

DC
22

dyson



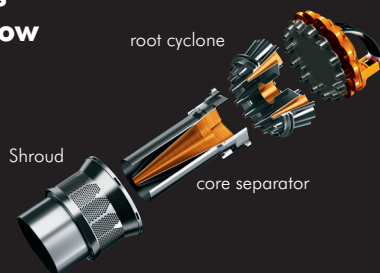
service manual

Issued Jan 08

This manual is written specifically for Dyson trained engineers and covers the full DC22 range. The service instructions assume the engineer has the approved tools and test equipment with them.

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No other cyclone technology removes more microscopic dust from the air flow



Features

Root cyclone technology

Doesn't clog and doesn't lose suction.

Dyson core separator

Combined with Root cyclone technology for increased cyclone efficiency.

Fingertip controls

Operate the machine without bending down to reach the controls.

(RF models only).

root cyclone + core separator

Root cyclone technology is a unique system that does not rely on filters or bags to separate dirt from the air. Instead it uses powerful centrifugal force to spin the dirt out of the air, so there is no clogging and no loss of suction. Combined with Dyson's latest innovation - the core separator - it's more efficient at removing microscopic dust than any other cyclonic system.

dyson digital motor



Motorised brush head

Powerful bristles remove dirt and pet hair. Uses toothed belt that doesn't slip or need replacing. (Motorhead variants only).



Trigger bin-emptying

Just push the button to empty the bin. No need to touch the dirt.

It uses the latest digital vacuum technology, so it produces zero carbon emissions. It's also smaller and lighter than conventional motors and is protected by an integrated, on-board self-diagnostic system. (DDM variants only).



Telescope Wrap system

Hose and wand compress and wrap for easy carrying and storage.

Electrical safety testing



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.

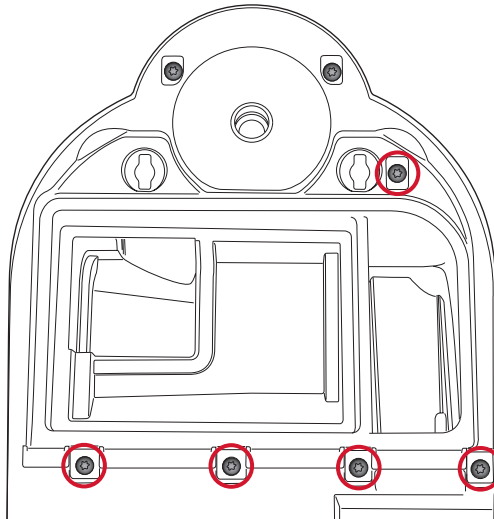
Insulation test

The following tests **must** be performed prior to and upon completion of all repairs to Dyson floorcare products and **before** any functional checks. **You must ensure that a full visual inspection of the product is completed prior to repair.** These tests are vital to avoid any possibility of personal injury to the end user.

The Seaward Primetest 200 (or equivalent) should be used to test the electrical insulation of a Class 11 appliance; it indicates any electrical leakage.

Insulation test points:

Test the five screws highlighted in the post filter housing.



Test results

An insulation test reading of $>2 \text{ M}\Omega$ is acceptable.

A reading of below $2 \text{ M}\Omega$ is not considered safe and further investigation, rectification and testing must be completed before the product is used. The following component must be visually inspected:

- Satellite assembly antenna.

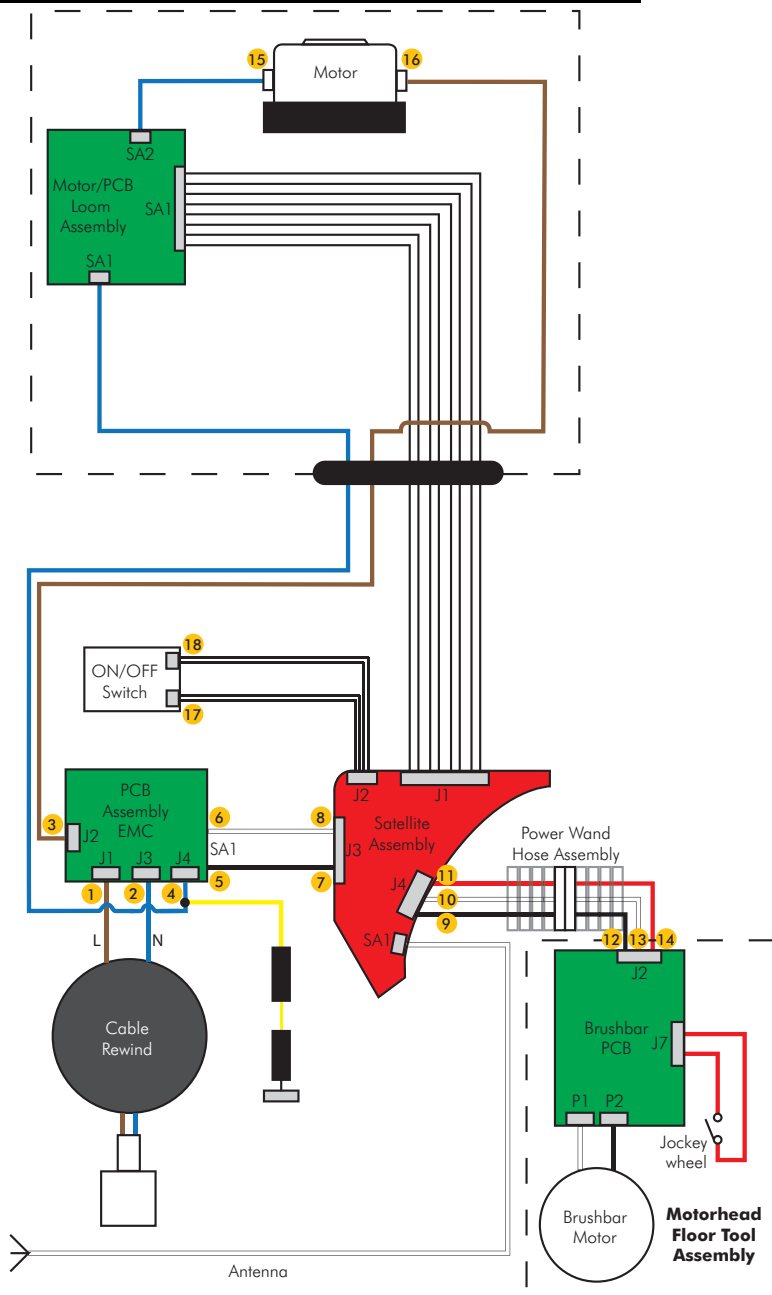
If you cannot repair a product with an insulation test reading of below $2 \text{ M}\Omega$

you must inform the customer that the product is unsafe to use.

Please inform the customer of the required actions to repair the product (including the charge structure).

If 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.

AC wiring schematic (models with finger tip controls only)



AC electrical fault diagnostic (models with finger tip controls only)

No power to either motor

1. Check for damage/electrical failure to the plug and powercord.
2. Check the resistance across the fuse (UK only).
3. Check mechanical connection at points 1-8.
4. Check the resistance between the live pin on the plug and point 1.
5. Check the resistance between the neutral pin on the plug and point 2.
6. Check the resistance between points 1 and 8.
7. Check the resistance between points 2 and 7.

No power to the vacuum motor (brushbar motor operates)

1. Ensure that the motor wires are attached to points J2 and J4 of the PCB assembly EMC.
2. Ensure that the wires are attached to points 15 and 16 on the vacuum motor.
3. Check the resistance between points 3 and 16.
4. Check the resistance between points 4 and SA1 on the motor PCB.
5. Check the resistance between points SA2 on the motor PCB and 15.
6. Replace the Motor/PCB loom assembly.
7. Replace the motor.
8. Replace the satellite assembly.

No power to the brushbar motor (vacuum motor operates)

1. Check the resistance between points 9 and 12.
2. Check the resistance between points 10 and 13.
3. Check the resistance between points 11 and 14.
4. Replace the Motorhead floor tool assembly and retest.
5. If after retesting the product the brushbar motor still does not work replace the satellite assembly.

Unable to turn on the product using the button on the main body

1. Check the mechanical actuation of the ON/OFF switch.
2. Check the resistance across the switch.
3. Check the resistance between points 17 and the relevant point on J2 of the satellite assembly.
4. Check the resistance between points 18 and the relevant point on J2 of the satellite assembly.
5. Replace the satellite assembly.

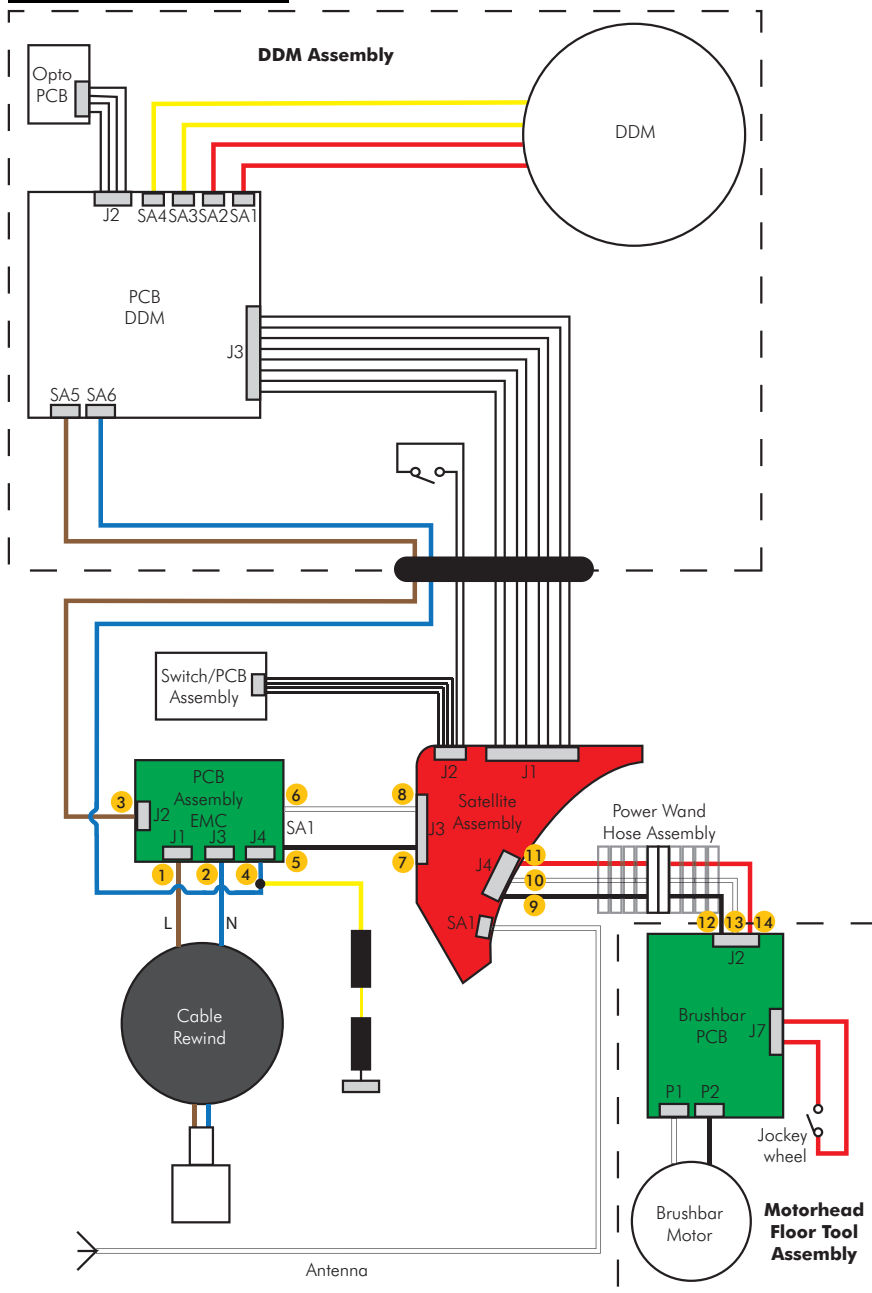
Unable to turn on the product using the fingertip controls

1. Check the wand handle LED is illuminating when the buttons are pressed. If not, replace the batteries.
2. If the LED is illuminating re-tune the wand handle to the machine (see page 8 for details).
3. Check that the Antenna is not damaged and is sufficiently attached to point SA1 of the satellite assembly.
4. Replace the satellite assembly.

Brushbar operates in the stowed position or when lifted off the floor (Motorhead models only)

1. Replace the Motorhead floor tool assembly and retest.
2. If after retesting the product the brushbar still operates in the stowed position or when lifted off the floor replace the satellite assembly.

DDM wiring schematic



DDM electrical fault diagnostics

No power to either motor (power LED off)

1. Check for damage/electrical failure to the plug and powercord.
2. Check the resistance across the fuse (UK only).
3. Check mechanical connection at points 1-8.
4. Check the resistance between the live pin on the plug and point 1.
5. Check the resistance between the neutral pin on the plug and point 2.
6. Check the resistance between points 1 and 8.
7. Check the resistance between points 2 and 7.

No power to either motor (power LED illuminated GREEN)

1. Replace the satellite assembly and retest.
2. If the vacuum motor is not working after replacing the satellite assembly see the '**No power to the vacuum motor (brushbar motor operates)**' section below.
3. If the brushbar motor is not working after replacing the satellite assembly see the '**No power to the brushbar motor (vacuum motor operates)**'.

No power to the vacuum motor (brushbar motor operates)

1. Ensure that the motor wires are attached to points J2 and J4 of the PCB assembly EMC.
2. Ensure all connections are correctly seated onto the satellite PCB.
3. Replace the satellite PCB.
4. Replace the DDM assembly.

No power to the brushbar motor (vacuum motor operates)

1. Check the resistance between points 9 and 12.
2. Check the resistance between points 10 and 13.
3. Check the resistance between points 11 and 14.
4. Replace the Motorhead floor tool assembly and retest.
5. If after retesting the product the brushbar motor still does not work replace the satellite assembly.

Unable to turn on the product using the button on the main body

1. Replace the switch/PCB assembly.
2. Replace the satellite assembly.
3. Replace the DDM assembly.

Unable to turn on the product using the fingertip controls

1. Check the wand handle LED is illuminating when the buttons are pressed. If not, replace the batteries.
2. If the LED is illuminating re-tune the wand handle to the machine (see page 8 for details).
3. Check that the Antenna is not damaged and is sufficiently attached to point SA1 of the satellite assembly.
4. Replace the satellite assembly.

Brushbar operates in the stowed position or when lifted off the floor (Motorhead models only)

1. Replace the Motorhead floor tool assembly and retest.
2. If after retesting the product the brushbar still operates in the stowed position or when lifted off the floor replace the satellite assembly.

DDM on-board diagnostics

DDM variants of DC22 also include the following on-board diagnostics:



Green light: machine is healthy



Red light: machine is blocked. The machine should be unplugged from the electrical outlet and checked for blockages. Once the blockage is cleared the machine should be plugged into the electrical outlet. The ON/OFF button will continue to illuminate red. Once the machine is turned on the ON/OFF button will change to green to indicate it is healthy.



Flashing Red/Green light: pre-filter is missing. If missing fit a filter. If the pre-filter was present check the actuation of the pre-filter microswitch when locating the pre-filter into the chassis. If you can't hear an audible click when locating the pre-filter replace the DDM assembly. If an audible click is heard check the ribbon cable is attached to point J2 on the satellite assembly. If the problem is still present replace the satellite assembly.



Flashing Red light: brushbar jammed (Motorhead model only). The machine should be unplugged from the electrical outlet and the motorhead floor tool checked for blockages. Once the blockage is cleared the machine should be plugged into the electrical outlet. The ON/OFF button will continue to flash red. Once the machine is turned on the ON/OFF button will change to green to indicate it is healthy.

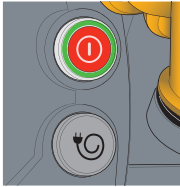


No light: LED failure. Replace the switch/PCB assembly and retest. If there is no light after replacing the switch/PCB assembly replace the satellite assembly and retest. If there is no light after replacing the satellite assembly replace the DDM assembly.

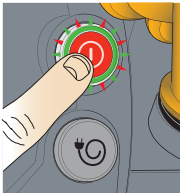
Tuning (finger tip control models only)

After replacing the wand handle assembly, handle cover assembly or satellite assembly it is necessary to tune the relevant part with the corresponding part(s). Failure to tune the parts will result in the machine not turning on when using the fingertip controls on the wand handle assembly.

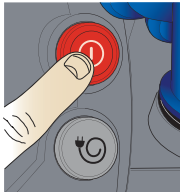
The following sequence should be used to tune the product:



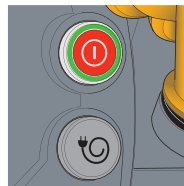
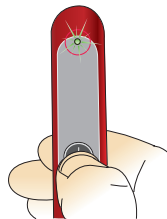
1. Plug the machine into the mains supply. On DDM models the switch actuator will illuminate green.



2. Press and hold the ON/OFF actuator on the product.
After approximately 15 seconds the actuator will flash red and green.*
Release the actuator.

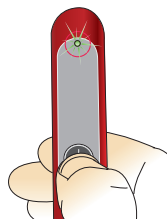


*DDM products only. If tuning an AC product it will be necessary to time the 15 seconds.



3. Press the ON/OFF button on the wand handle assembly within ten seconds.
The actuator on the product will turn green.*

*DDM products only.



Pressing the ON/OFF button on the wand handle again should start the product.
If the product does not start repeat the process.

General notes

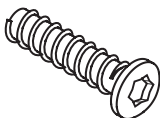


Disconnect the machine from the electrical outlet at all times during repair and test. Failure to do so could result in electric shock or personal injury.

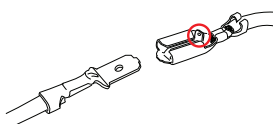


Where this symbol is shown, ensure ESD protection is used.

Wire colours may vary depending on territory.



All screws used in DC22 are Torx T15 unless otherwise stated.



All female terminal clips used in DC22 contain a locking mechanism. The release pip will need to be activated before separation from the male terminal can occur.

Recommended tools to repair DC22:

Torx T-8, T-10, T-15 and T-20 screwdrivers

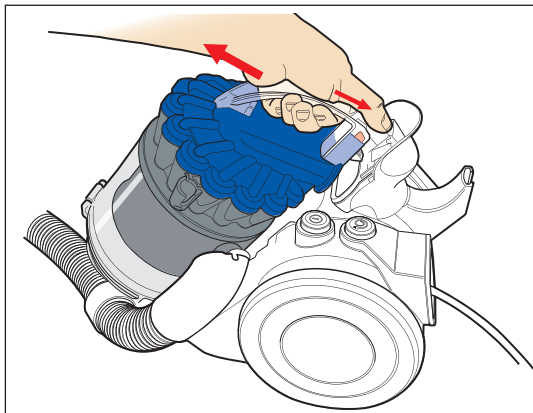
Philips screwdriver

Large flat bladed screwdriver

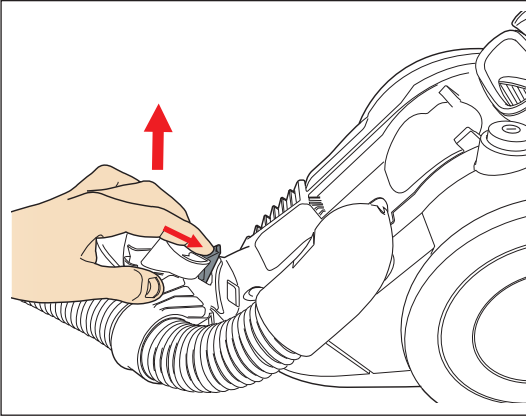
Terminal screwdriver

Long/needle nosed pliers

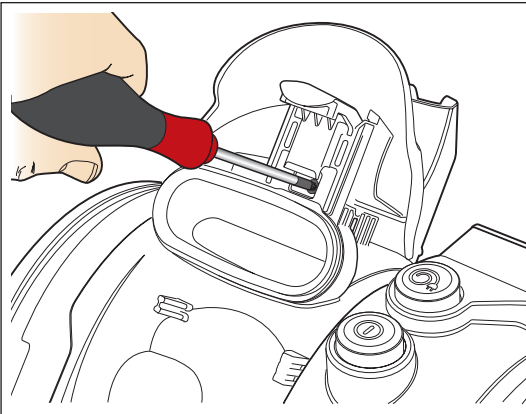
Cable rewind replacement - removal



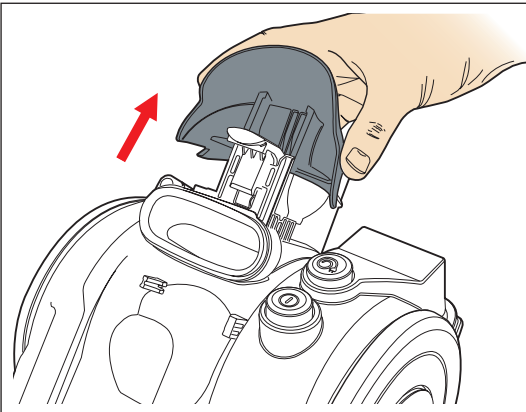
- 01** Press the cyclone release catch to remove the cyclone and bin assemblies from the front of the product.



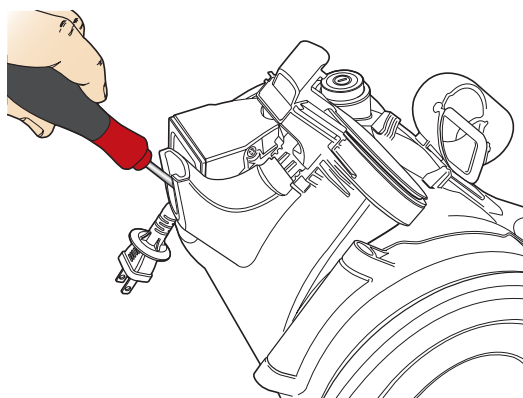
- 02** Push the hose bracket release catch to remove the hose and wand assemblies from the front of the product.



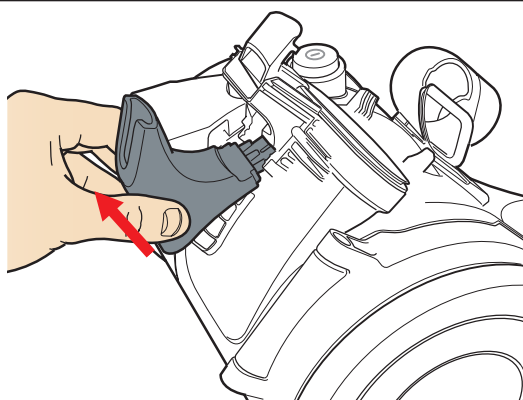
- 03** Undo the screw below the cyclone release catch.



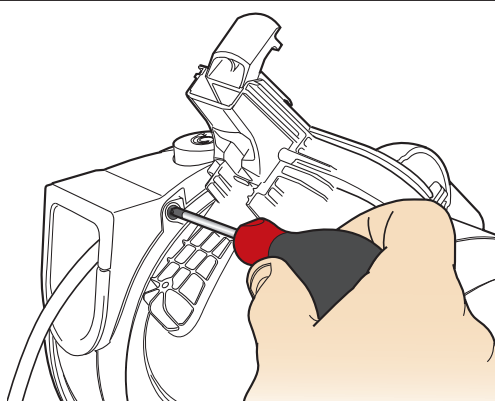
- 04** Slide the upper hose guide off the chassis.



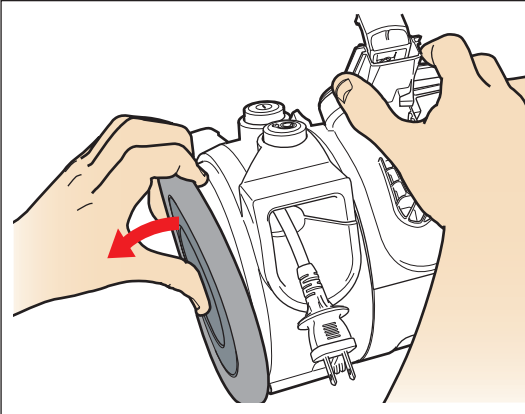
05 Undo the screw in the parking yoke.



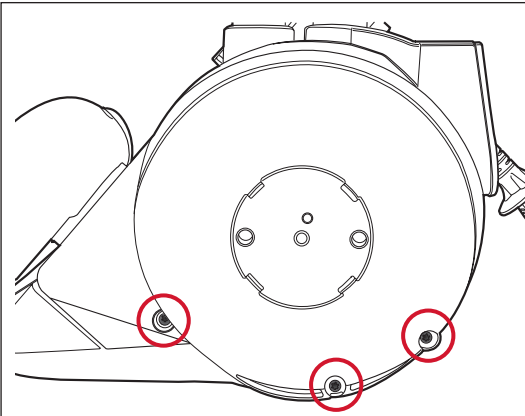
06 Remove the parking yoke from the chassis.



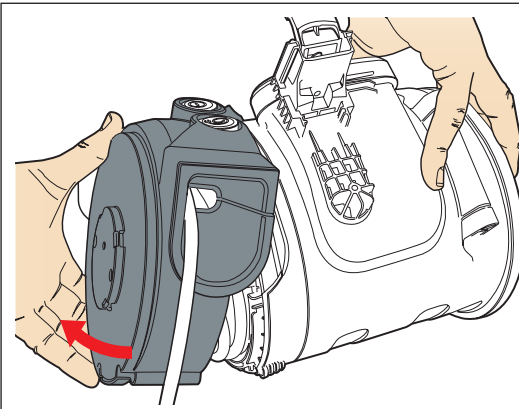
07 Undo the screw in front of the cable collar.



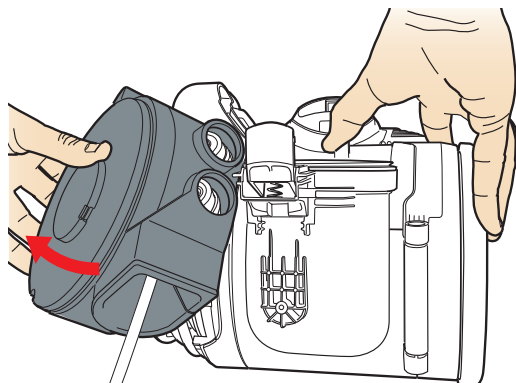
08 Pull the rear wheel and cap off the side of the product.



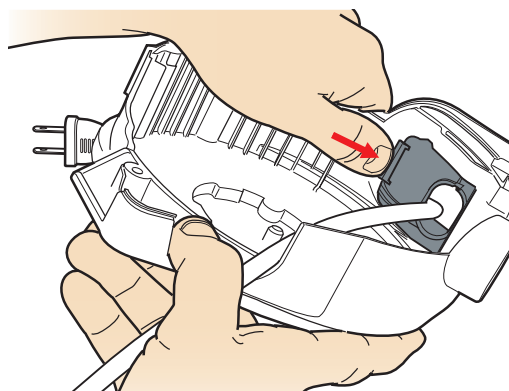
09 Undo the three screws in the cable rewind housing.



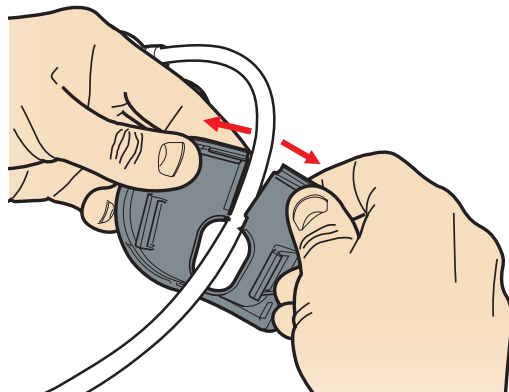
10 Unclip the cable rewind housing from the side of the product.



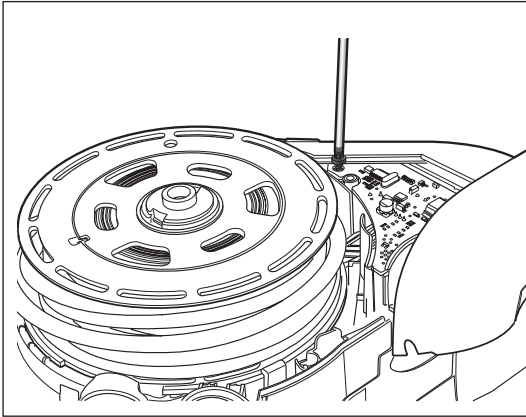
11 Remove the cable rewind housing from the side of the product.



12 Firmly press the catch to remove the cable collar from the cable rewind housing.



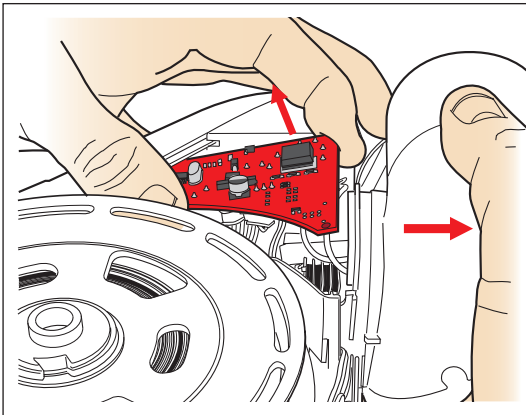
13 Open the cable collar and remove from the cable rewind.



**Models with finger
tip controls only**



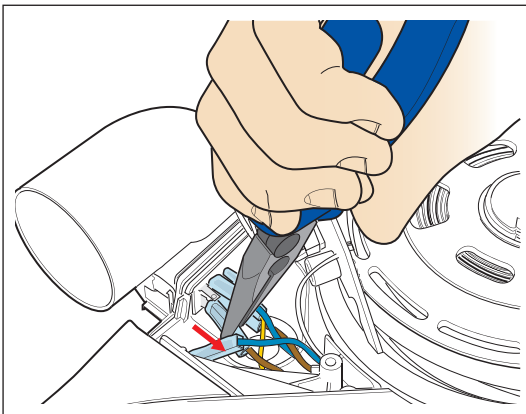
- 14** Undo the short screw in the satellite assembly.



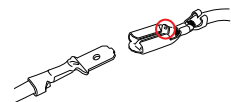
**Models with finger
tip controls only**



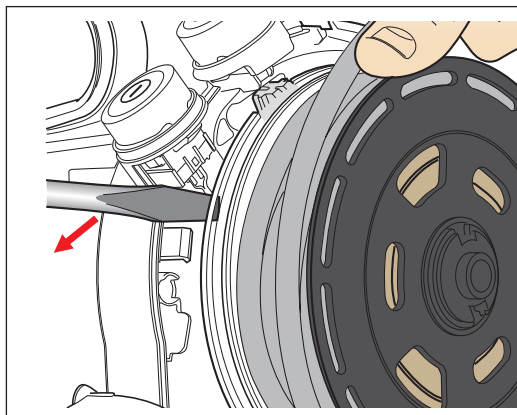
- 15** Force the cyclone inlet assembly to one side. Release the satellite assembly from the side of the product.



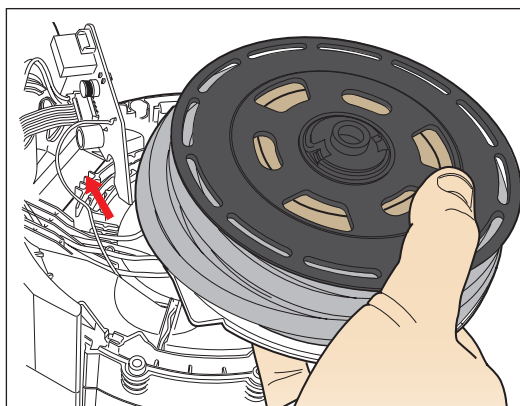
**Models with finger
tip controls only**



- 16** Carefully detach the cable rewind fly leads from the terminals on the PCB assembly EMC.



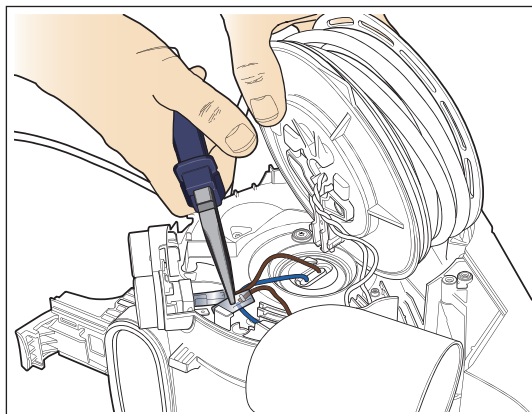
- 17** Release the cable rewind from the catch (catches on DDM products) on the side of the product.



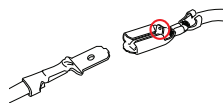
Models with finger tip controls only



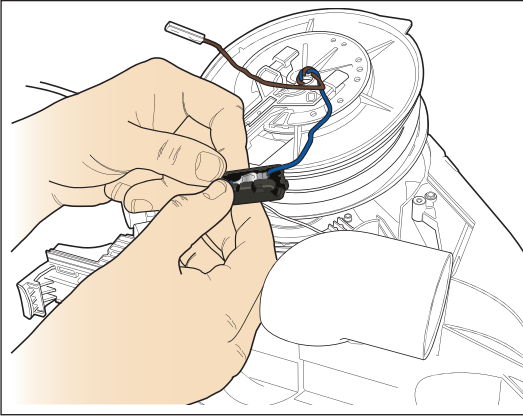
- 18** Release the cable rewind fly leads from the retaining channels. Remove the cable rewind.



Models without finger tip controls



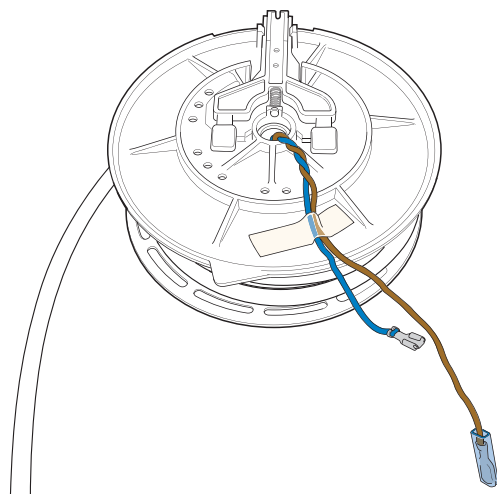
- 19** Detach the live wire from the switch.



**Models without
finger tip controls**

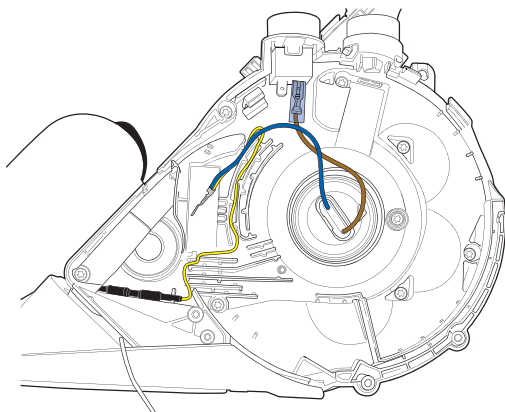
- 20** Release the connection insulator from the side of the product. Open the insulator and detach the neutral wires. Remove the cable rewind.

Cable rewind replacement - fitting

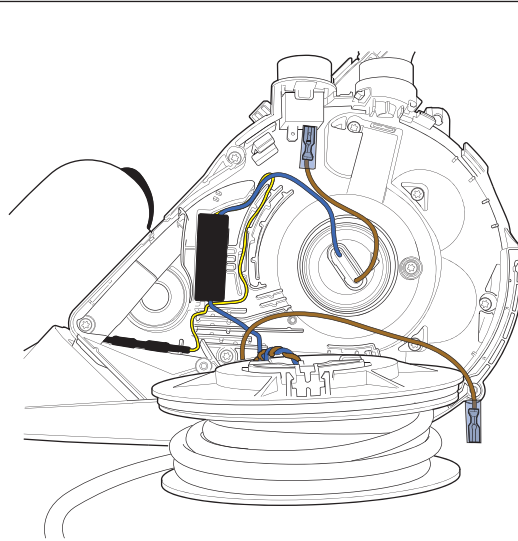


- 21** Ensure before fitting the cable rewind that the fly leads are twisted together and secured with electrical tape as shown.

Models without finger tip controls

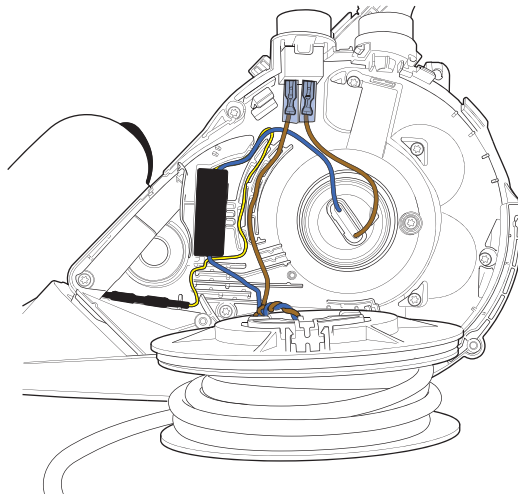


- 22** Ensure before fitting the cable rewind that the motor leads and ESD loom are neatly dressed within the channels as shown.



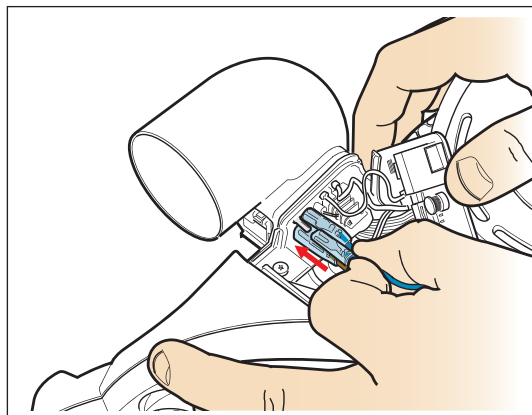
**Models without
finger tip controls**

- 23** Attach the neutral wire from the cable rewind to the neutral wire/ESD loom from the motor. Enclose the connections in the connection insulator. Locate the connection insulator onto the side of the product.



**Models without
finger tip controls**

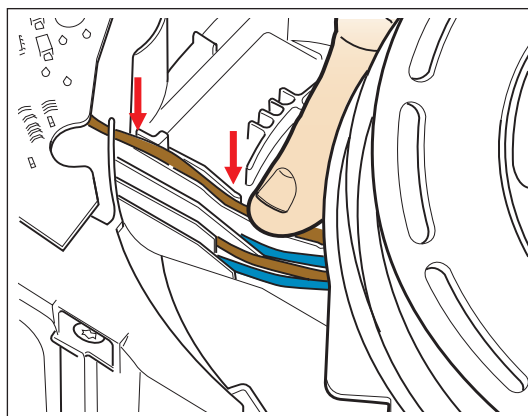
- 24** Attach the live wire from the cable rewind to the switch. Neatly dress the live wire into the channel as shown.



**Models with finger
tip controls only**



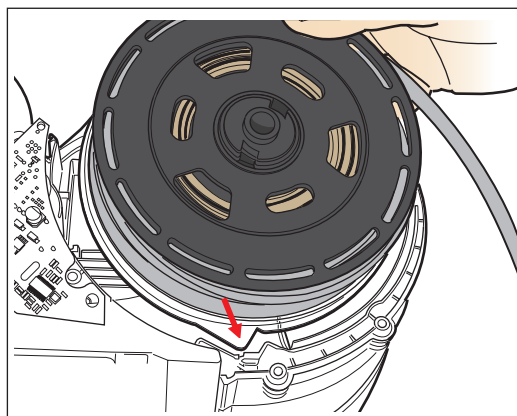
- 25** Attach the cable rewind fly leads to the terminals on the PCB assembly EMC (left handside).



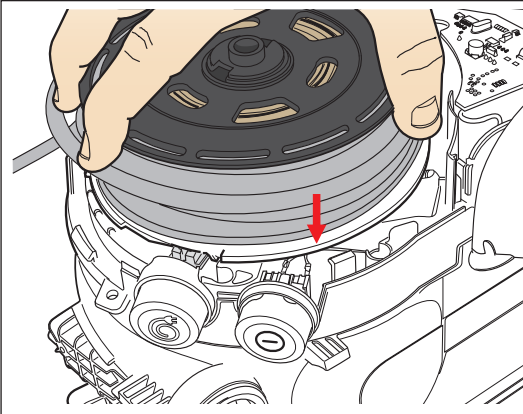
**Models with finger
tip controls only**



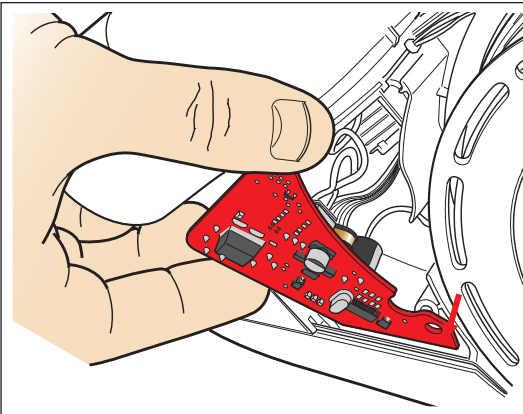
- 26** Dress the fly leads into the retaining channels.



- 27** Locate the 'fin' detail on the bottom of the cable rewind assembly into the notch in the cable housing inner cover.



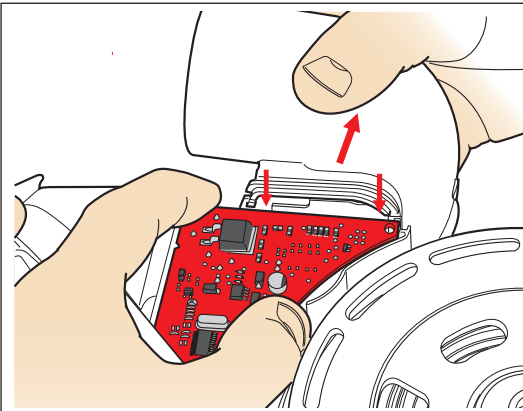
- 28** Press the cable rewind down until it clips under the retaining catch/catches.



Models with finger tip controls only



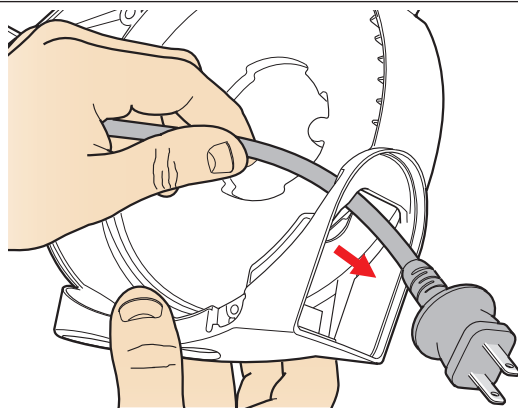
- 29** Carefully locate the lower edge of the satellite assembly into the product.



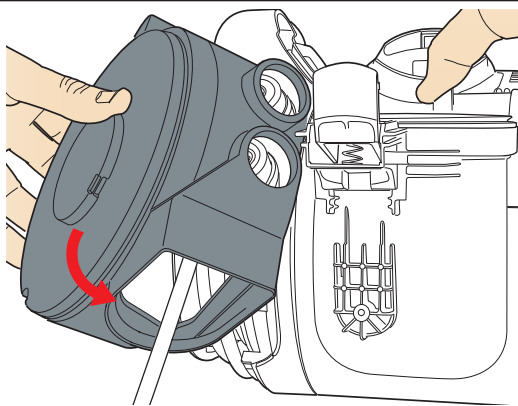
Models with finger tip controls only



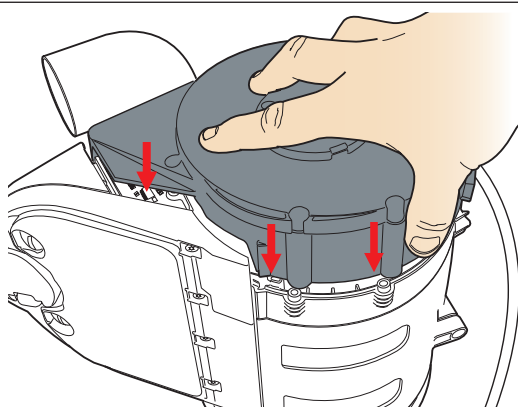
- 30** Locate the top edge of the satellite assembly into the channel in the cyclone inlet assembly. Fit the short screw.



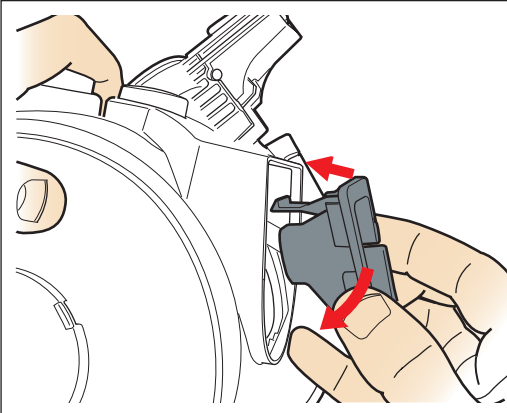
31 Locate the cable into the cable rewind housing.



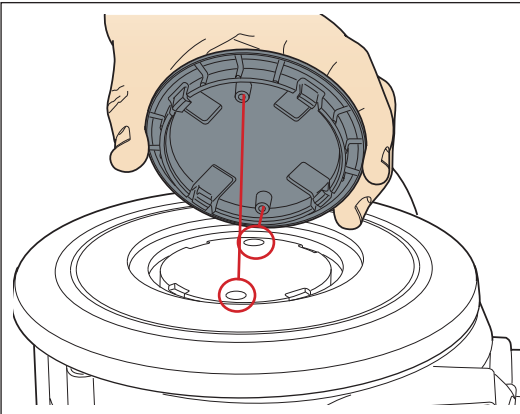
32 Locate the cable rewind housing over the rewind and switch actuators.



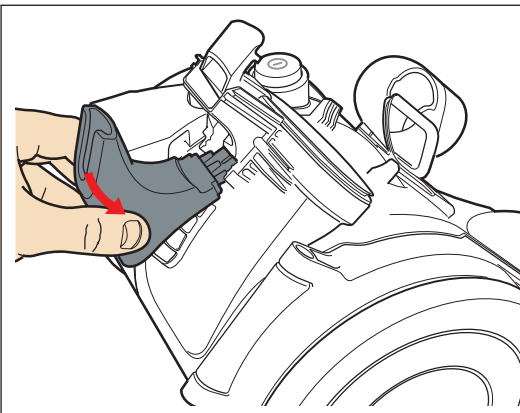
33 Fit the cable rewind housing onto the side of the product. Fit the four screws.



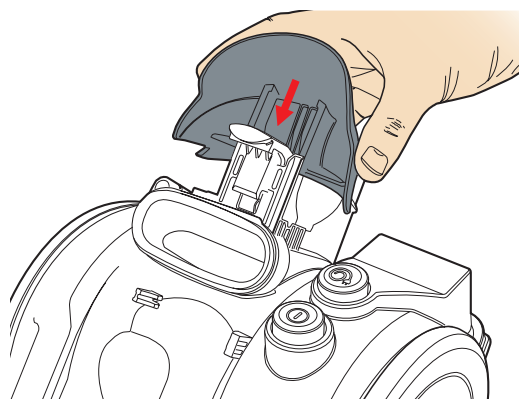
- 34** Locate the top of the cable collar into the rear of the cable rewind housing. Firmly snap the bottom of the cable collar into place.



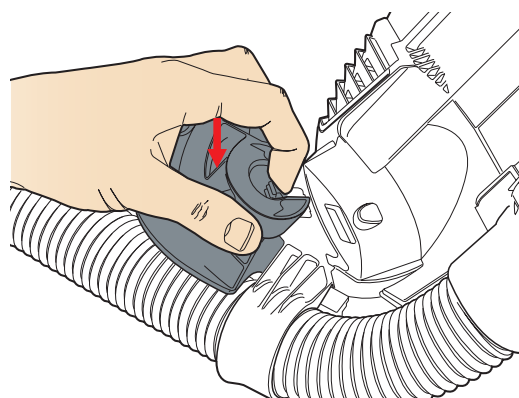
- 35** Place the wheel assembly onto the side of the product. Align the wheel cap lugs with the guide recesses on the product. Push into place.



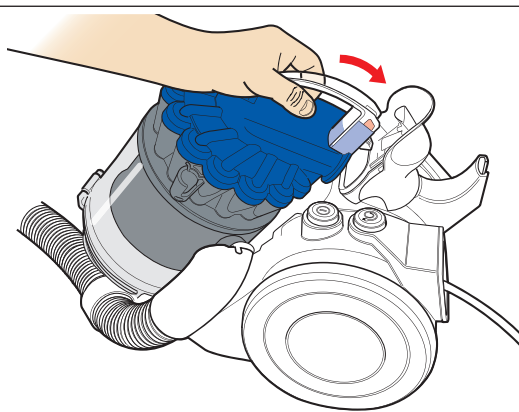
- 36** Lower the parking yoke onto the chassis. Fit the screw.



- 37** Slide the upper hose guide onto the chassis.
Fit the screw.



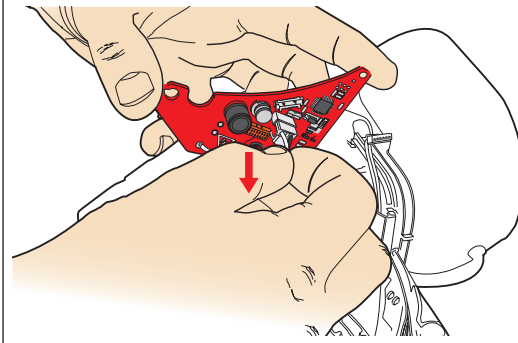
- 38** Locate the hose bracket onto the front of the product.



- 39** Fit the cyclone and bin assembly onto the product.

Switch & AC motor replacement - removal

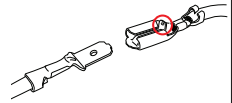
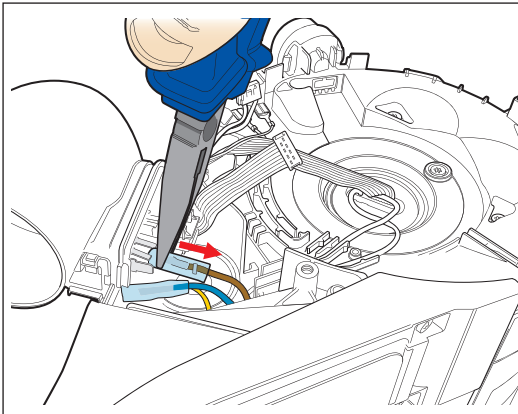
Before continuing the following parts should be removed as previously shown:
Cable rewind assembly (pages 9-16).



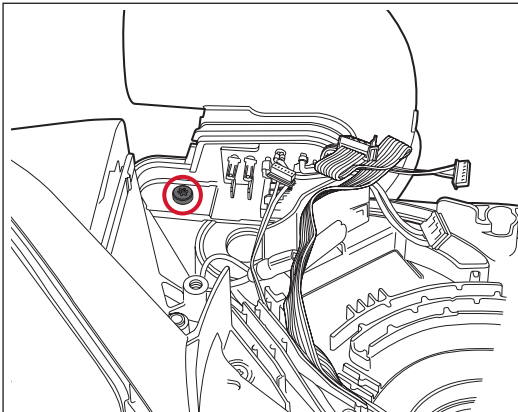
**Models with finger
tip controls only**



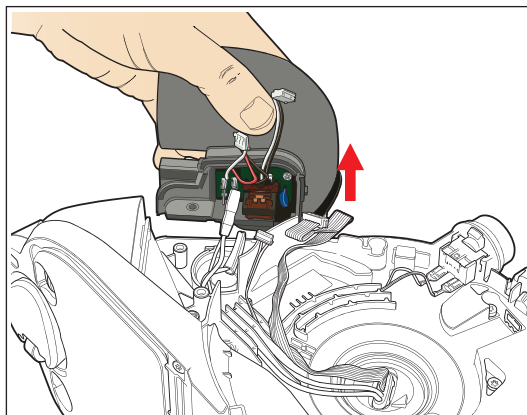
- 40** Carefully detach all wires from the satellite assembly. Place the satellite assembly to one side.



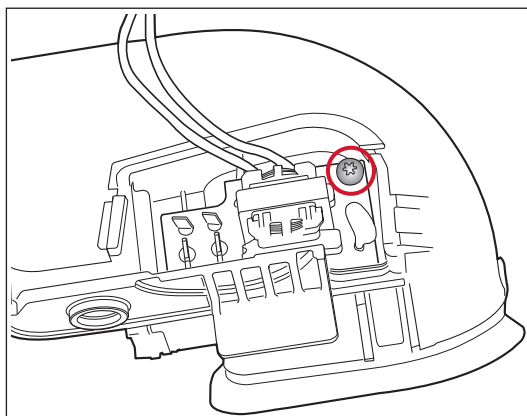
- 41** Carefully detach the motor wires from the PCB assembly EMC (on models with finger tip controls) or the switch on models without finger tip controls).



- 42** Undo the short screw in the cyclone inlet assembly.



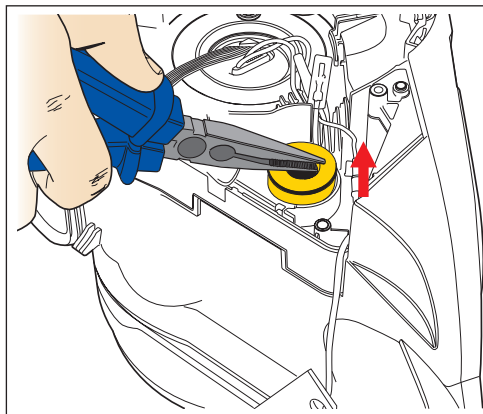
- 43** Lift the cyclone inlet assembly off the side of the product.



Models with finger tip controls only

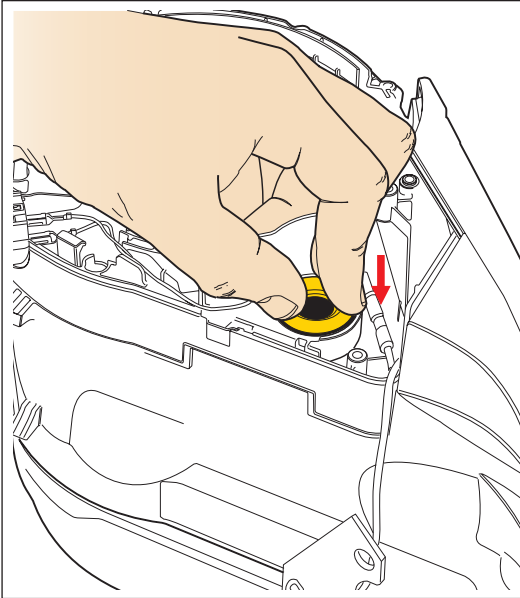


- 44** If the cyclone inlet assembly or PCB assembly EMC need replacing the parts should be separated by undoing the Torx T-8 screw.



AC models only

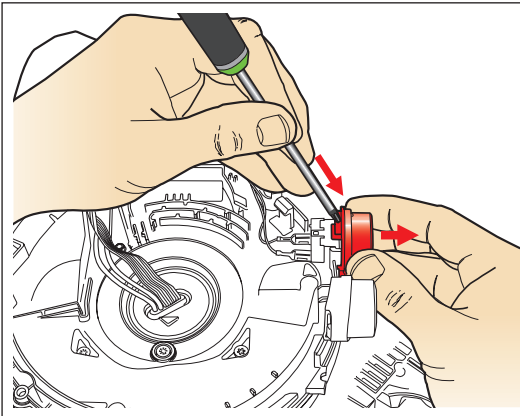
- 45** If any of the parts that make up the bleed valve need replacing, they can be removed at this stage using a pair of long nosed pliers.



AC models only

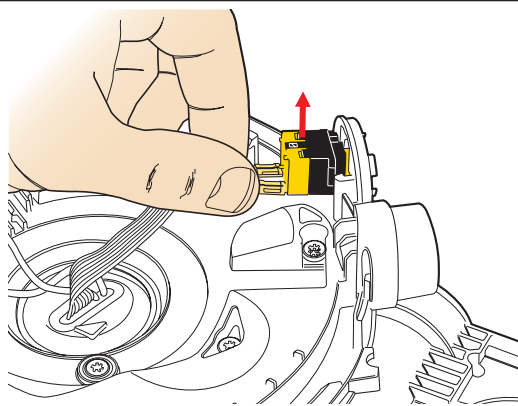
- 46** Replace the necessary part/parts and fit in reverse order.

Note: when fitted correctly the bleed valve cap should be flush with the outside of the inner cable housing assembly.



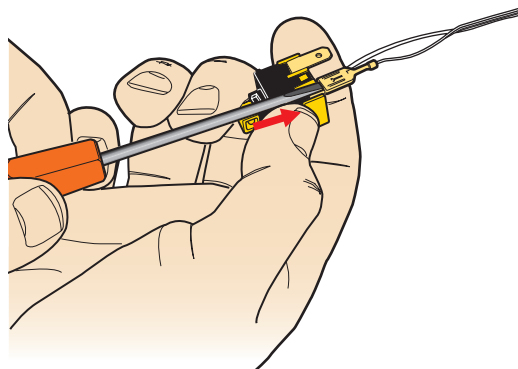
- 47** Release the switch actuator from the cable housing inner cover.*

* Only necessary if replacing the switch.



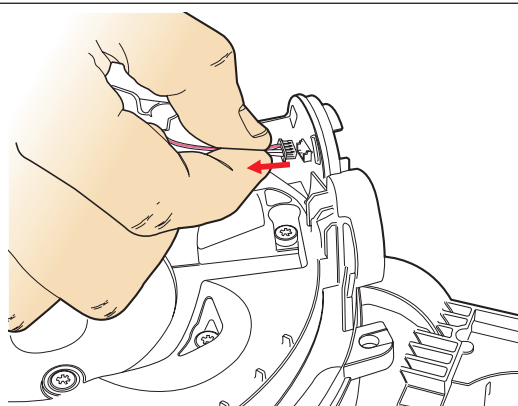
AC models only

48 Slide the switch out of the housing.*



AC models with finger tip controls only

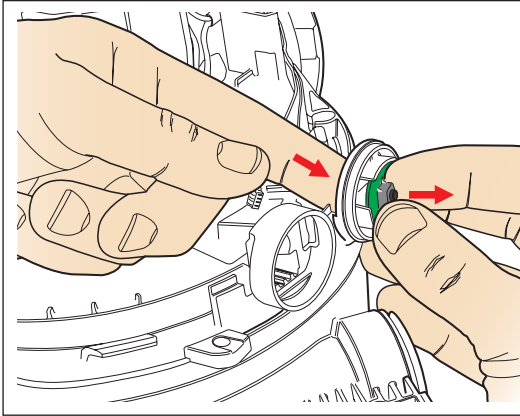
49 Carefully release the connectors from the switch terminals using a thin, flat bladed screwdriver.*



DDM models only

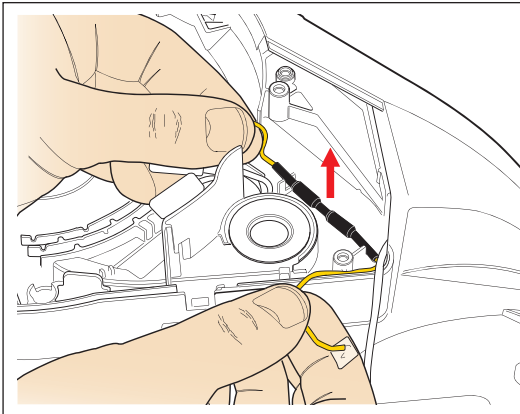
50 Carefully detach the ribbon cable from the switch.*

* Only necessary if replacing the switch.

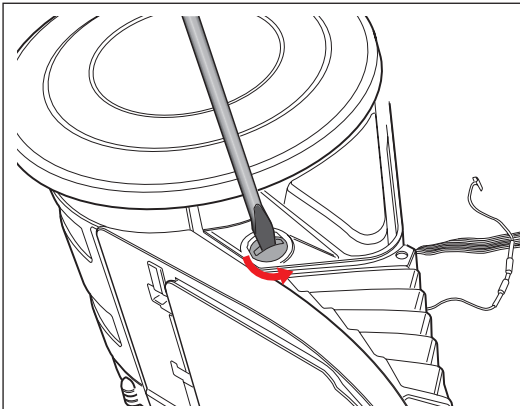


DDM models only

51 Push the switch/PCB assembly out of the housing.*

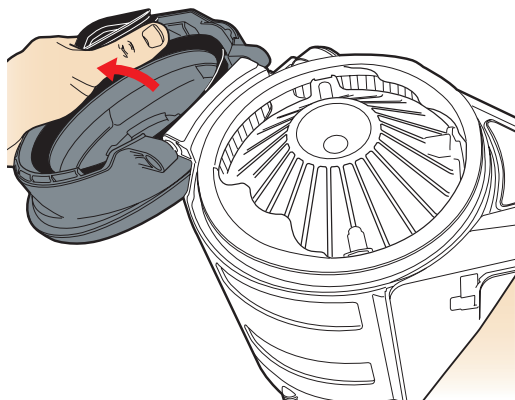


52 Carefully release the ESD loom.

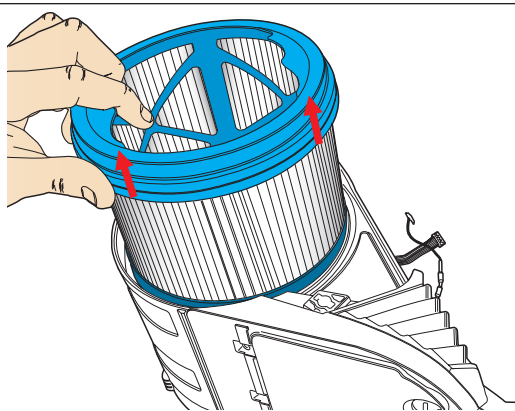


53 Undo the fastener in the pre-filter door assembly.

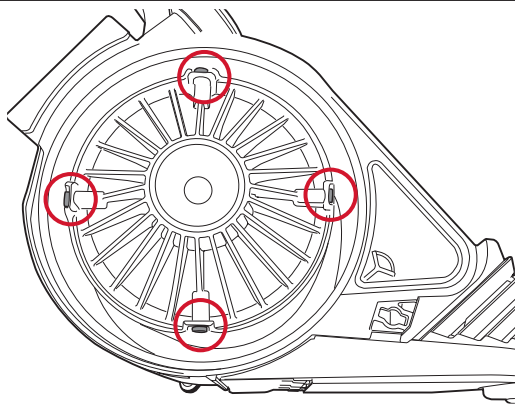
* Only necessary if replacing the switch.



54 Prise the pre-filter door assembly off the hinge points.

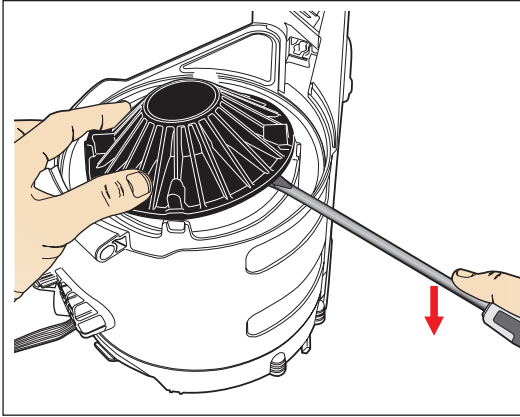


55 Remove the pre-filter assembly.



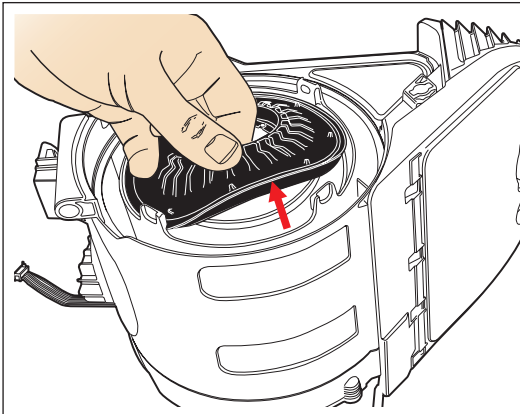
AC models only

56 Undo the four Torx T-10 screws around the fan case seal retainer.



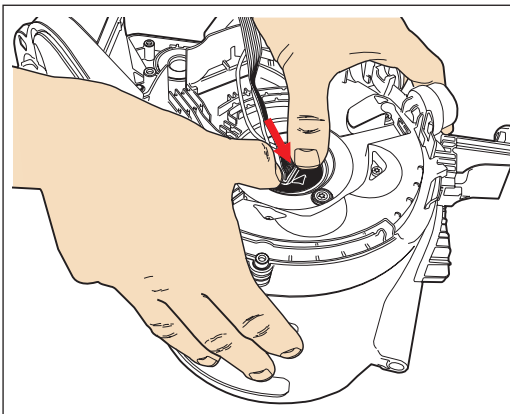
AC models only

57 Firmly release the fancase seal retainer from the four retainers.



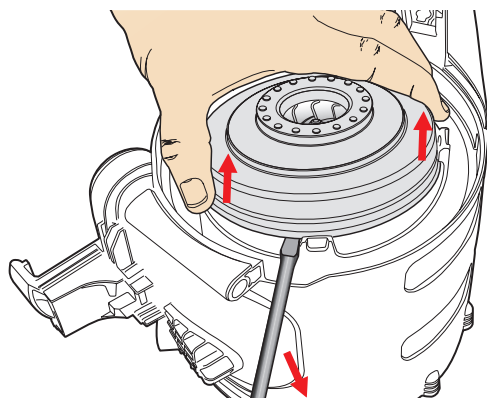
AC models only

58 Remove the fancase seal.



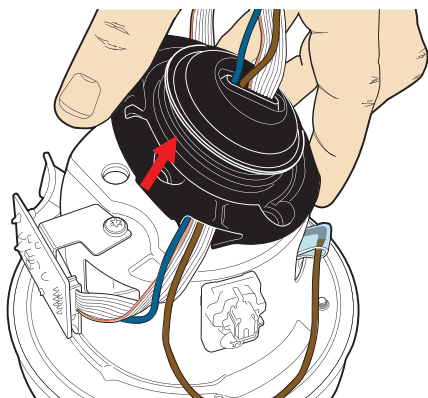
AC models only

59 Release the motor mount from the inner cable housing assembly.



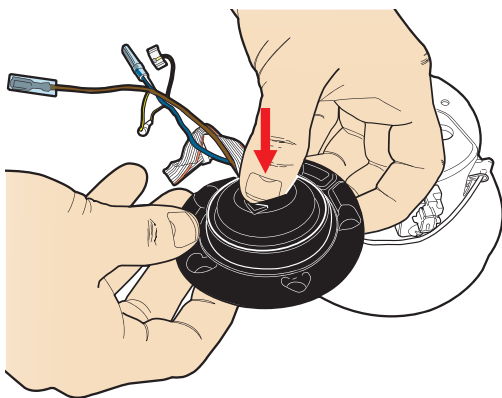
AC models only

60 Remove the motor from the chassis.



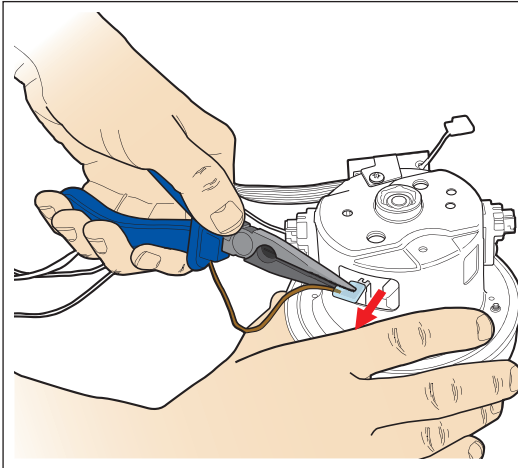
AC models only

61 Remove the motor mount from the motor.

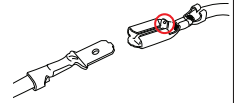


AC models only

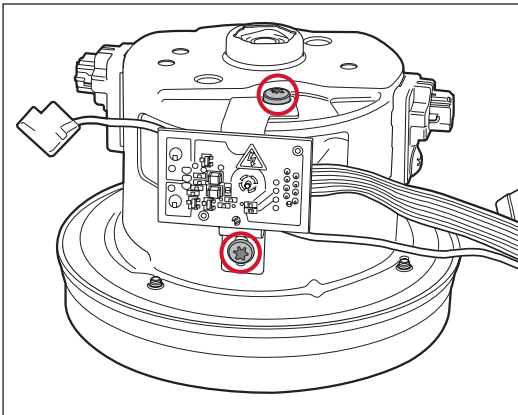
62 Release the loom grommet from the motor mount.



AC models only



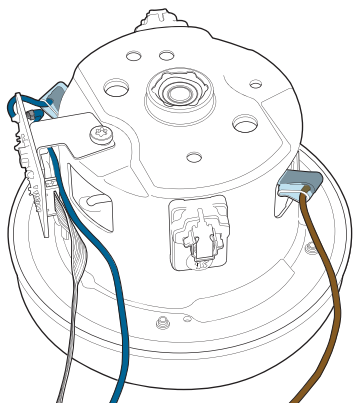
- 63** Carefully detach the loom from the motor terminals.



AC models with finger tip controls only

- 64** Undo the two Torx T-20 screws and remove the loom from the side of the motor.

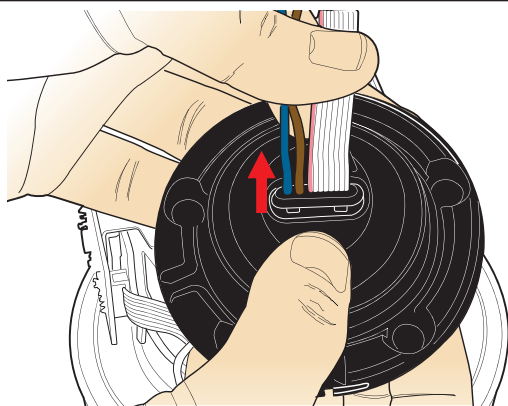
Switch & AC motor replacement - fitting



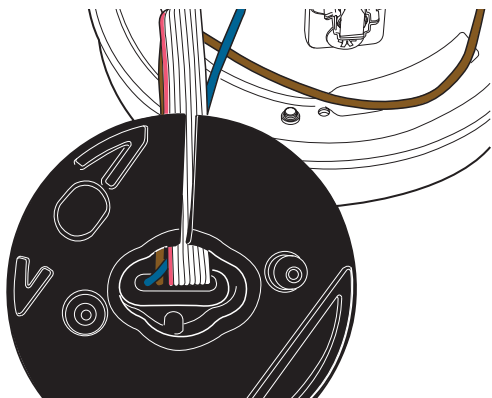
- 65** Attach the motor/PCB loom assembly bracket to the motor using the two Torx T-20 screws.* Attach the Live and Neutral wires to the motor.

Note: the Neutral wire should sit behind the PCB.

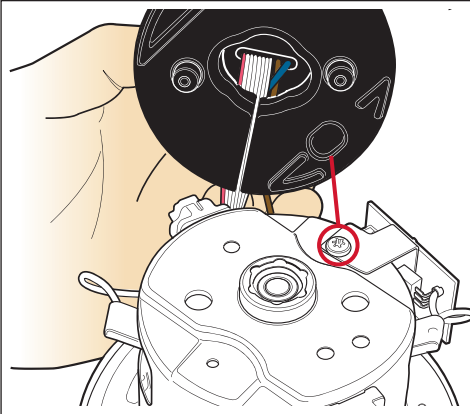
*Models with finger tip controls only.



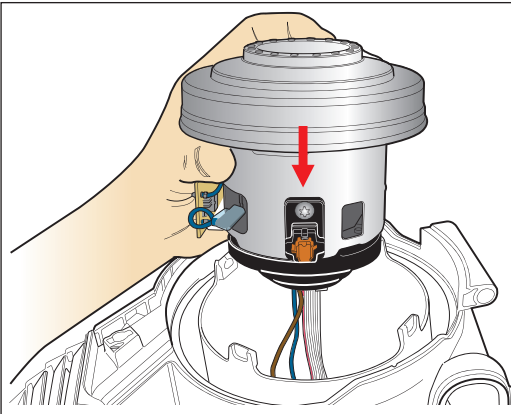
- 66** Carefully feed all the wires up through the underside of the motor mount. Locate the loom grommet into the mount.



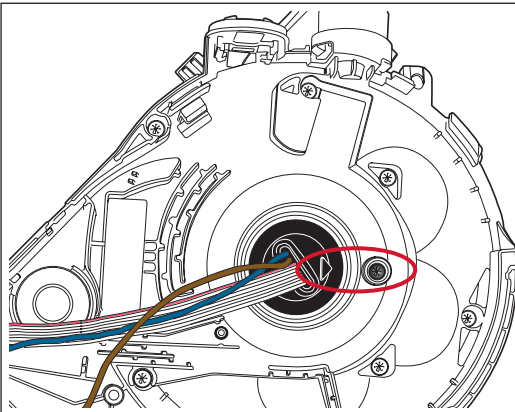
- 67** Dress the Live and Neutral wires and ribbon cable neatly under the flaps on the underside of the motor mount.



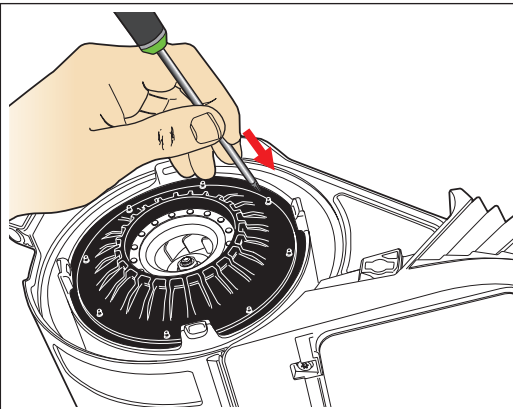
- 68** Locate the motor mount onto the motor. The detail on the mount fits over the screw.



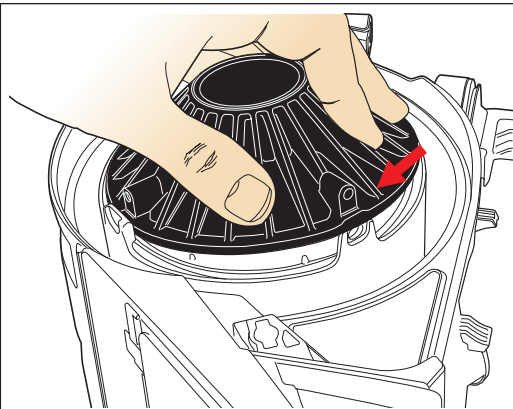
- 69** Feed the loom through the hole in the chassis. Force the motor past the retainers on the motor bucket.



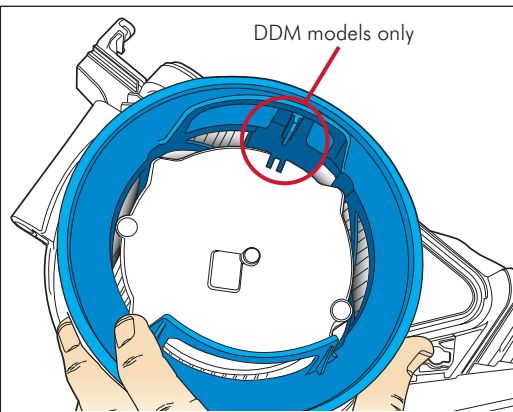
- 70** The arrow on the motor mount should align with the screw boss on the chassis.



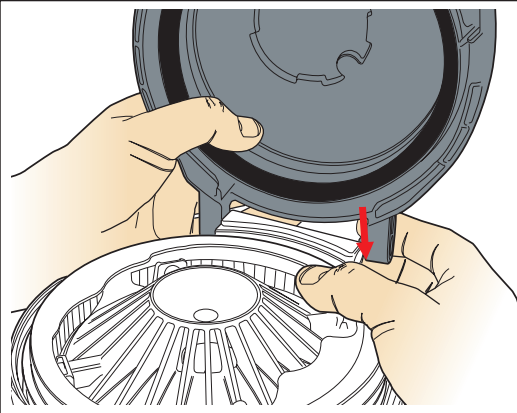
71 Locate the fancase seal under the motor bucket retainers and onto the motor.



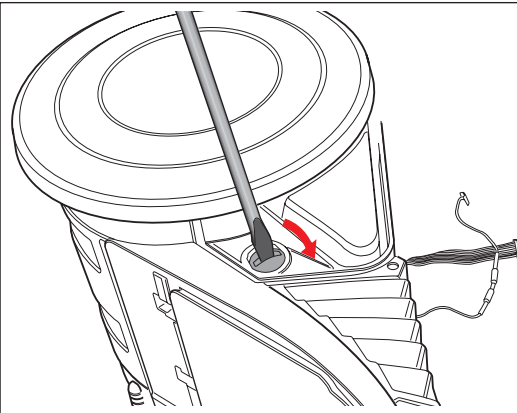
72 Locate the fancase retainer onto the motor bucket. Fit the four Torx T-10 screws.



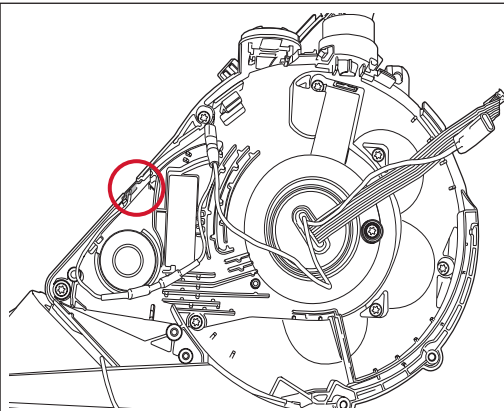
73 Fit the pre-filter assembly (DDM models must be fitted with correct orientation).



74 Force the pre-filter cover hinges onto the lugs on the chassis.

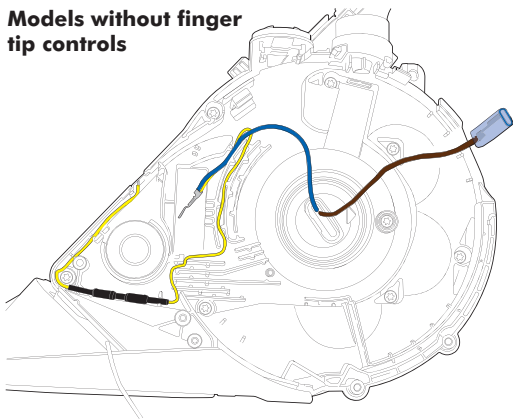


75 Tighten the fastener.

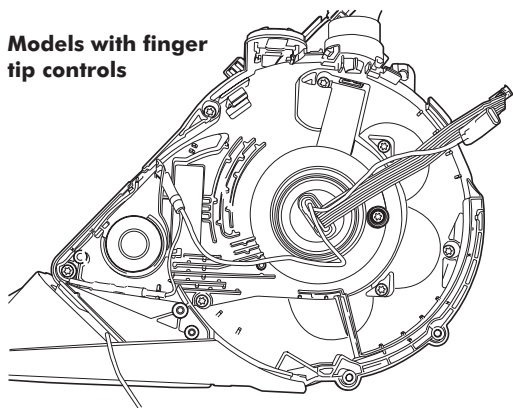


76 Locate the ESD tab into the detail on the side of the chassis.

Models without finger tip controls

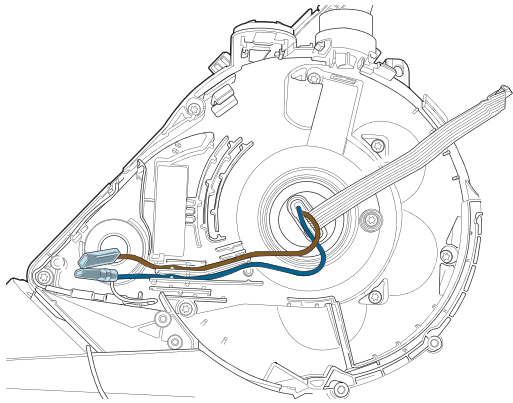


Models with finger tip controls

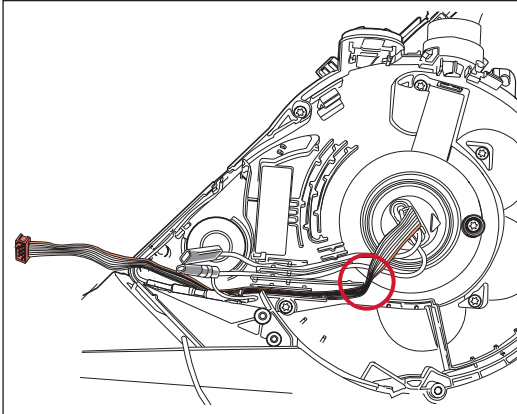


77 Locate the resistors into the retainers. Ensure the ESD wire is neatly dressed within the channel provided.

AC models with finger tip controls only

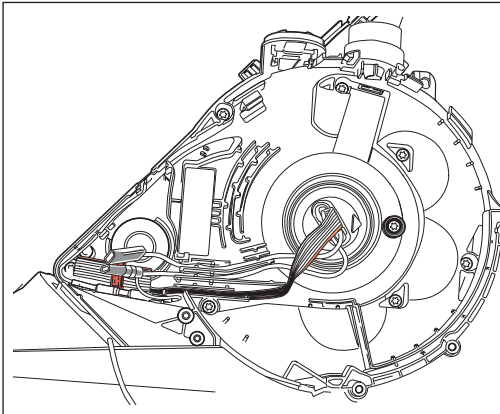


78 Locate the Live and Neutral wires into the channels provided.



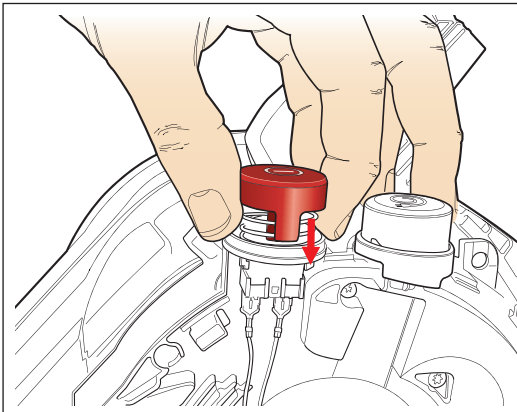
AC models with finger tip controls only

- 79** Locate the ribbon cable into the channel provided. The ribbon cable must be folded as shown.



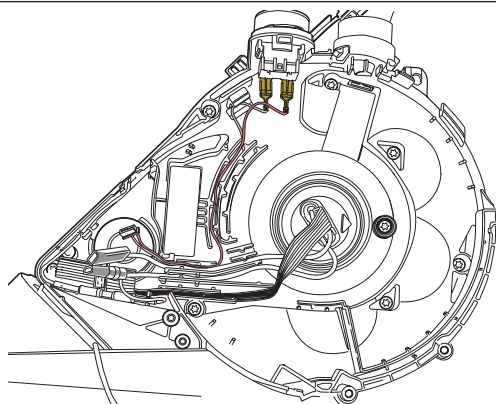
AC models with finger tip controls only

- 80** Fold the end of the ribbon cable as shown.



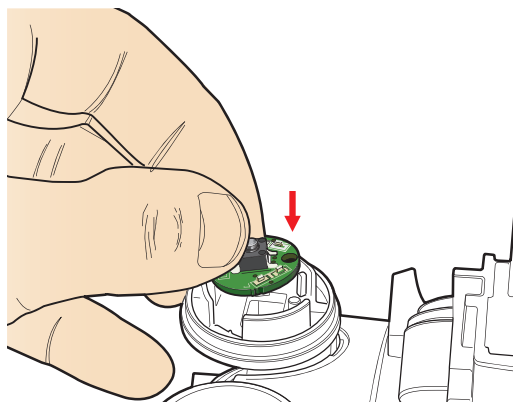
AC models only

- 81** If previously removed attach the switch loom to the switch (models with finger tip controls only). Locate the switch into the housing. Attach the live motor wire to the switch (models without finger tip controls only). Fit the spring and switch actuator.



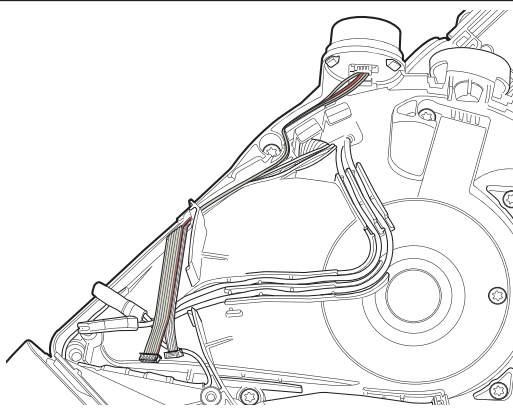
**AC models with finger
tip controls only**

- 82** Dress the switch loom into the channels provided.



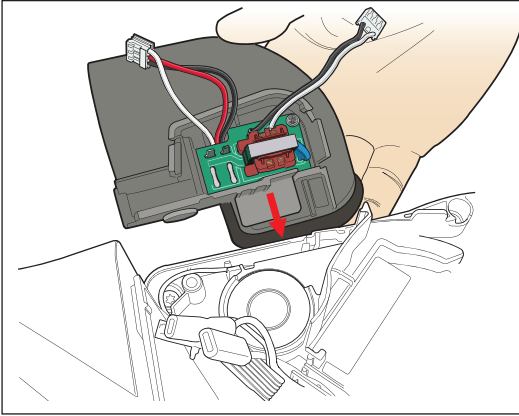
DDM models only

- 83** If previously removed locate the switch/PCB assembly onto the housing (the hole in the board locates over the pip in the housing). Fit the spring and switch actuator.

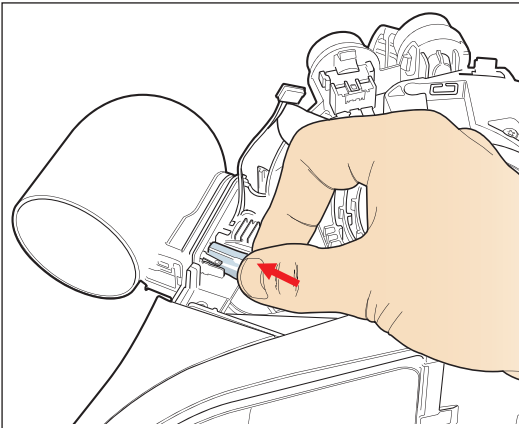


DDM models only

- 84** Attach the switch loom to the underside of the DDM switch. Dress the switch loom into the channels provided (to the side of the main ribbon cable).



- 85** Lower the cyclone inlet assembly onto the side of the product. Ensure no wires/ribbon cables are caught under the assembly and are free to move.

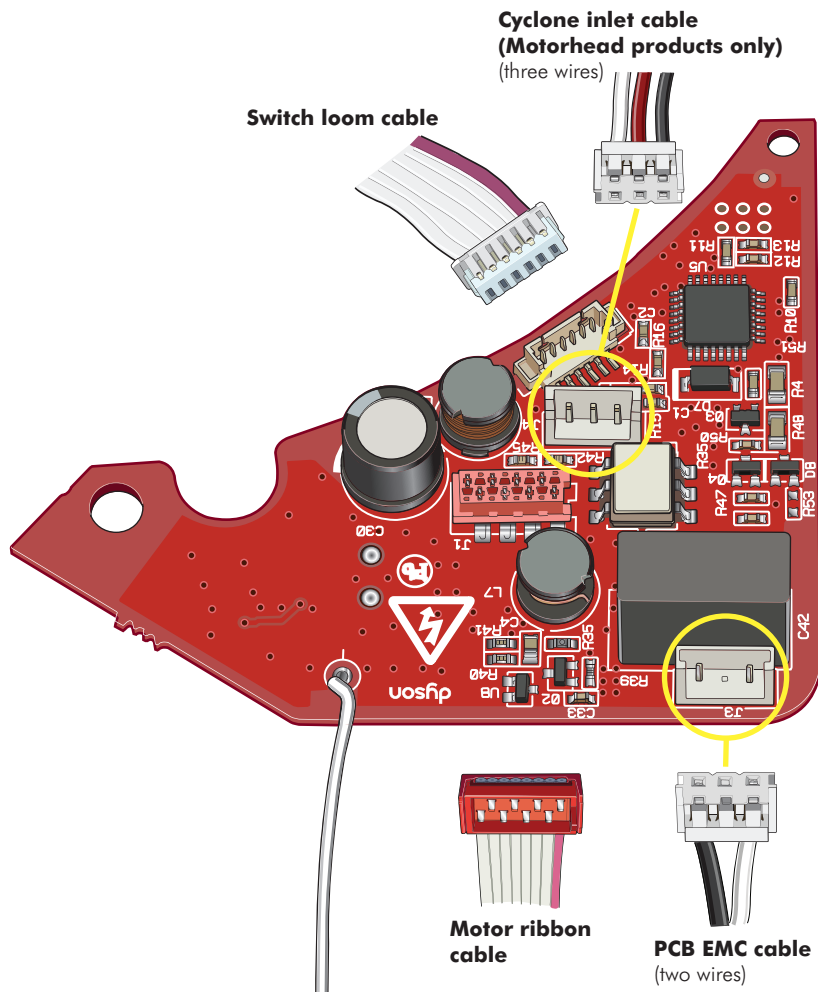


Models with finger tip controls only

- 86** Attach the motor wires to the PCB assembly EMC (right handside pins).

87 Attach all cables to the satellite assembly (models with finger tip controls only).

Please note: when attaching cables to the satellite assembly it is possible to fit two of the cables incorrectly. It is essential to ensure all cables are attached to the correct connectors as shown below.



After fitting the motor and attaching the cables to the satellite assembly the following parts should be fitted as previously shown:

Cable rewind assembly (pages 17-23).

Chassis, Satellite assembly, DDM assembly replacement - dismantle

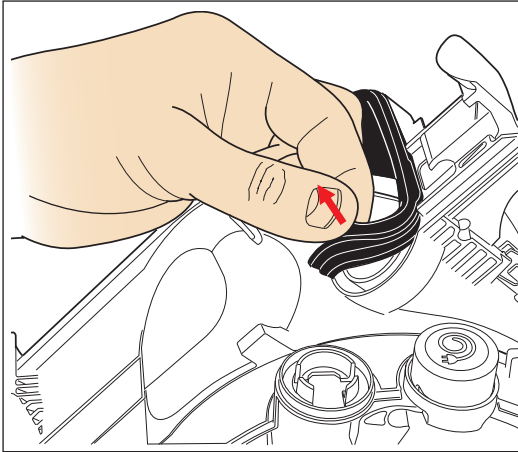
To replace the DDM assembly it is necessary to strip the product down as far as the chassis. This section therefore details how to replace a chassis on any model and ultimately how to replace the DDM assembly.

Please note: an AC product was used for the purpose of illustrating this section. The DDM assembly is only shown on the necessary sequences.

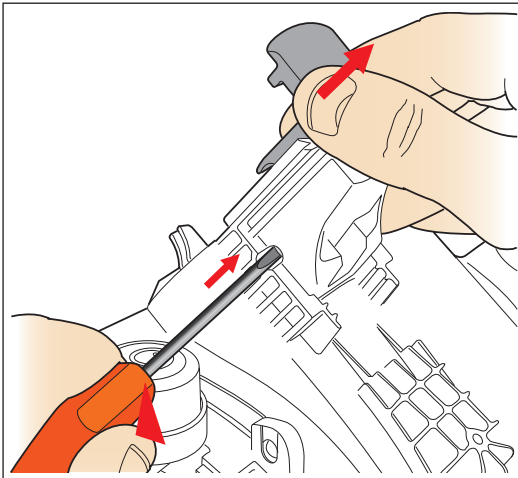
Before continuing the following parts should be removed as previously shown:

Cable rewind assembly (pages 9-16)

Switch & AC motor removal (pages 24-32).

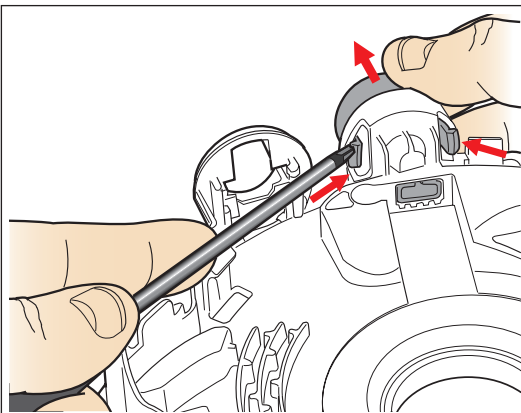


88 The manifold seal is 'spot'glued into the chassis and can be removed by pulling out of the chassis firmly.*

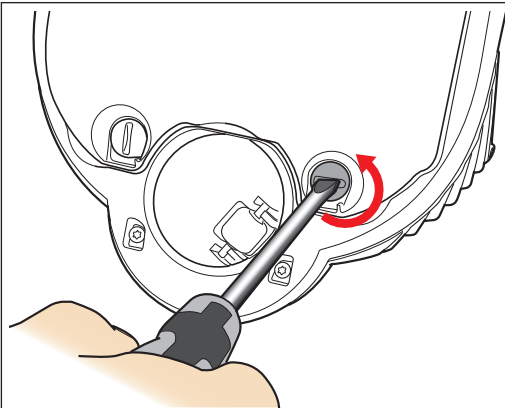


89 Remove the cyclone release catch by prising out the hinge points using a thin, flat bladed screwdriver.*

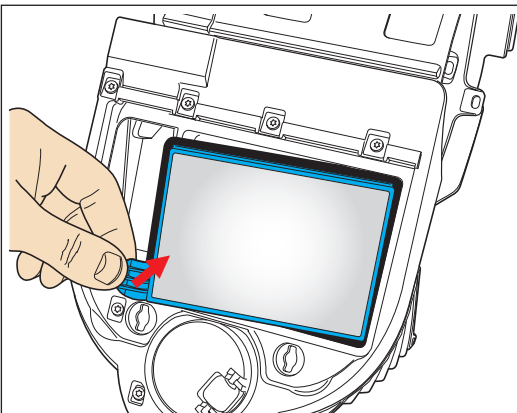
* Not necessary if replacing the DDM only.



90 Remove the cable rewind actuator from the side of the chassis.*

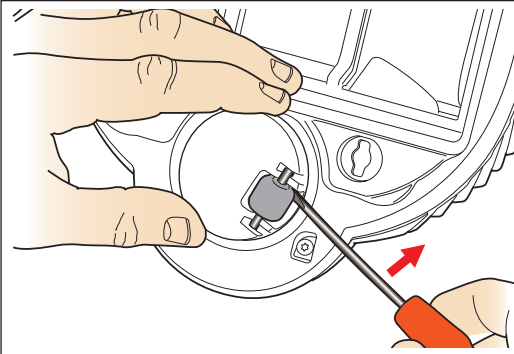


91 Undo the two fasteners and remove the post filter soleplate assembly from the underside of the chassis.

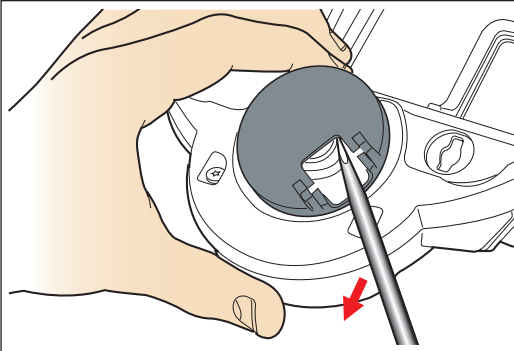


92 Remove the post filter assembly.

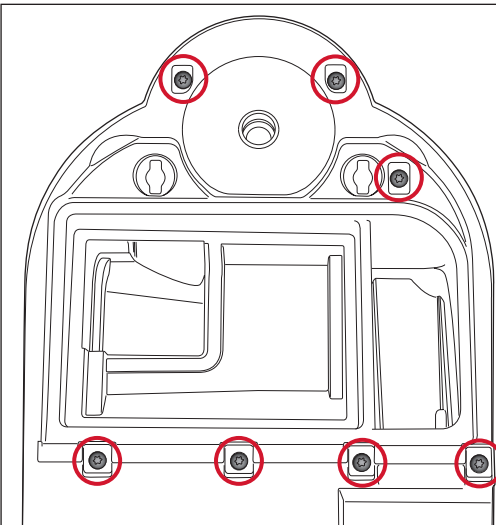
* Not necessary if replacing the DDM only.



93 Prise the castor wheel and axle out of the castor body.*

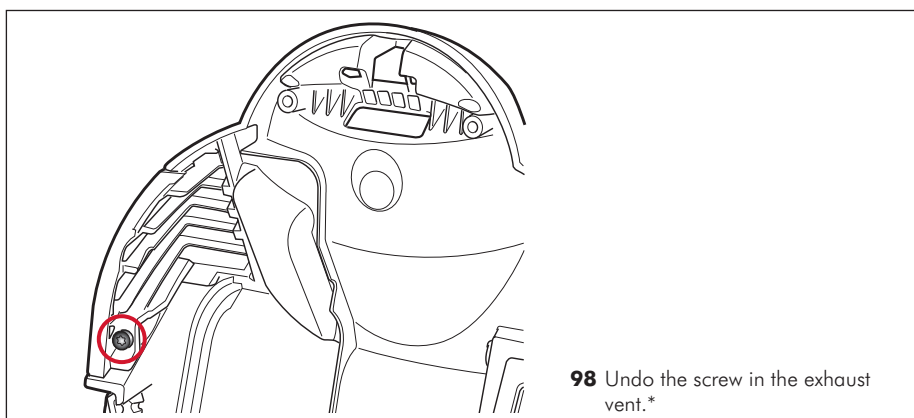
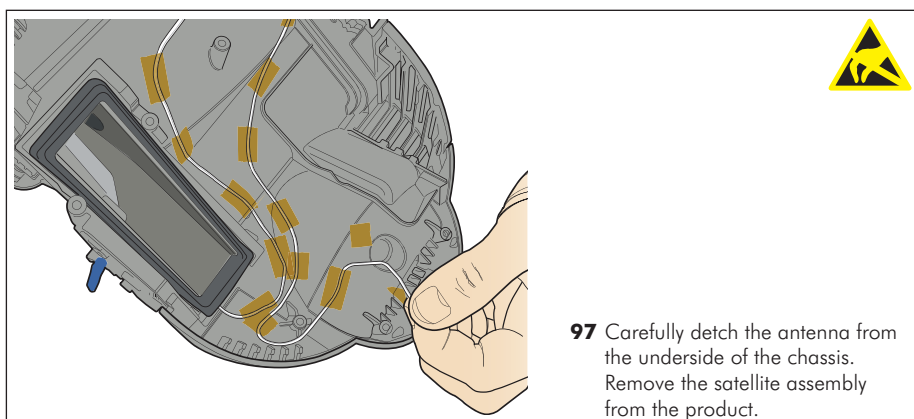
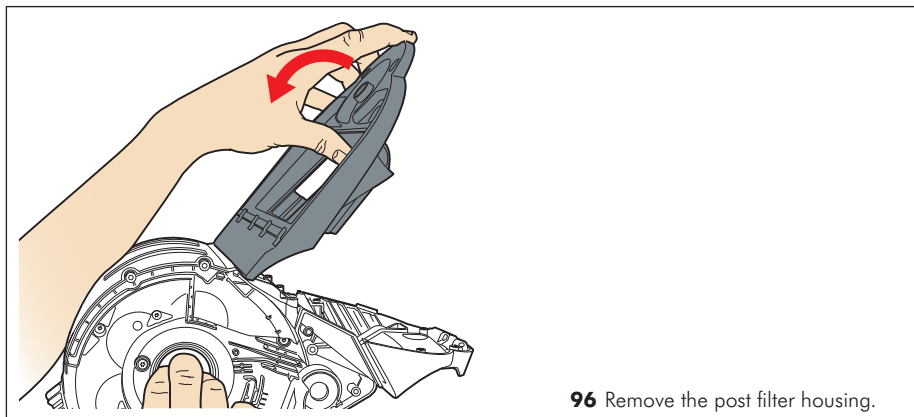


94 Prise the castor body off the base of the chassis.*

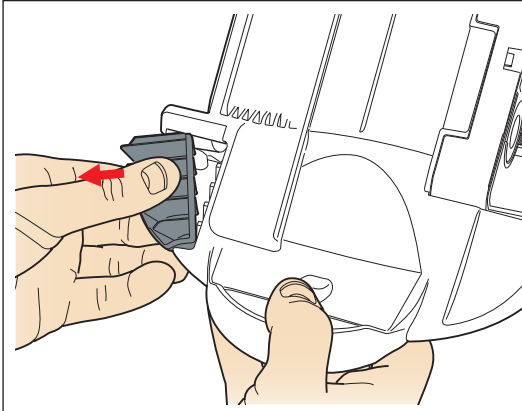


95 Undo the seven screws in the post filter housing.

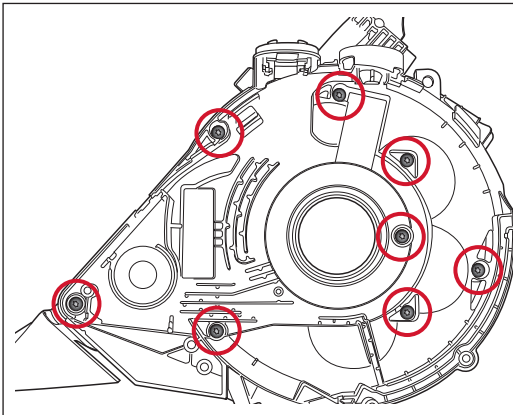
* Not necessary if replacing the DDM only.



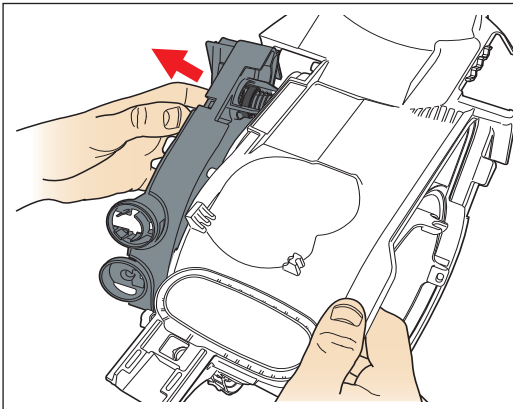
* Not necessary if replacing the DDM only.



99 Remove the exhaust vent from the side of the chassis.*

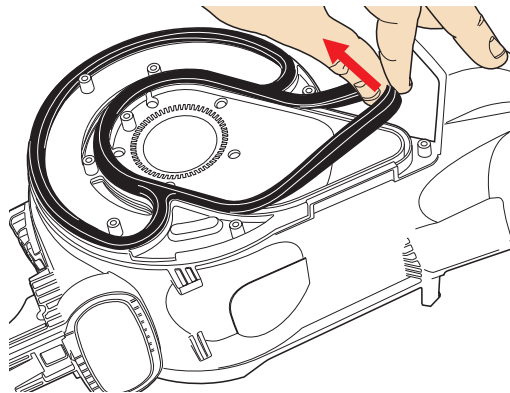


100 Remove the 8 screws in the side of the chassis.

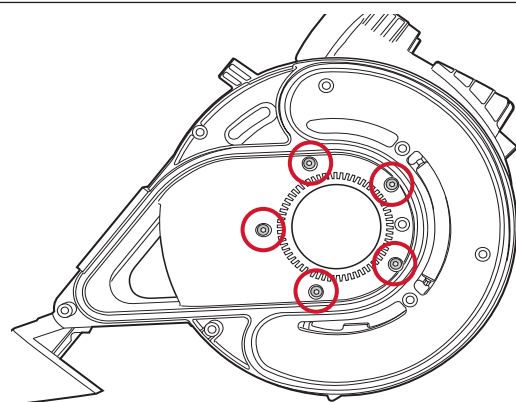


101 Remove the cable housing inner cover from the side of the chassis.

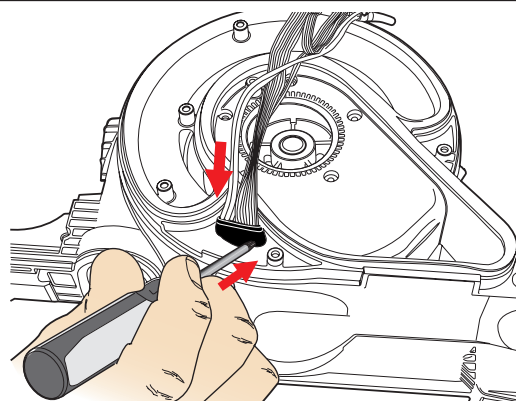
* Not necessary if replacing the DDM only.



102 Remove the exhaust seal from the side of the chassis.*



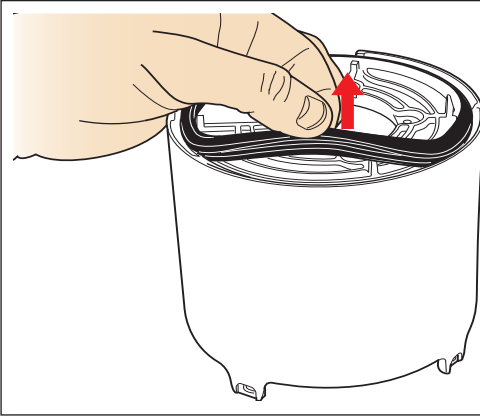
103 Undo the five Torx T-10 screws in the side of the chassis.



DDM models only

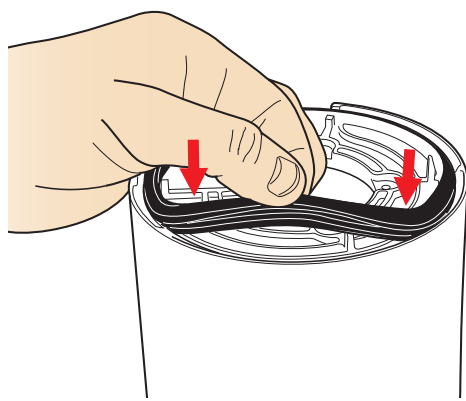
104 Release the DDM loom grommet from the side of the chassis. Remove the DDM assembly or AC motor bucket from the chassis.

* Not necessary if replacing the DDM only.

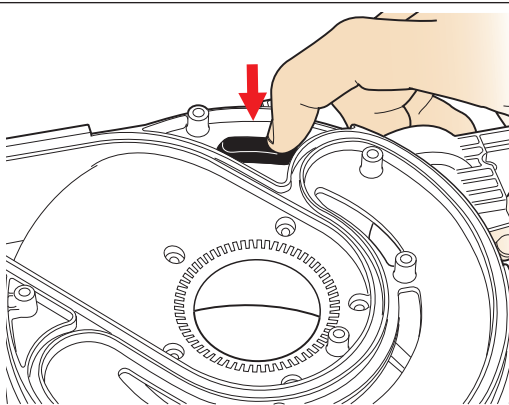


105 Remove the motor bucket outer seal from the AC motor bucket or DDM assembly.

Chassis, Satellite assembly, DDM assembly replacement - assemble

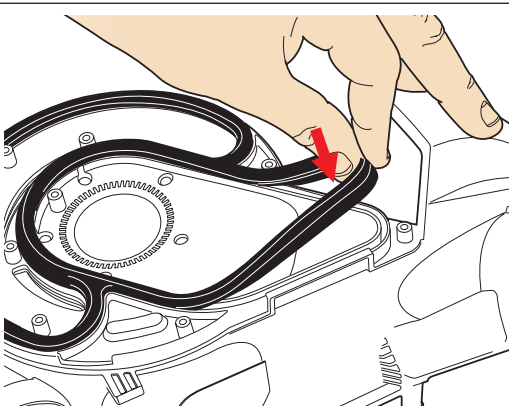


- 106** Fit the motor bucket outer seal onto the top of the AC motor bucket or DDM assembly.

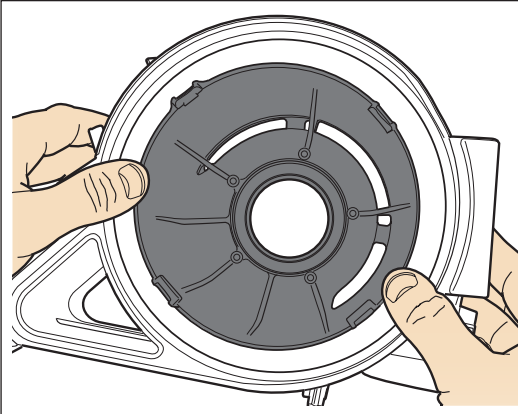


AC models only

- 107** Ensure the cable grommet plug is fitted into the side of the chassis.

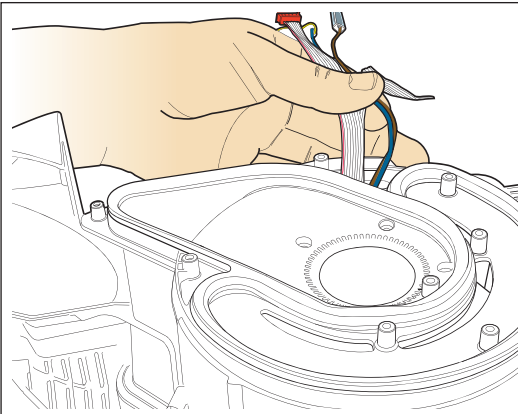


- 108** Fit the exhaust seal onto the chassis. Ensure all edges are seated correctly.



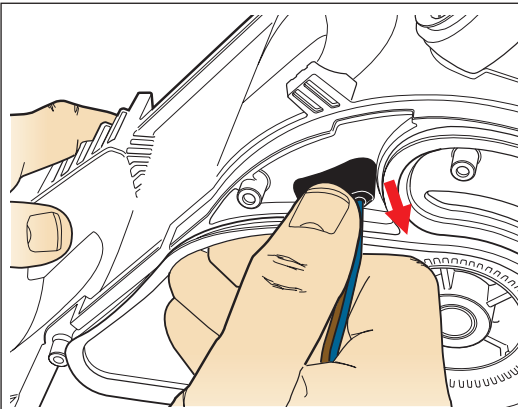
AC models only

- 109** Lower the AC motor bucket into the chassis. The windows in the bucket should align with those in the chassis. Fit the five screws.



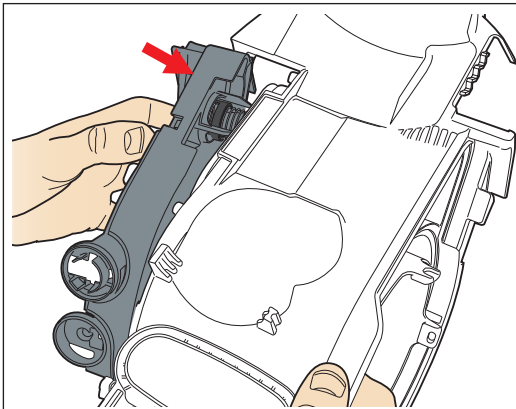
DDM models only

- 110** Locate the wires from the DDM assembly through the slot in the chassis. Fit the five screws.

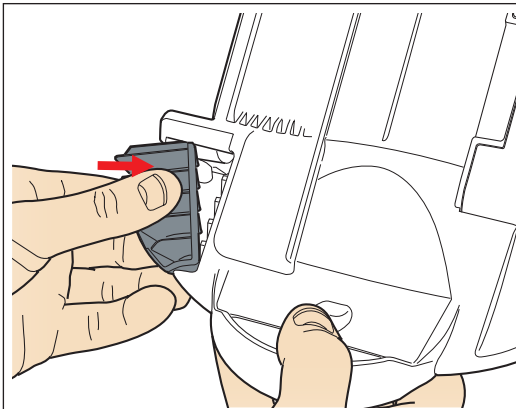


DDM models only

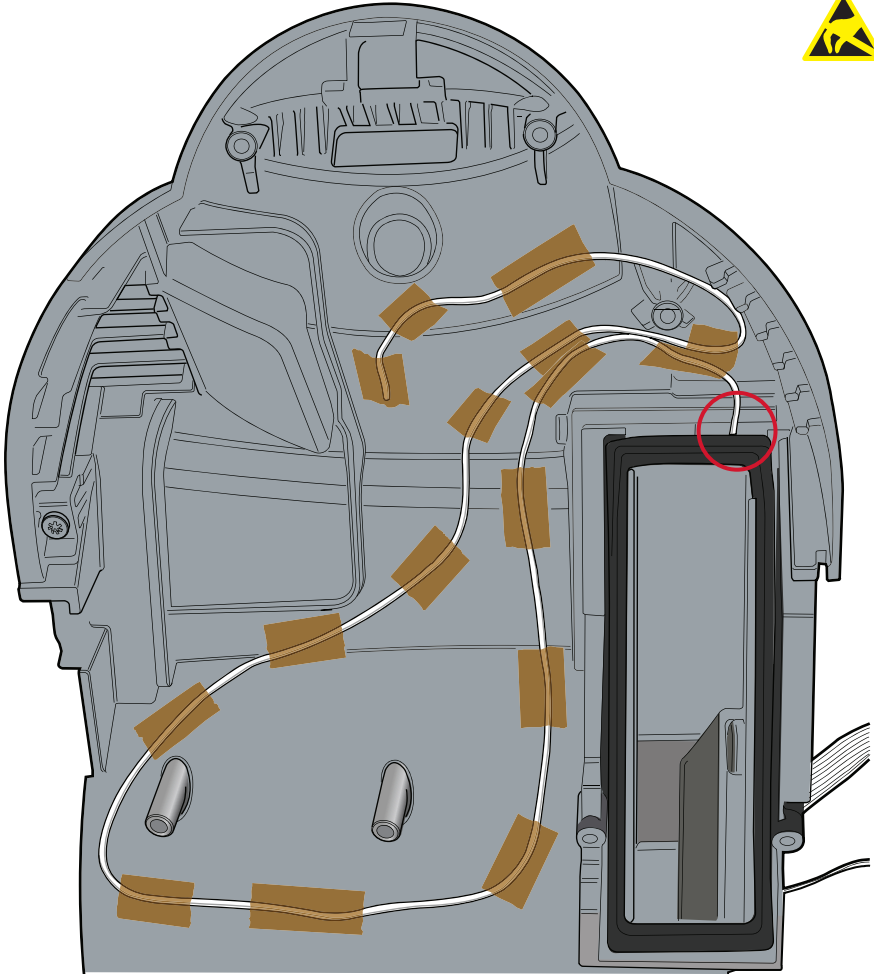
- 111** Ensure the grommet is pulled through and seated correctly against the outside of the chassis.



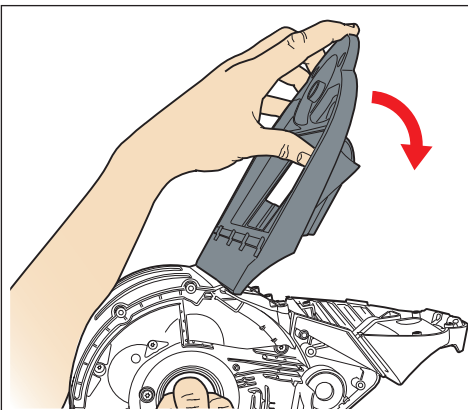
- 112** Fit the cable housing inner cover assembly onto the side of the chassis.
Fit the eight screws.



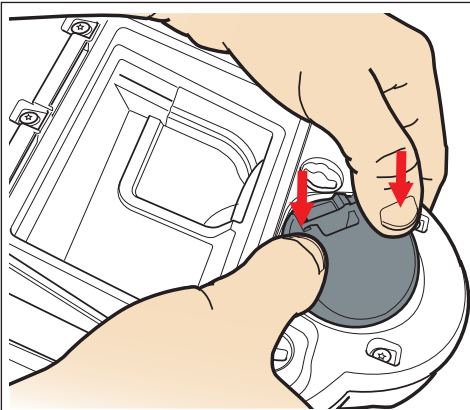
- 113** If previously removed clip the exhaust vent onto the chassis.
Fit the screw.



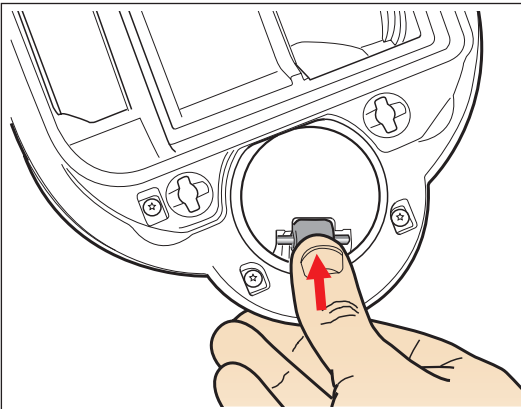
- 114** Locate the end of the satellite assembly antenna through the slot in the front of the chassis. Pull the antenna through and dress as shown above on the underside of the chassis. The antenna should be located into any retaining clips provided and held in place with electrical tape.



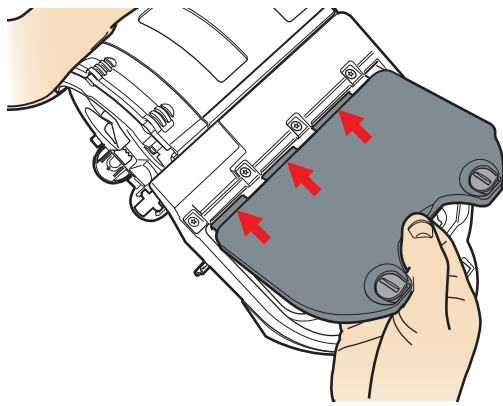
115 Lower the post filter housing onto the base of the chassis. Fit the seven screws.



116 If previously removed firmly press the castor body onto the base of the chassis.

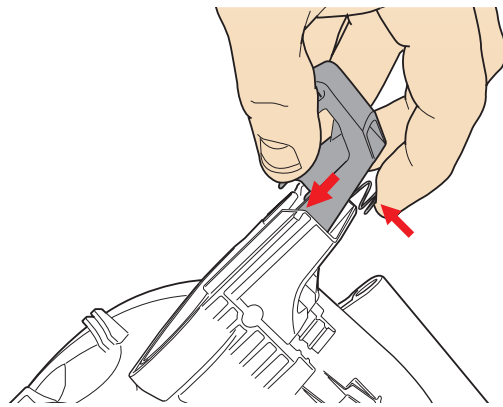


117 Press the castor wheel and axle into the castor body.

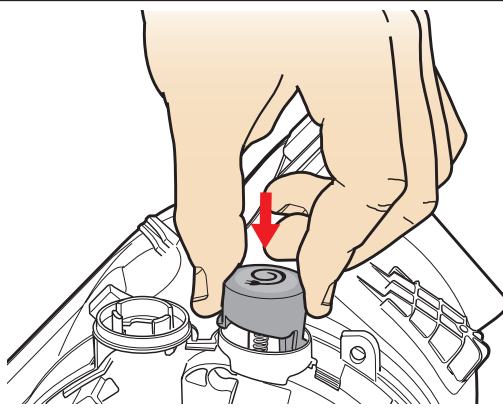


118 Fit the post filter assembly into the underside of the chassis.

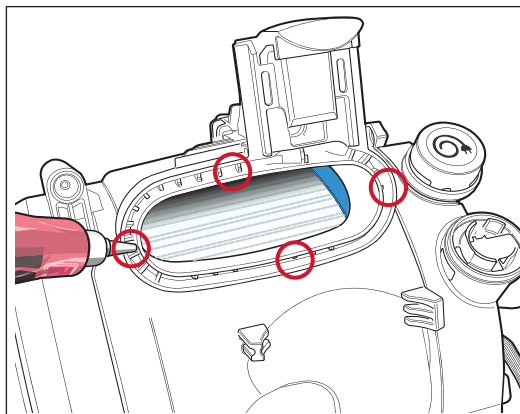
Fit the post filter cover. Tighten the fasteners.



119 Lower the cyclone release catch and spring into the top of the chassis. Ensure the legs of the release catch are fully engaged into the hinge points of the chassis.

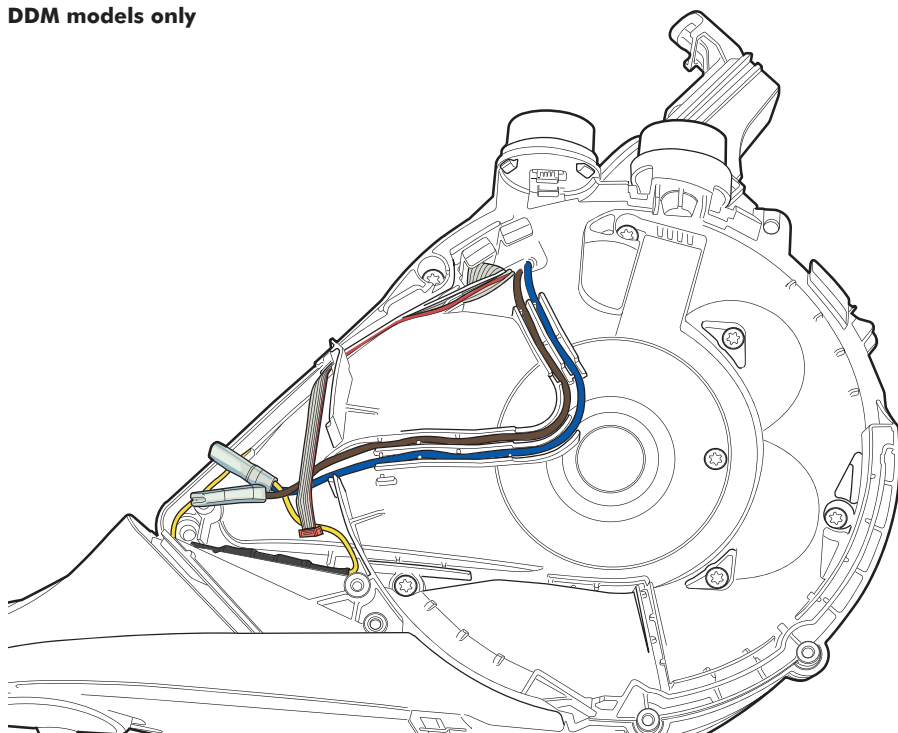


120 Fit the cable rewind actuator and spring.



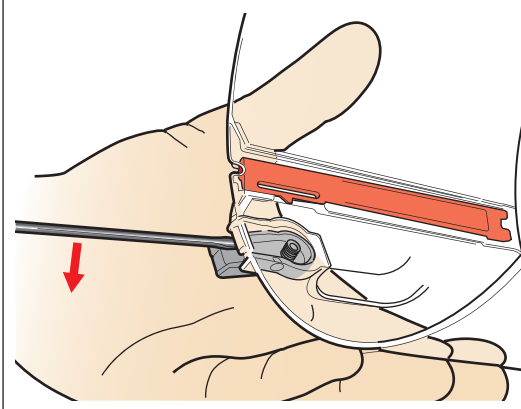
121 Apply several spots of glue around the manifold.
Fit the manifold seal.

DDM models only

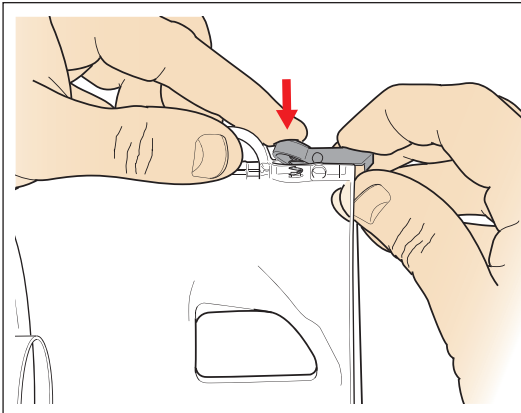


122 All wires and cables should be dressed in all channels provided. Ensure the ribbon cable is neatly folded and the ends laid flat to avoid any possibility of damage from the cyclone inlet assembly.

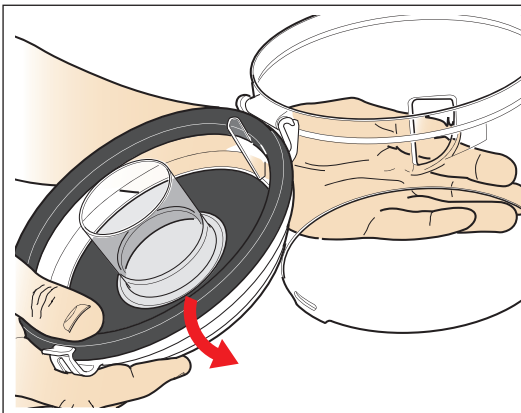
Sub-assemblies - Bin assembly



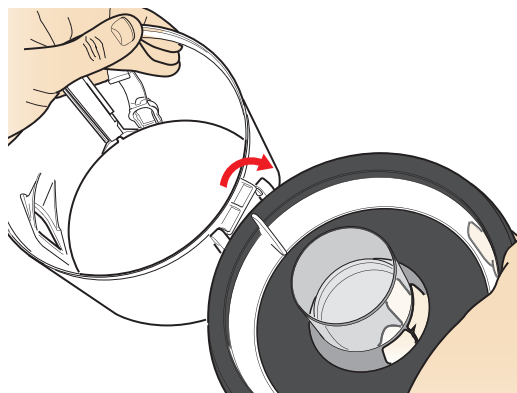
123 The front bin catch can be removed from the bin assembly by gently prising off with a thin flat bladed screwdriver.



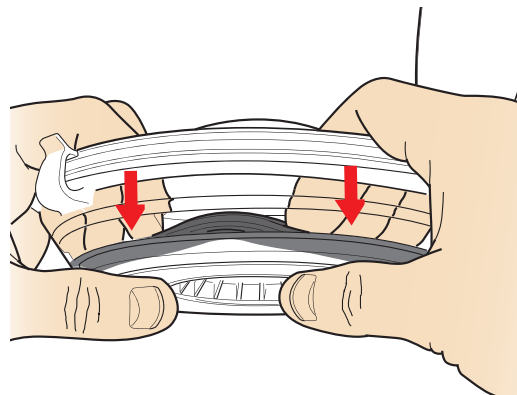
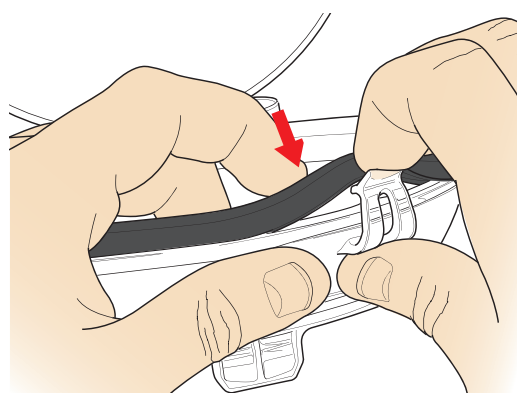
124 To fit, locate the spring onto the pip on the catch. Firmly press both parts onto the bin.



125 The bin base assembly can be removed by firmly prising off the bin assembly.

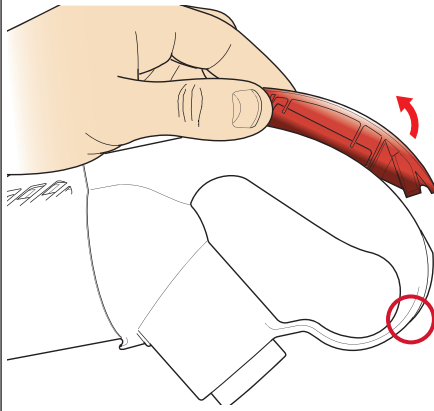


- 126** To fit a bin base assembly locate one of the legs on the assembly onto the hinge point on the bin. Once located firmly press the other leg into place.



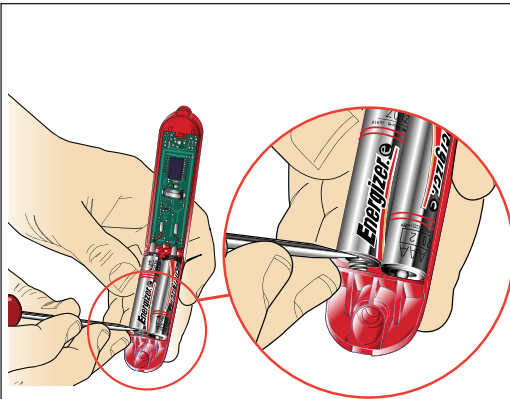
- 127** The bin base seal and FDC/IDC seal can be replaced by firmly pulling out of the bin base assembly. When fitting, ensure all seals are adequately seated.

Sub-assemblies - Wand/Hose assembly



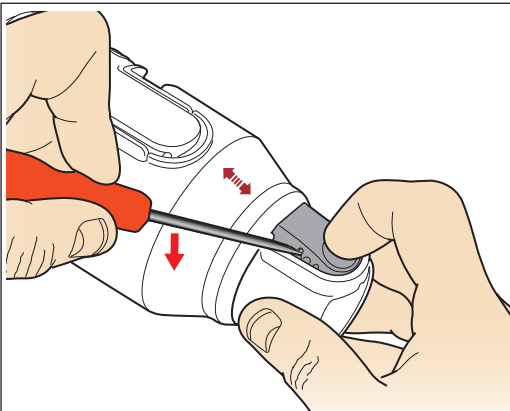
Models with finger tip controls only

- 128** To replace the handle cover assembly or batteries undo the Philips screw and remove the handle.

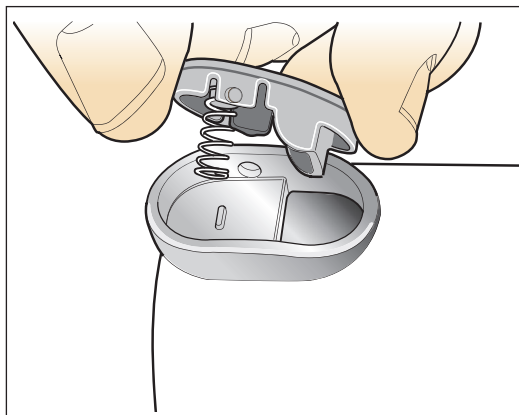


Models with finger tip controls only

- 129** When replacing the batteries ensure they are fitted correctly and aligned with the connections. Fit the cover and Philips screw.
- Note:** If the handle cover assembly has been replaced the product must be tuned. See the Tuning section (page 8) for details.

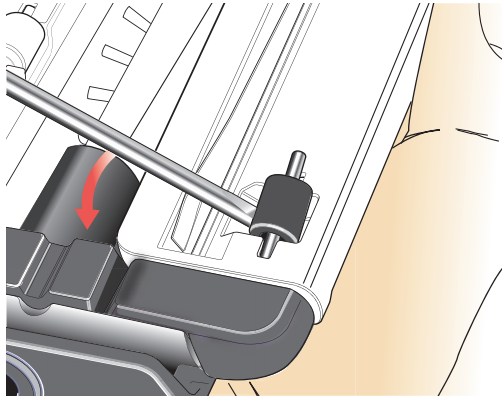


- 130** The swivel catch can be removed from the end of the hose or wand by prising off with a thin, flat bladed screwdriver.

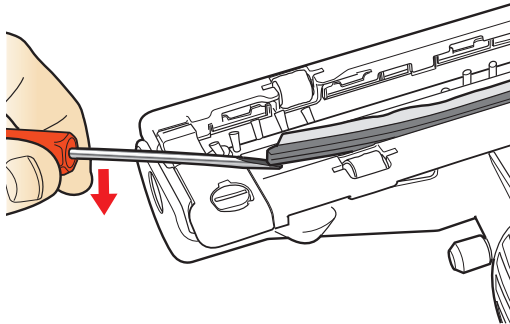


- 131** To fit, locate the spring onto the rear of the swivel catch. Firmly press the catch into the retainers on the hose or wand.

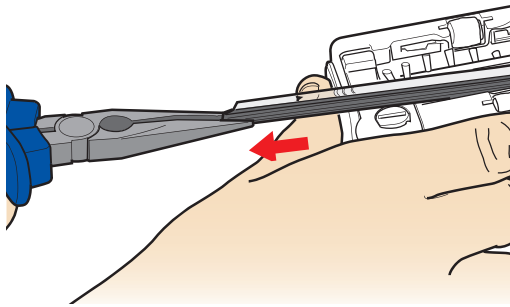
Sub-assemblies - Turbine/Motorhead assembly



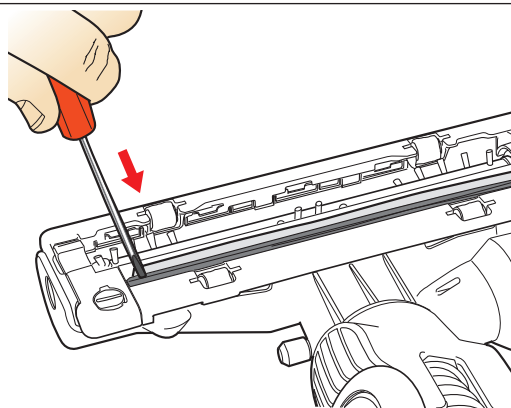
- 132** The soleplate wheels or axles can be removed by prising out from the brush housing.
To fit press firmly into place.



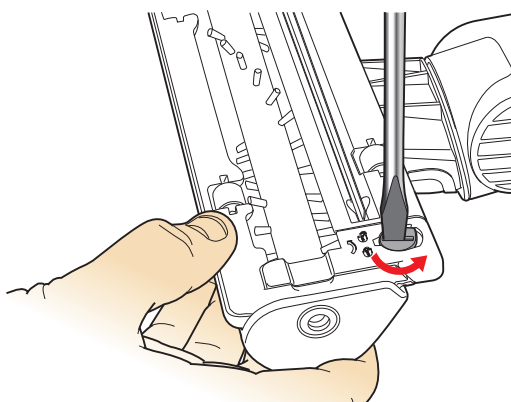
- 133** The flicker strip can be replaced by prising the end out from the brush housing.



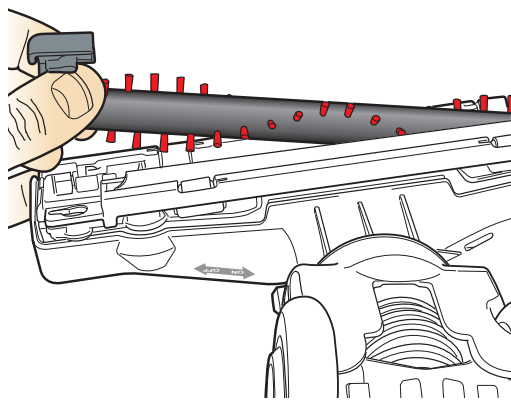
- 134** Once the end is prised out the flicker strip can be removed by pulling out with pliers.



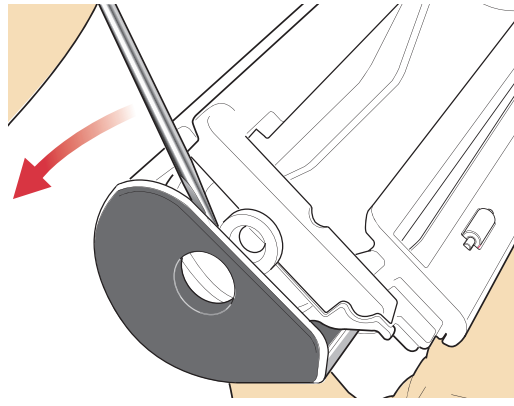
135 To fit, slide the flicker strip into the channel under the retaining catches. Clip the end under the retaining catch.



136 To replace the end cap or brushbar assembly, undo the endcap fastener.

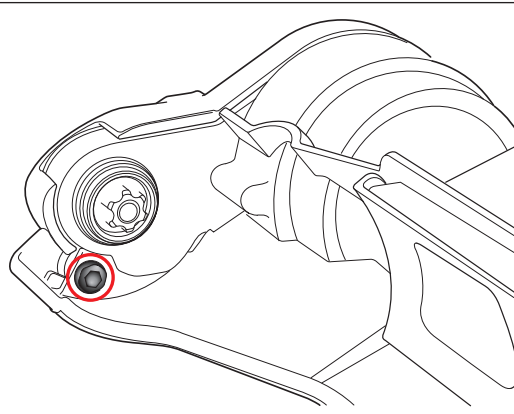


137 Lift the endcap and brushbar assembly out of the brush housing.



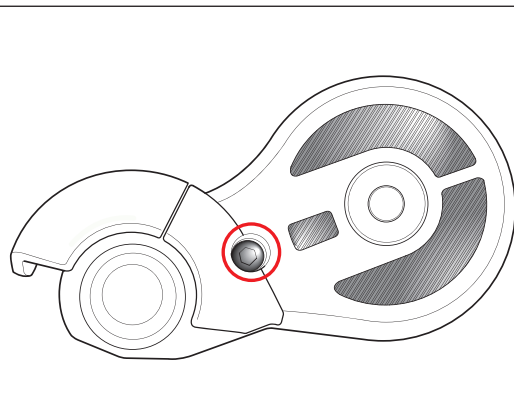
Turbine head only

- 138** To replace the brush housing, axial turbine assembly or belt cover assembly, prise the brush housing out with a screwdriver.



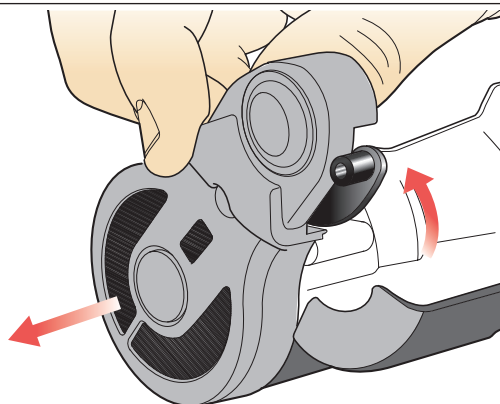
Turbine head only

- 139** Remove the short screw from the inside of the axial turbine assembly.



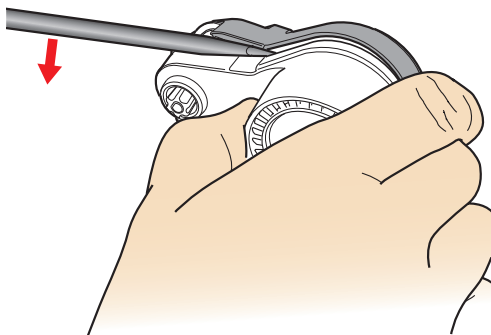
Turbine head only

- 140** Remove the screw from the outside of the axial turbine assembly.



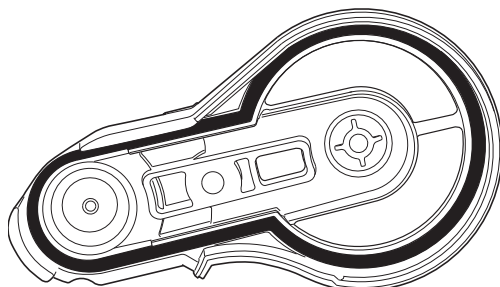
Turbine head only

- 141** Remove the axial turbine assembly from the side of the floor tool.



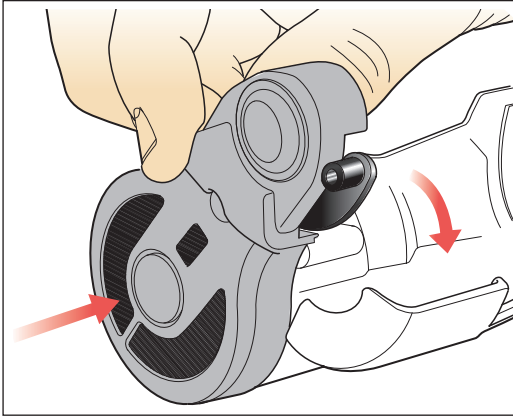
Turbine head only

- 142** Prise the belt cover assembly off the axial turbine assembly.



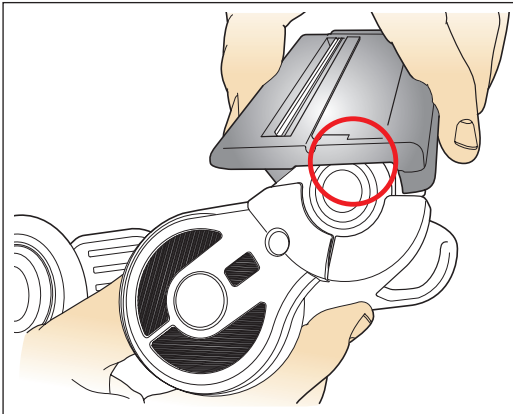
Turbine head only

- 143** Ensure the seal is fitted adequately within the belt cover assembly before fitting onto the axial turbine assembly.



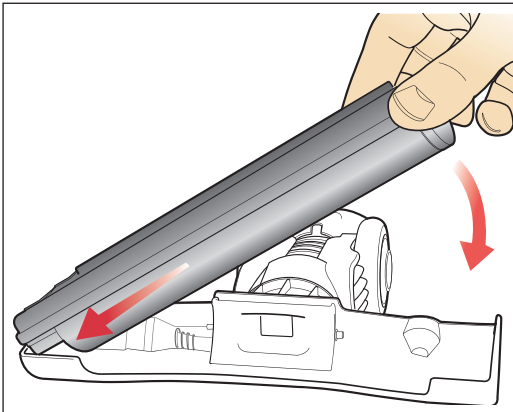
Turbine head only

- 144** Press the belt cover assembly onto the axial turbine assembly. Locate the axial turbine assembly into the side of the floortool. Fit the two screws (short screw on the inside).



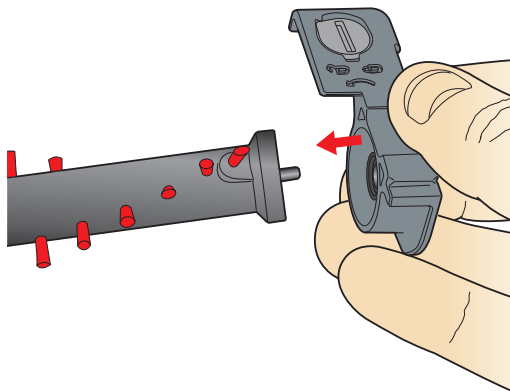
Turbine head only

- 145** Locate the end of the brush housing assembly over the detail on the axial turbine assembly.

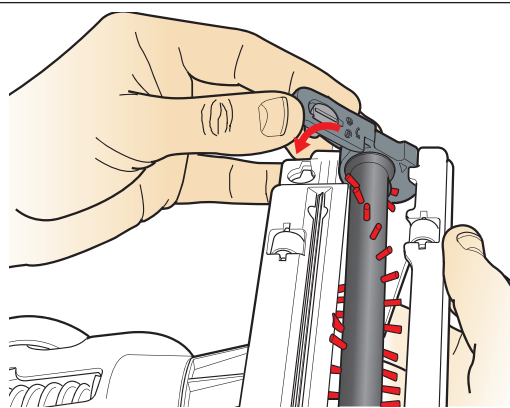


Turbine head only

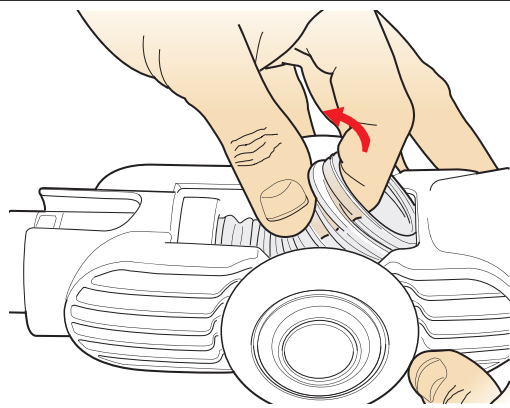
- 146** Lower the brush housing onto the floortool.



147 Locate the endcap assembly onto the brushbar assembly.

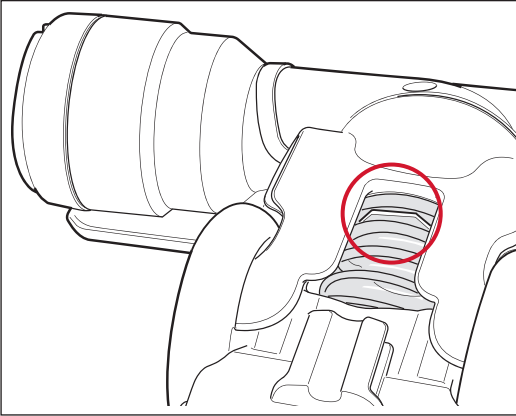


148 Lower the endcap assembly and brushbar assembly into the floortool. Tighten the fastener.



Turbine head only

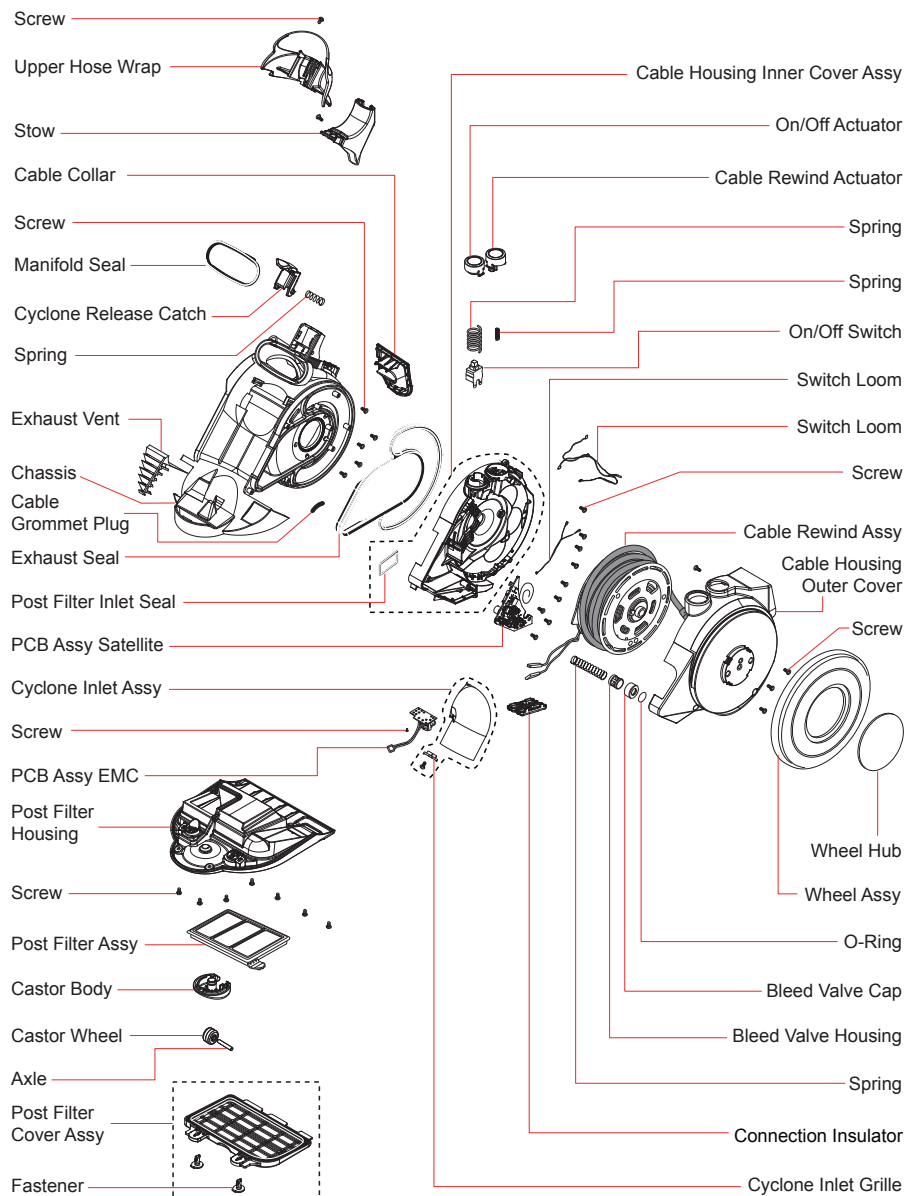
149 The hose can be replaced by firmly pulling out of the neck.



Turbine head only

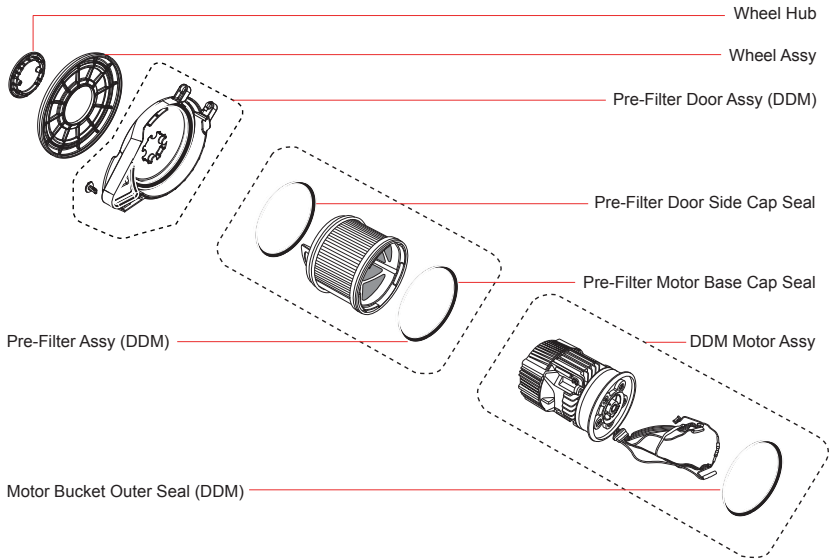
- 150** When fitting the hose note that there are locating tabs of different sizes on the hose. These must be aligned correctly with the neck.

Main body

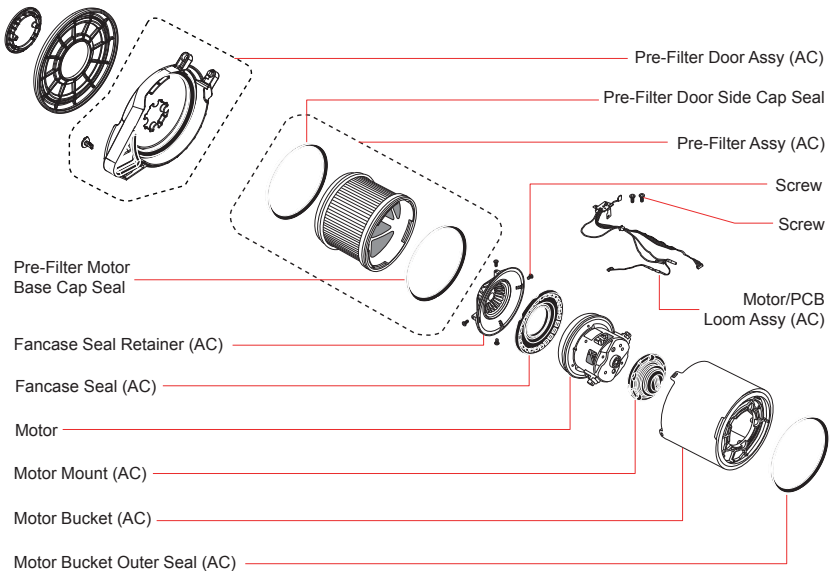


Motor assembly

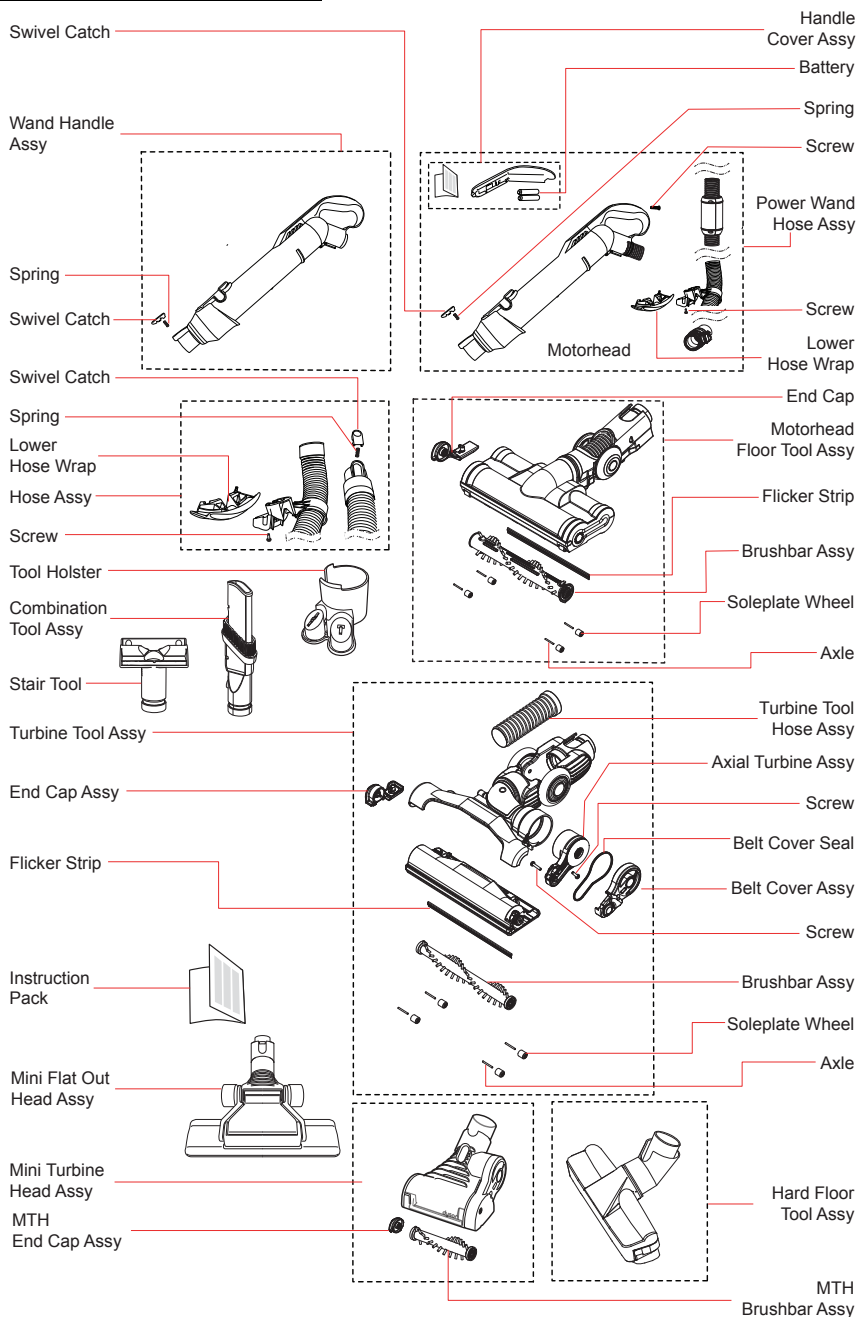
DC22 Motor (DDM)



DC22 Motor (AC)



Hose, wand and floor tools



Cyclone and bin assembly

