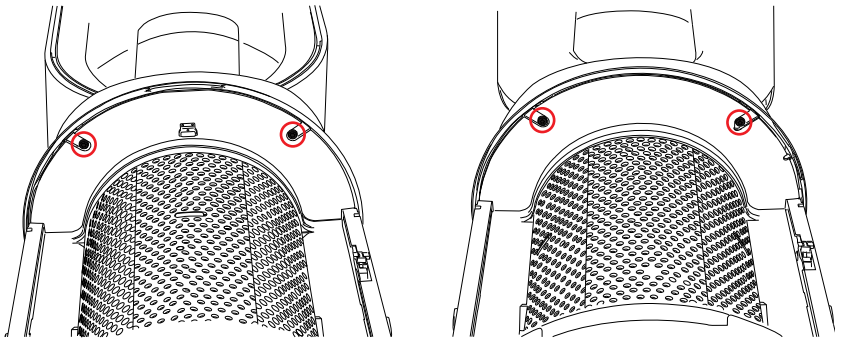
74 Slightly lift the AMP assembly to reveal the two screw bosses.



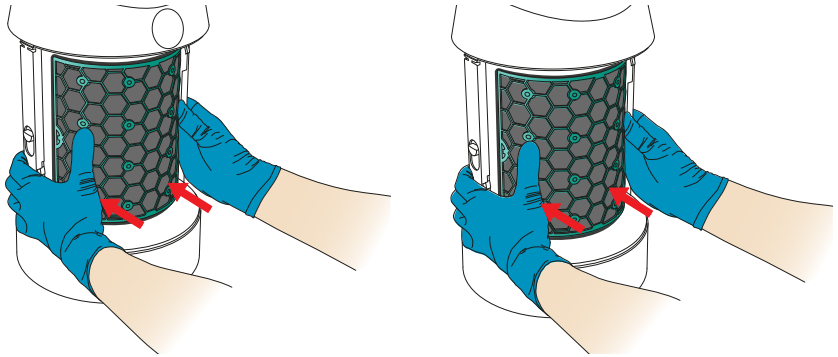
75 Fit the two 7mm T-8 screws.



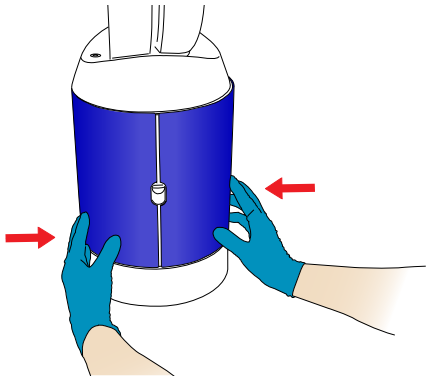
76 Locate the AMP assembly onto the Main body, ensuring the Amp is facing the correct way.



77 Fit the four 16mm T-10 screws to the front and rear of the product.

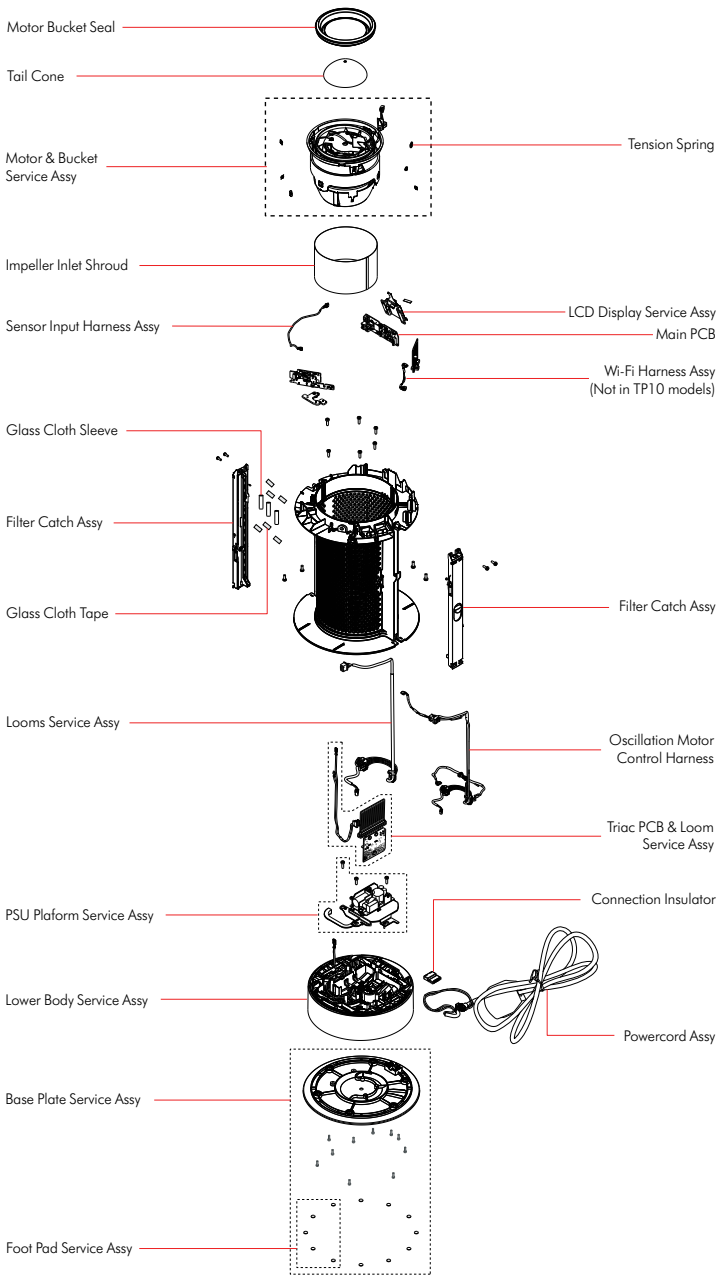


78 Locate the two SCO filters ensuring they click into position (not applicable to all models).

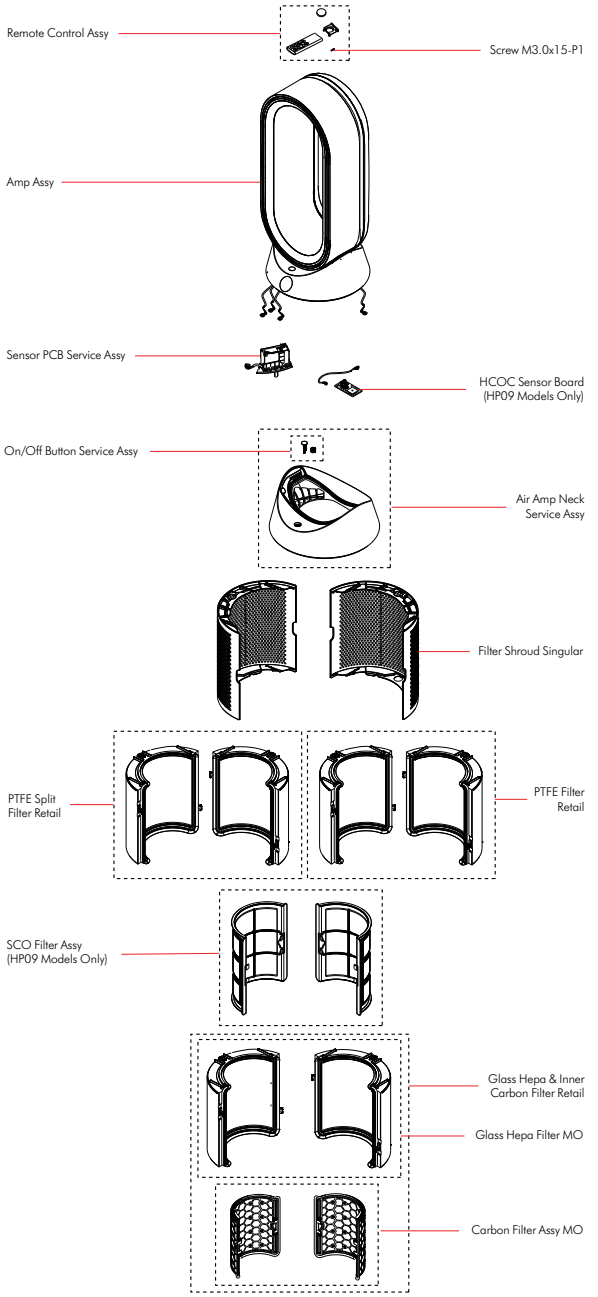


79 Locate the two shrouds.

Parts diagram
Main body assembly



Parts diagram
Amp and Filter assemblies

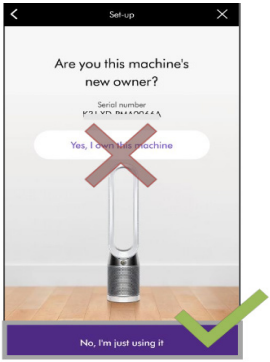


Software updates

How to update the product software

Any necessary product software updates should be facilitated via the MyDyson™ app.
The app can be downloaded via the App store or Google Play.

Open the app and follow the on-screen instructions to create a new account, pair the machine and select your Wifi network.



IMPORTANT:
When asked 'Are you this machine's new owner', tap on 'No, I'm just using It'.
DO NOT tap on 'Yes, I own this machine', as this will remove the ownership from the customer, delete the customer's settings and return the product to it's Out-Of-Box (OOB) settings.

Tap on the Settings icon on the top right of the screen.
Tap on 'Your machine's settings'. Scroll down to the Software section. Turn on the 'Auto-update software' button.
If the current software version is outdated, the product will automatically download the latest software version from the cloud.

Once any updates are completed, tap on 'Remove machine' to delink the product from your mobile device.