dyson

Issued December 19

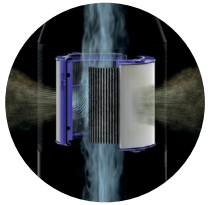
Contents

This manual is written specifically for Dyson trained engineers and covers the full PH01 and PH02 range. The service instructions assume that the engineer has the approved tools and test equipment with them.

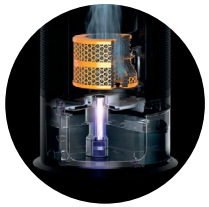
Product overview
Features and benefits

Circulates
Air Multiplier technology projects 350 litres of air per second, cooling you when required.

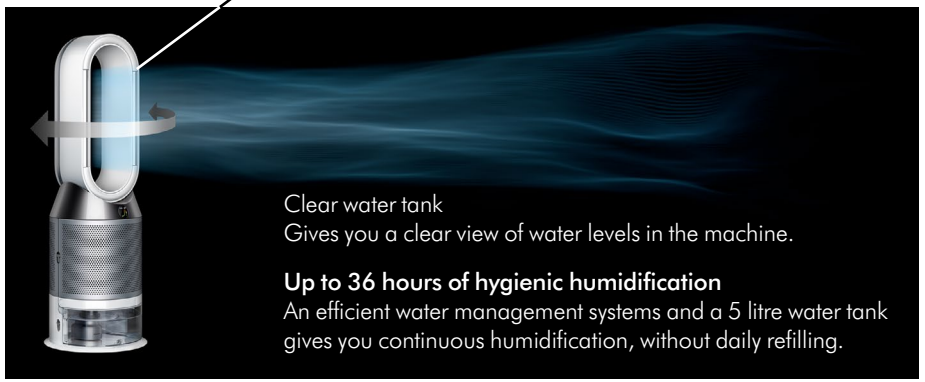
Purifies
Carbon HEPA filters capture gases and 99.95% of PM0.1.



Humidifies
UV cleanse technology kills 99.9% of bacteria in the water.



Diffused air valve mechanism
Redirects air through the rear aperture, for purification without cooling.



Clear water tank
Gives you a clear view of water levels in the machine.

Up to 36 hours of hygienic humidification
An efficient water management systems and a 5 litre water tank gives you continuous humidification, without daily refilling.

Sensor detects and display pollutants and humidity levels
A unique algorithm processes input from each sensor and activates the machine, to capture pollutants, humidity, and project cleaner air.

Captures gases and ultra fine particles
The sealed filtration system combines an activates carbon filter to remove gases and a sealed HEPA filter to capture 99.95% of ultra fine particles.
PH01 machine comes with Combination filters.
PH02 comes with permanent Cryptomic filters and Combination filters.

Anti-bacterial evaporator
Silver strands are woven into 3D air mesh of 6mm intervals.
They help prevent bacteria from growing on the evaporator.

Destroys potentially harmful bacteria
Dyson Ultraviolet Cleanse technology exposes every drop of water to an ultraviolet light. This kills 99.9% of bacteria.

Reflective PTEE tube
Made from a highly reflective material. It mirrors UV light up and down the tube, to kill bacteria.

The UI screen shows different error icons according to the machine's status. Many of these are temporary or can be corrected by carrying out a hard reset and/or a software update. To hard reset, switch off the machine and unplug the mains supply for 20 secs, then plug the machine back in and switch it back on.

1. Temp Sensor fault

2. Humidity Sensor fault

3. Air Quality (AQ) Sensor fault

4. Wrong Power Supply Unit (PSU) inserted/PSU fault

5. Fault. Carry out a Hard reset. If this doesn't fix the issue check 'Fault codes' (pages 5 - 6)

6. Broken pump column. Replace the Pump column assembly

7. Drip tray overflow. Carry out a deep clean cycle (pages 6 -7). If this doesn't fix the issue check 'Fault codes' (pages 5 - 6)

8. Too cold. Displayed when ambient temperature drops below 5°c and there is water in the tank

9. Pump rotor failure. Replace the Pump column assembly

10. Clean cycle not complete. Repeat the clean cycle (pages 6 -7) and allow to run until completion

11. Water tank empty. If not empty, replace the Pump column assembly

Accessing the diagnostic menu

Diagnostic menu
As well as the UI error symbols, built into PH01 and PH02's software is an engineers diagnostic menu designed to enable the repair agent a quickly 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.

③ 

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

④ 

Immediately press the oscillation button once.

⑤ 

Engineering screen will appear.

⑥ 


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

Once you have finished accssing 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 button is pressed between 11 and 13 seconds detailed in step 3.

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.

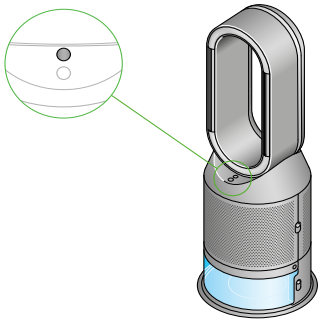
Fault code	Affected Part/s
Any codes starting with 002 except 002-02-01-2	Motor and Bucket assembly
002-02-01-2	AMP assembly
Any codes starting with 003	Main PCB assembly
Any codes starting with 004	LCD display service assembly or Main PCB assembly
Any codes starting with 005	Main PCB assembly
Any codes starting with 006	Main PCB assembly
Any codes starting with 007	Power supply unit, DC inlet assembly or Main PCB assembly
Any codes starting with 008	Dust sensor service assembly or Sensor input service assembly or Sensor PCB service assembly
Any codes starting with 009 except 009-01-01-1 and 009-01-02-1	Wifi PCB*, Wifi harness assembly, Heater PCB, Heater harness or Humidifier PCB
009-01-01-1 009-01-02-1	Motor and Bucket assembly
Any codes starting with 010	Main PCB assembly
Any codes starting with 011	Humidifier PCB, AMP assembly, Evaporator tray sensor, Water tank harness or Pump column

*The Wifi PCB is a non-replaceable part.

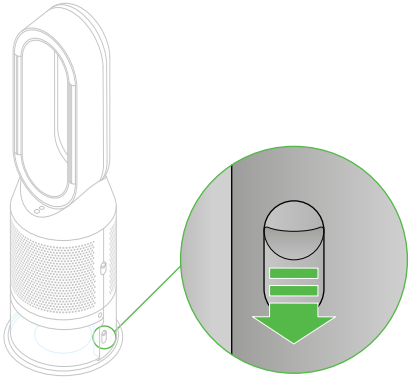
Deep cleaning the machine

PH01 and PH02 have a 'self cleaning' cycle built in. This is to reduce limescale build up. In normal use the machine will show an alert when it needs to carry out a Deep clean cycle. If connected to the Dyson Link app, you will receive a notification message. If not using the Dyson Link App, the LCD screen on the machine will alert you and the Deep clean cycle button will light up. To cancel the Deep clean cycle at any point, press and hold the Deep clean cycle button for five seconds.

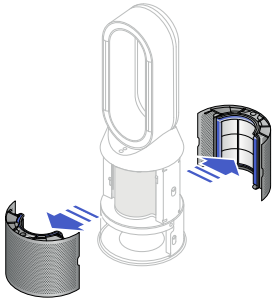
Important: do not turn off or unplug the machine as the cleaning instructions will appear on the LCD screen.



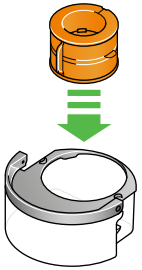
Press the Deep clean cycle button on the front of your machine and your instructions will be shown on the LCD screen.



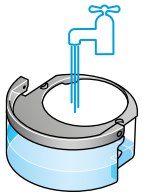
Push down the Water tank release buttons on the sides of your machine.
Slide the water tank out of your machine and unclip the cap.



Put the shrouds to one side as you carry out the Deep clean cycle.



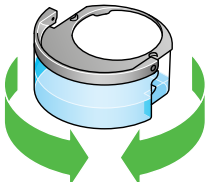
Remove the evaporator from your machine, place it in the water tank and refit the cap.



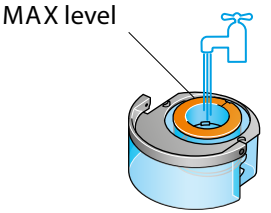
Carry the water tank by its handle to the tap.
Remove the cap and evaporator.
Fill the water tank halfway to the Max level with cold tap water.

Deep cleaning the machine

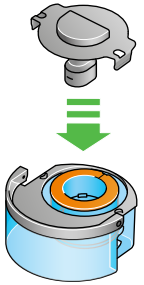
Measure out 150g of citric acid and place it in the water tank.



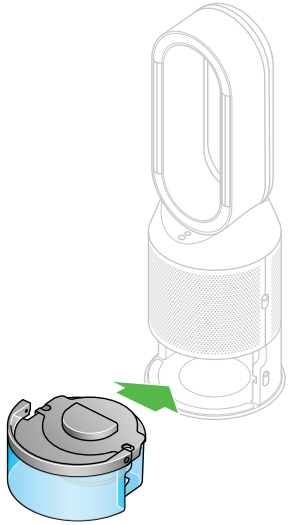
Agitate gently until all the citric acid has dissolved.



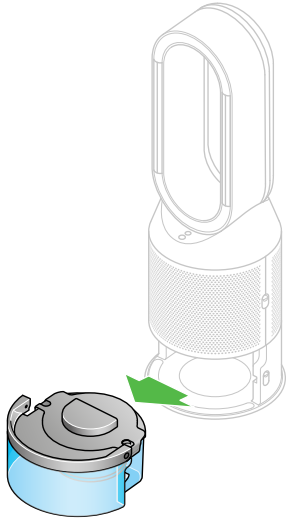
Place the evaporator in the water tank. Fill the water tank to the Max level with cold tap water.



Replace the cap and secure the cap clips in place. Wipe off any excess water to avoid drips.



Slide the water tank into your machine until it clicks securely in place. When prompted by the LCD screen, press the Deep clean cycle button. The Deep clean cycle will start and the LCD screen will show a countdown timer.



When the LCD screen shows the Deep clean cycle is complete, push down the water tank release buttons on the sides of your machine. Slide the water tank out of your machine. Carry the water tank by its handle to the tap.

Electrical safety testing

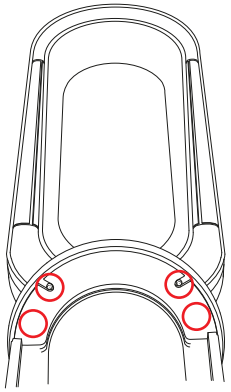
The following tests must be performed prior to and upon completion of all repairs to Dyson products and before any functional checks.
You must ensure that a full visual inspection of the product is completed prior to repair.

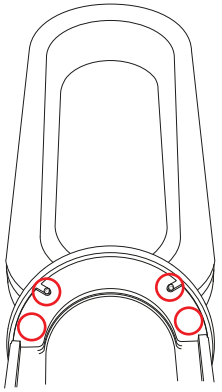
Ensure that at all times during the repair and testing of products that customers, pets, children and you are not exposed to any Live electrical supply.

These tests are vital to avoid any possibility of personal injury to the end user.
Tests should be performed using the 500 volt DC setting of a locally compliant insulation tester.

Insulation test points:

Test directly onto the eight T-10 screws in the Main body.
Note: the filters will need to be removed to gain access to the screws.





Test results

An insulation test reading of >2 MΩ is acceptable.
A reading of below 2 MΩ is considered unsafe and further investigation, rectification and testing must be completed before the product is used. The following components must be visually inspected.

- Dust sensor loom and AMP assembly loom.

If you cannot repair a product with an insulation test reading of below 2MΩ the product is left un-repaired please indicate on your paperwork/hand held device that the product is electrically unsafe and attach a '**WARNING**': product electrically unsafe' sticker in a visible location on the product.

Deep cleaning process

It is advised that a Deep clean cycle is carried out after every repair, see pages 6 - 7 for full instructions.

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.

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

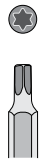
- FPP3 particle filter Face mask
- Safety gloves
- Safety glasses
- Safety shoes

Where this symbol is shown ensure ESD protection is used.

Wire colours may vary between territories.

Recommended tools to repair the product.
All screwdrivers should be magnetic if possible.

Torx T-8 screwdriver



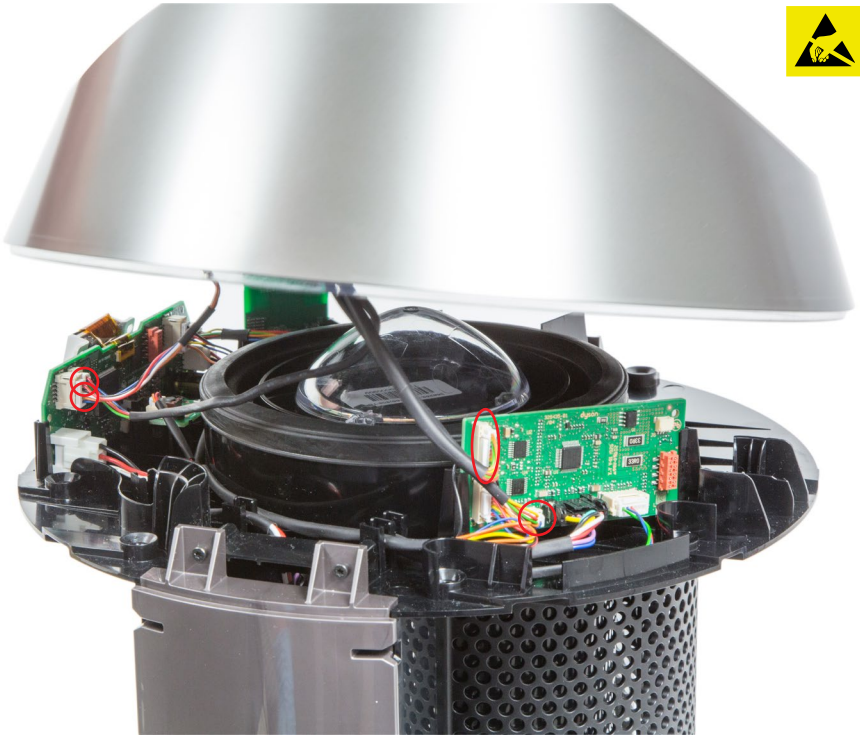
Torx T-15 screwdriver

01 Press the release catches on either side of the filter housings. Remove the filter Housing and Filter assemblies from the product.
Note: if the product is a Cryptomic variant, it won't be necessary to remove the Cryptomic filter.

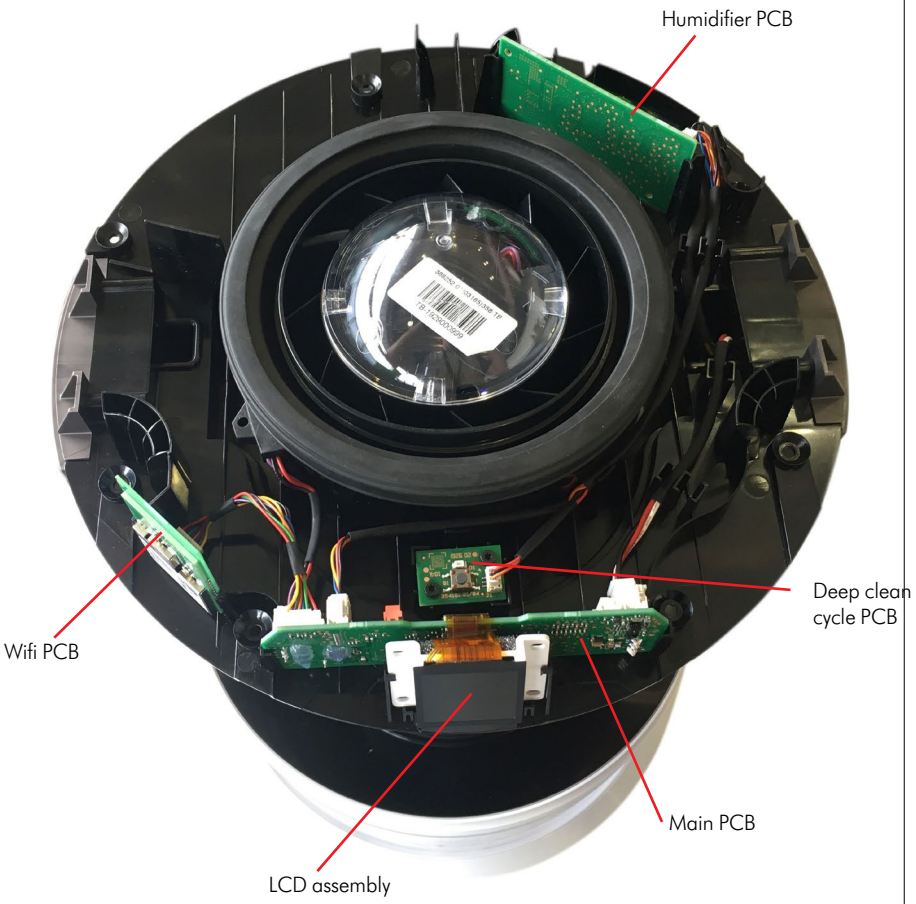
02 Remove the Evaporator assembly. Shut the Evaporator door.

03 Remove the eight T-15 screws under the Amp service assembly to the front and rear of the product.

04 Carefully lift off the Amp service assembly.
Important: the Amp assembly will be connected by four looms.



05 Carefully disconnect the four looms.



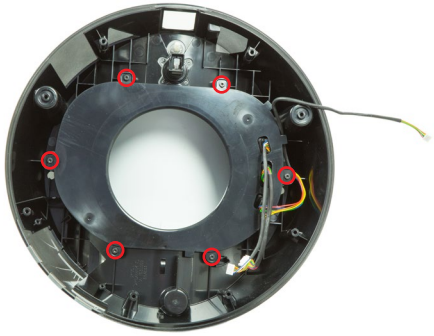
06 At this point any of the PCB's can be replaced
Note: the Dust sensor and Dust sensors PCB are within the AMP Service assembly.
For removal instructions of these parts continue to the next step.
Note: not all PCBs are available as spare parts at launch. Always check Dyson Central for availability.

07 Remove the two T-8 screws holding the dust sensor and sensors PCB service assembly into the base of the amp. Carefully unclip the Dust sensor to main controller loom. Remove the Dust sensor and Sensors PCB service assembly.

For Amp service assembly fitting instructions go page17 step16.
For Lower body service assembly - removal go to page 25 step 31.
For Motor and Bucket service assembly - removal go to page 36 step 56.
If the reason for the repair is to replace the Air amp neck service assembly or the On/Off button service assembly, continue to the next step.

08 To remove the Power button, lever out the two arms and push out the Button, spring and Foam.
To replace the Air Amp Neck Service assembly go to the next step.

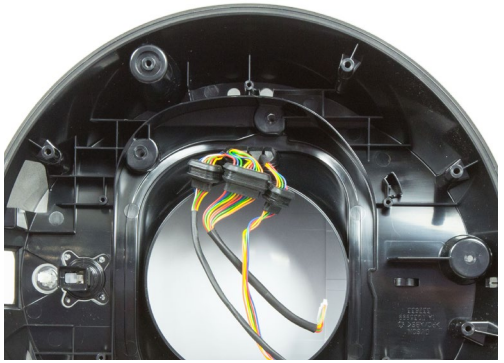
09 Push the three grommets through the neck plate.



10 Remove the six T-8 screws.

11 Remove the plate from the AMP neck assembly.

12 Remove the Four T-15 screws.



13 Release two of the three looms from the large Grommet.

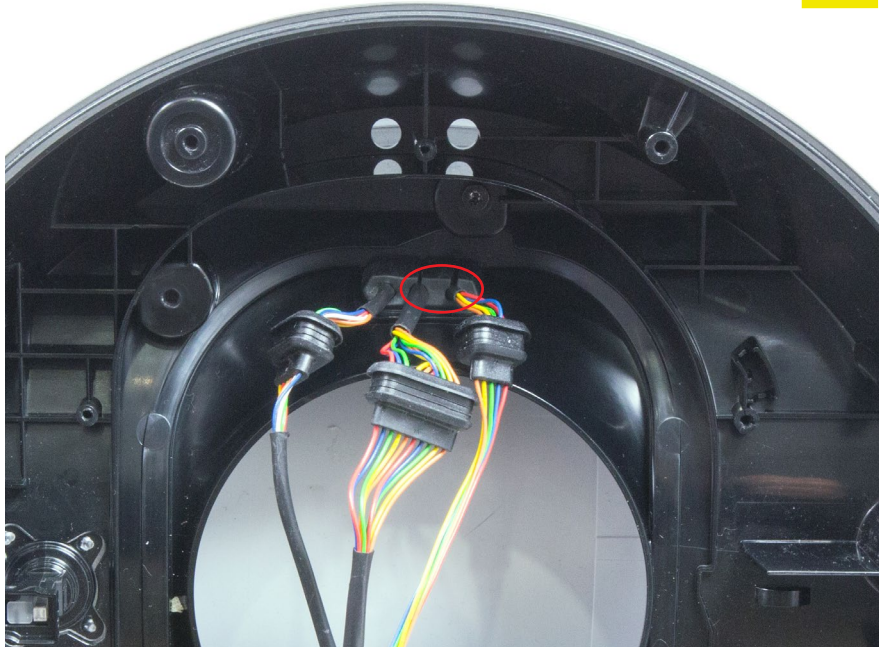
14 Carefully push the large single grommet through the hole in the AMP neck assembly.

15 Carefully feed the Grommets and looms through the AMP neck assembly.

AMP Service Assembly - fitting

If the Air Amp Neck Service assembly was previously removed, continue to the next step.
If the reason for the repair is to replace the entire Amp Service assembly go to page 20 step 23 - 30.

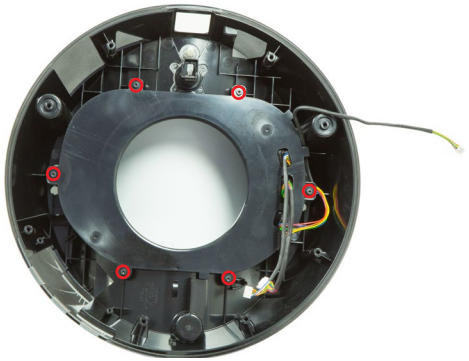
16 Feed the three looms through the hole in the neck.



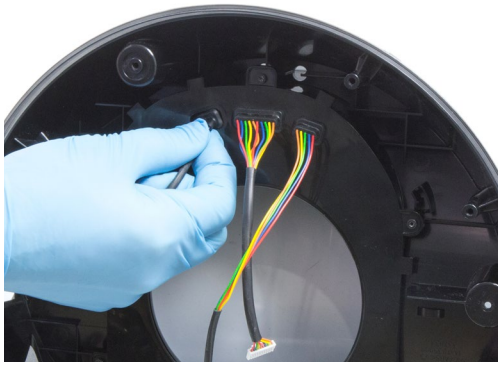
17 Locate the two remaining looms inside the large grommet ensuring the larger loom is located in the centre of the grommet.
By pushing from the inside of the neck ensure the large grommet is seated correctly.

18 Fit the four T-15 screws.

19 Feed the three looms through the neck plate.



20 Fit the six T-8 screws.

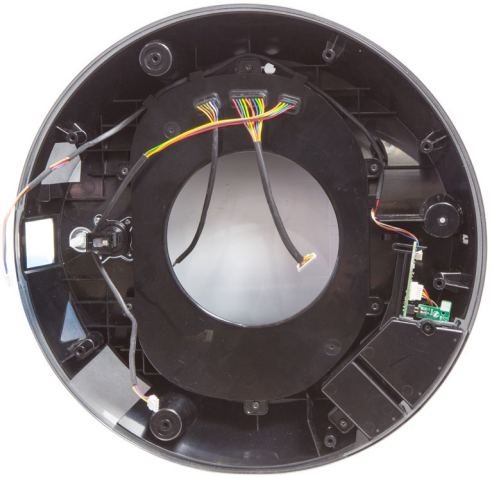


21 Seat the three grommets into the neck plate.

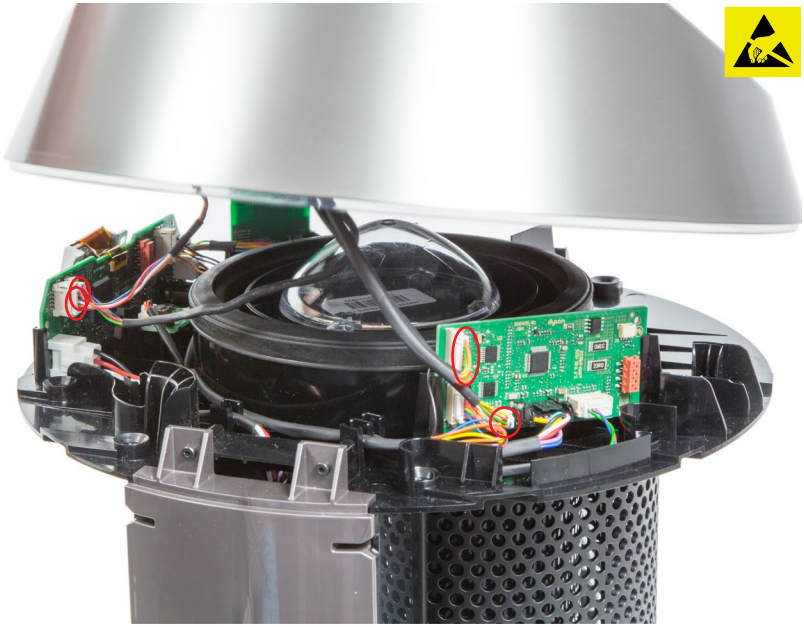
22 Locate the foam ring and then the spring into the AMP neck assembly.

Ensure the On/Off button is orientated the correct way up. Push the On/Off Button Service assembly through the hole in the neck until it locks into place.

23 Carefully attach the Dust sensor to main controller loom. Locate the Dust Sensor and Dust sensor PCB Service assembly.
Fit the two long T-8 screws.

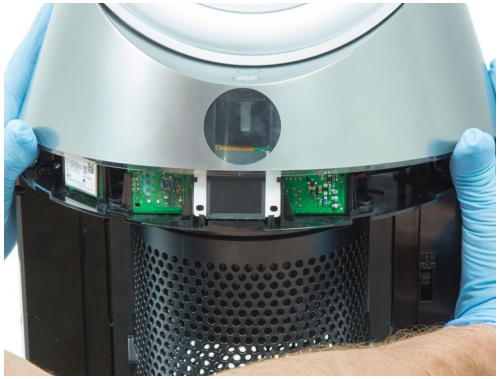


24 Secure the Dust sensor to main controller loom into the retainers provided.



25 Reconnect the four Looms.

26 Secure all Looms into the retainers provided.



27 Line up the LCD with the window on the Neck Service assembly.
Lower the Air Amp Service assembly.

28 Fit the eight T-15 screws.

29 Refit the Evaporator assembly.

30 Refit the Filter assemblies and filter Housings.

Lower Body Service Assembly - removal

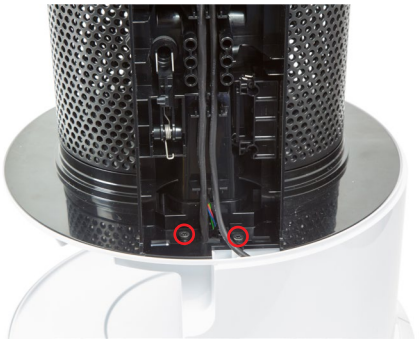
Before continuing the following components will need to be removed as previously shown:
Air amp service assembly (Pages 10 - 11, steps 01 - 05)

31 Remove the Water tank.

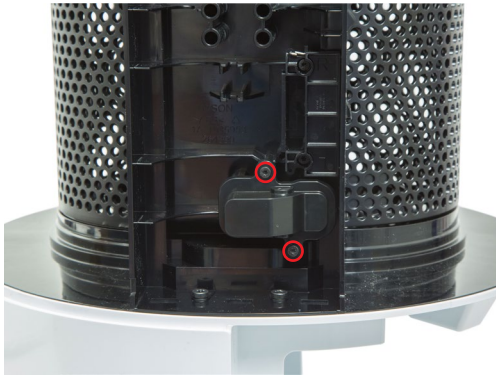
32 Remove the two T-8 screws in the top of the Filter release catch service assembly.

33 Remove the Filter release catch service assembly from the Main body. Repeat on the opposite side.

34 Disconnect the Power loom from the Power controller PCB.



35 Remove the two T-15 screws on the right handside from behind the filter release catch holding at the base.

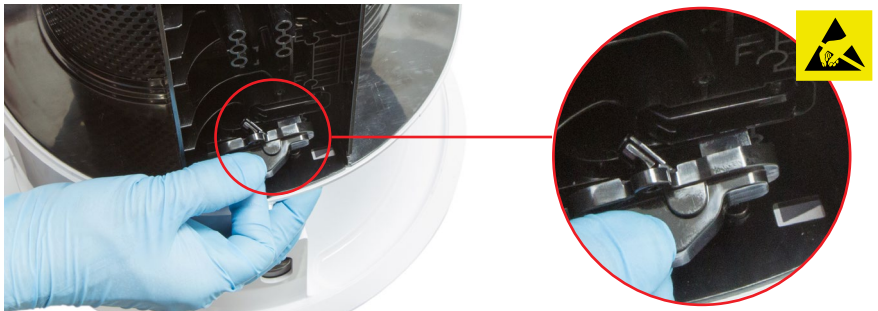


36 Repeat on the opposite side.
Important: on the left handside the hinge cover will need to be removed to gain access to the remaining screw.
Remove the two T-8 screws holding the lower hinge cover. Remove the cover.

37 If the Evaporator door needs replacing, remove the two screws in the top hinge cover and remove the cover.

38 Open the door until the hinges pop out of the retaining details.

39 To refit the Evaporator door, squeeze the top and bottom arms of the hinges into the holes and locate within the details.



40 To refit the hinge covers, shut the door. Slide the cover from behind the hinge so the lever folds back into the cover.

Slide the cover forward until the screw bosses line up.

Fit the two T-8 screws into the Hinge cover.

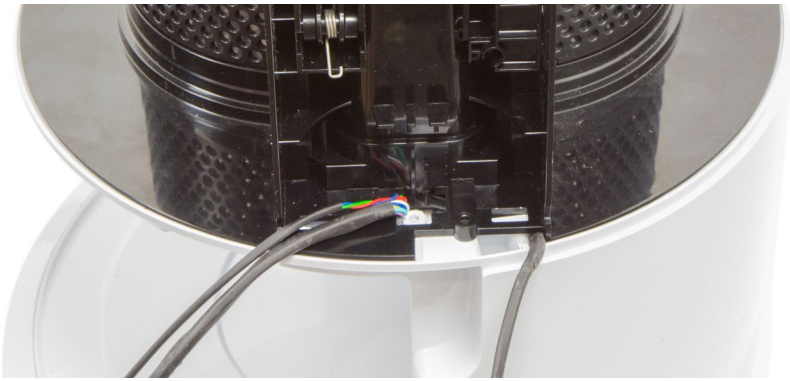
41 Remove the two T-15 screws.

42 Remove the two T-8 screws from the underside of the Lower body service assembly.

43 Twist the Main body clockwise until its stops (it will only be about 5mm).

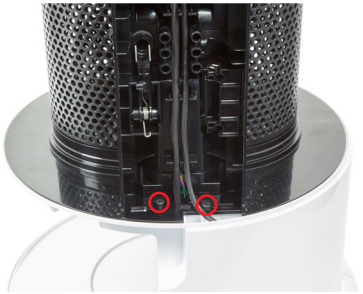
44 Release the Power loom from the retainers in the side of the Main body.

45 Lift the Main body away from the Lower body service assembly.

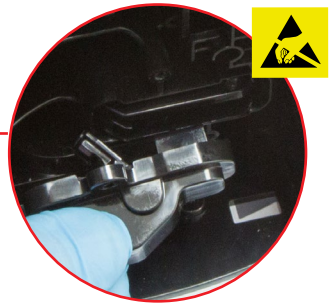


46 Place the Main body on top of the Lower Body Service assembly.
Ensure it is positioned as shown, with the Main power loom untrapped.

47 Twist the Main body anti-clockwise until the screw bosses align.



48 Fit the two T-8 screws in the underside of the Lower body, and the four T-15 screws to secure the Main body to the Lower Body.



49 To refit the hinge covers, shut the door. Slide the cover from behind the hinge so the lever folds back into the cover.

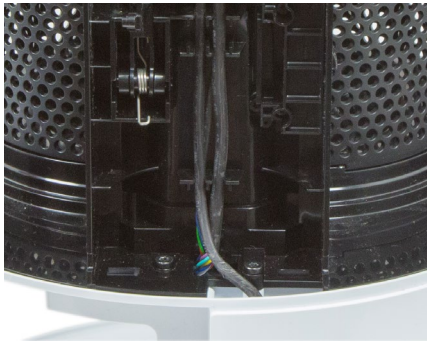
Slide the cover forward until the screw bosses line up.

Fit the two T-8 screws into the Hinge cover.

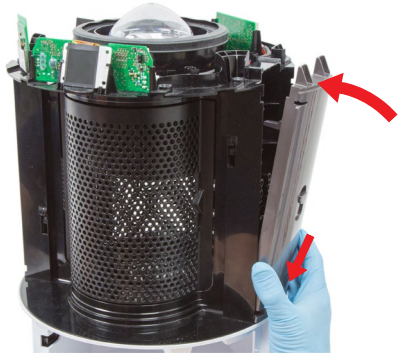
50 Feed the power loom through the hole in the top right hand side of the main body.

51 Connect the Main power loom to the Main PCB assembly.

52 Retain the Main power loom with Ferrite core into the details provided.



53 Ensure the power loom is positioned as shown to avoid trapping.



54 Slide the bottom of the Filter release catch into the details in the Main body.

55 Secure the Filter release catch with the two T-8 screws.
Repeat on the opposite side.

After fitting the screws, continuing fitting the following components as previously shown:
Air AMP Service assembly (Page 21 - 24, steps 25 - 30)

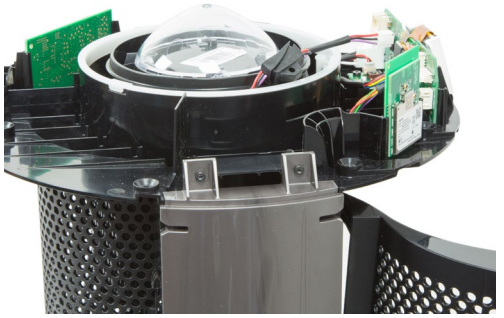
Motor and Bucket Service Assembly - removal

Before continuing the following components will need to be removed as previously shown:
Air amp service assembly (Pages 10 - 11, steps 01 - 05)

56 Disconnect the Motor loom from the Main PCB assembly.

57 Remove the Motor to amp seal.

58 Push the Grommet, loom and connector through the hole in the Main body. Open the Evaporator door.



59 Feed the Grommet and connector through the hole.

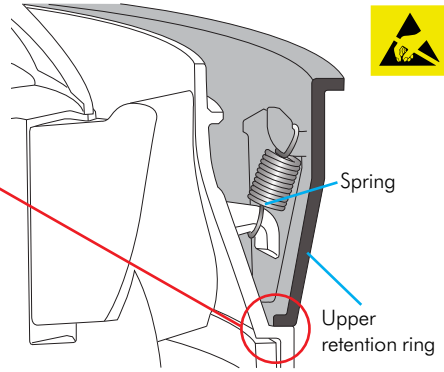
60 Ensure the Evaporator door is open.

61 Using a blunt screwdriver carefully push the three tabs securing the Motor and Bucket assembly inside the Main body.
Lift the Motor and Bucket out of the Main body as the last tab is released.

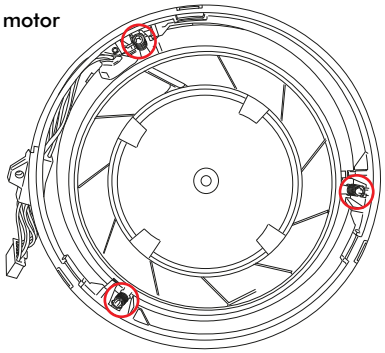
62 With all three clips released the motor bucket can be removed. Carefully lift the motor bucket up and away from the Main body.

Cross section view of Upper retention ring and spring positions

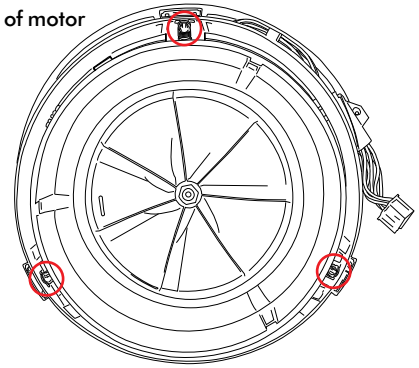
Important: during shipping/transport the Upper, Lower retention rings and springs can detach. Before fitting the Motor and bucket assembly the Upper and Lower retention rings have to be seated on their corresponding ledges on the motor bucket and the six springs attached as shown. If this is not carried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



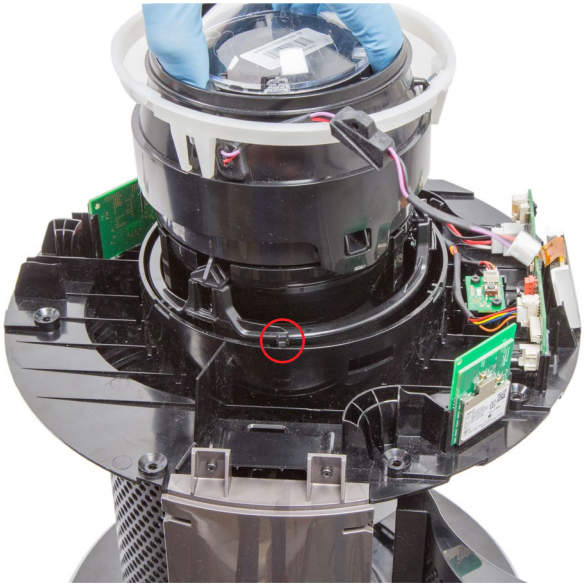
Top view of motor



Bottom view of motor



63 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.



64 Line up the new Motor and Bucket service assembly as shown.
Position the grommet to the left of the Main PCB and the motor bucket retaining clip located in the centre of the Main PCB and LCD UI display.

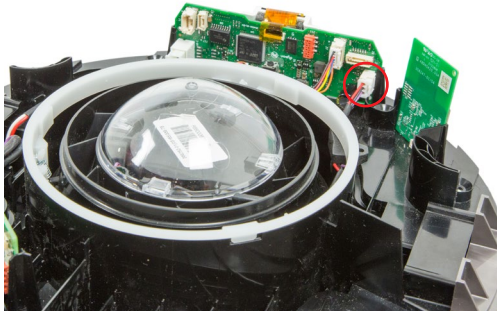
Slide the Motor and Bucket gently down into the Main body.

65 Push the Motor down until three clicks are heard.

Twist the Motor from right to left to test it has locked into the Main body securely.

66 Feed the motor loom connector through the hole in the Main body.

67 Securely seat the motor loom grommet into the hole in the main body.



68 Connect the new motor to the Main PCB.

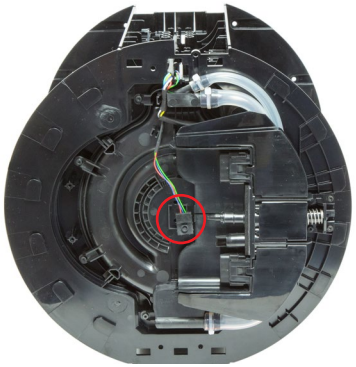
69 Fit the Motor to AMP seal.
Ensure it is the correct way up and seated around the top of the Motor bucket.

After fitting the seal, continuing fitting the following components as previously shown:
Air AMP Service assembly (Page 21 - 24, steps 25 - 30)

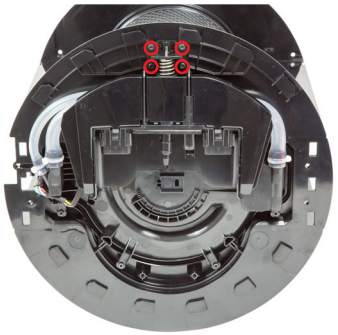
Repair notes

Connection Shuttle Service Assembly - removal

Before continuing the following components will need to be removed as previously shown:
Air amp service assembly (Pages 10 - 11, steps 01 - 05)
Lower Body Service assembly (page 25 - 30, steps 31 - 35).

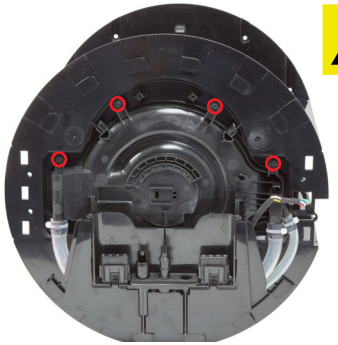


70 Remove the Tray Level Harness assembly.
If the reason for the repair is to replace the Tray Level Harness go to page ?? step ?? for fitting instructions.



71 Remove the four T-8 screws holding the Shuttle Spring Spigot and Spring.
Caution: the spring is under tension.
Important: wear protective glasses .

72 Firmly slide the Connection Shuttle away from the Water return tray until it releases.

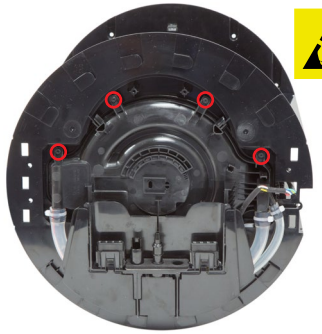


73 Remove the six T-8 screws holding the tray to the Main body.

74 Disconnect the Shuttle Loom from the Power controller PCB and release the loom from the retainers in the side of the Main body.

75 Remove the Connection Shuttle Service assembly from the Main body.

76 Slide the new Connection Shuttle Service assembly into place ensuring all the looms are free from trapping and no seals have folded over.



77 Fit the six T-8 screws.

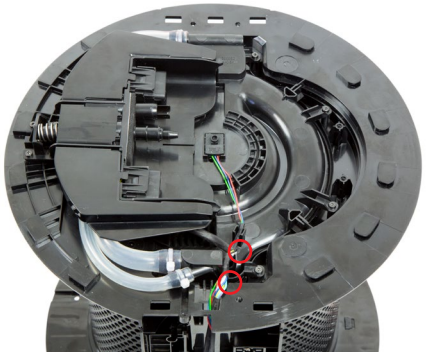
78 Firmly locate the two rails on the base of the Water return tray onto the details on the Connection Shuttle.

79 Position the Connection Shuttle as shown and test it slides freely.

80 Locate the Shuttle Spring and Shuttle Spring Spigot into the hole in the rear of the Connection Shuttle.

81 Hold the Spigot firmly whilst carefully fitting the four T-8 screws.

82 Locate the tray level sensor into the water return tray.



83 Retain the Tray level sensor harness into all the details provided and feed through the top of the Main body.

84 Retain the Shuttle Harness into all details provided and feed through the top of the Main body.

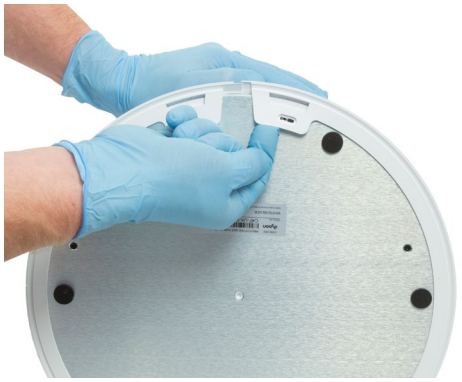
After fitting the harness, continuing fitting the following components as previously shown:
Lower boby assembly (pages 31 - 35, steps 46 - 55)
Air AMP Service assembly (Pages 21 - 24, steps 25 - 30)

Repair notes

Internal Power Harness Service Assembly - removal

Before continuing the following components will need to be removed as previously shown:
Air amp service assembly (Pages 10 - 11, steps 01 - 05)
Lower Body Service assembly (page 25 - 30, steps 31 - 35).

85 Remove the two T-8 screws holding the Base skirt.



86 Unclip the retaing detail of the skirt from the base.

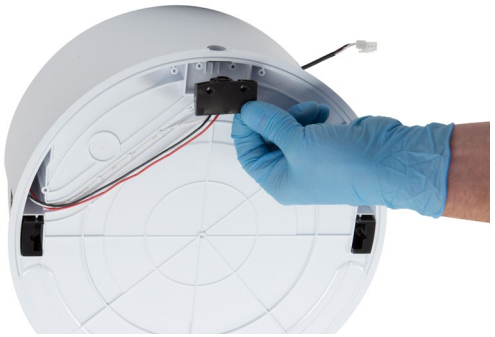
87 Peel away the Base skirt.

88 Unclip the retaing detail at the end of the skirt from the base.

89 Remove the two countersunk T-8 screws holding the Base plate.

90 Remove the metal Base plate.

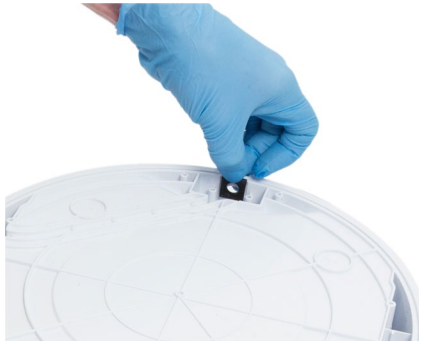
91 Remove the two T-8 screws securing the Socket holder.



92 Remove the Holder and Power harness.

93 Carefully snip the Power harness and feed through the Lower body.

94 Feed the new Power Harness through the right handside of the Lower Body Service assembly.



95 Locate the gasket into the hole in the Lower body. Ensure it is centered and there are no folds.

96 Locate the Harness through the opening in the top of the holder.

97 Pull the Jack into the holder until it locks and is flush with the edge as shown.

98 Seat the front of the holder into the gasket.

99 Press the holder down and fit the two T-8 screws.
IMPORTANT: whilst tightening the screws check that the gasket does not become mishapen or the DC Jack misplaced.

100 Retain the Internal Power Harness into the details provided in the Lower body.

101 Place the Base plate onto the Lower body.
Fit the two countersunk T-8 screws.

102 Locate the detail in the centre of the Base Skirt onto the centre of the Lower body Service assembly.
Push down on the centre to secure the Base skirt in place.

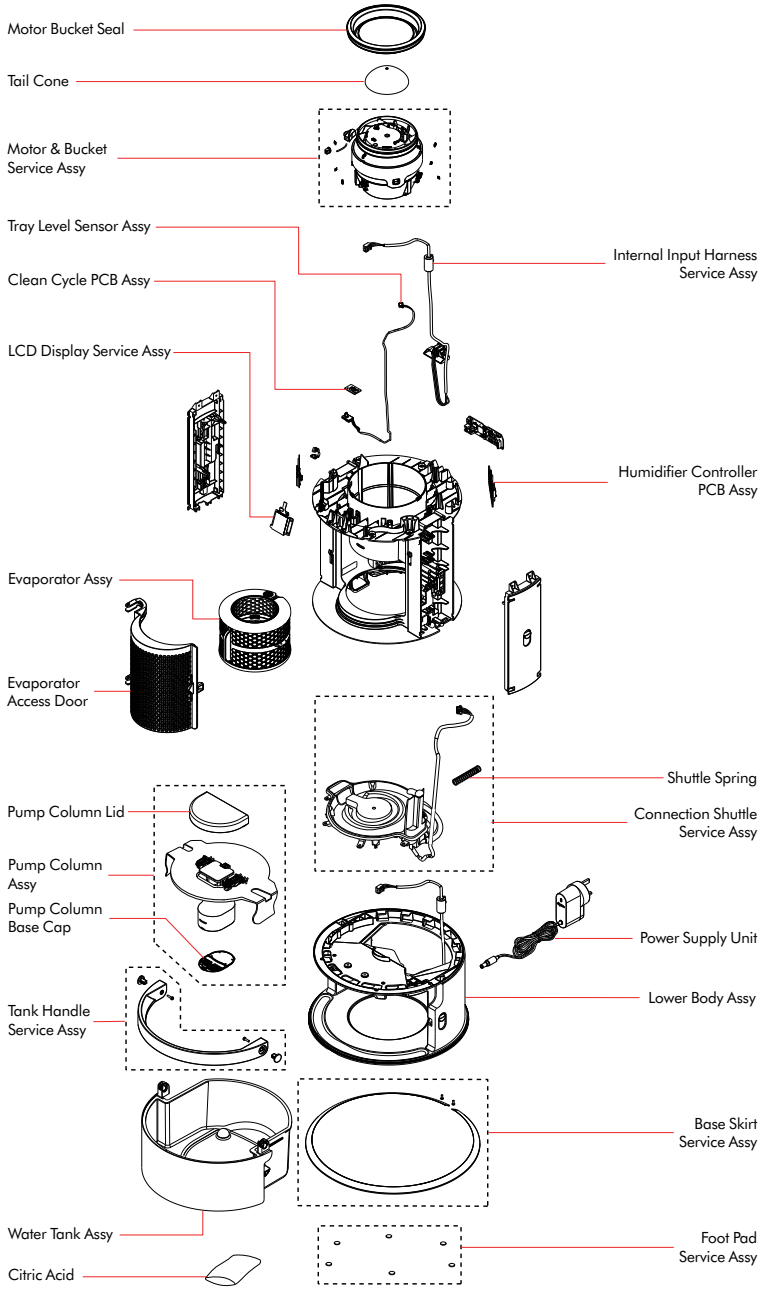
103 Run the left handside of the Base Skirt anti-clockwise aroun the base. Clip the securing tab in the base.

104 Run the right handside of the Base Skirt clockwise aroun the base. Clip the securing tab in the base.

105 Fit the Two T-8 screws.

After fitting the harness, continuing fitting the following components as previously shown:
Lower boby assembly (pages 31 - 35, steps 46 - 55)
Air AMP Service assembly (Pages 21 - 24, steps 25 - 30)

Parts diagram
Main body



Amp and Filter assemblies