

**DC
25**

dyson



service manual

Issued Feb 08

This manual is written specifically for Dyson trained engineers and covers the full DC25 range. The service instructions assume the engineer has the approved tools and test equipment with them.

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dyson ball

No wheels. No more awkward moves.

Dyson Ball™ technology

Because DC25 uses a ball and not fixed wheels, it turns on a sixpence. The motor sits inside the ball so the machine has a low centre of gravity, making it even easier to steer

Quick draw Telescope Reach™ wand

Single action wand with instant 16ft reach for stairs and high-reach cleaning

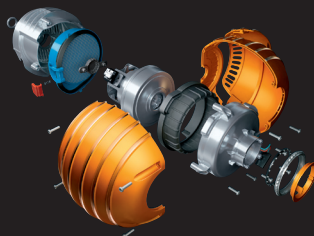
Lightweight

Weighs only 7.2 kilos



Motorised brush bar

Powerful bristles remove dirt and pet hair from carpets.



Quick draw Telescope Reach™ wand

For cleaning awkward areas.



Hygienic and quick to empty

Just push the button at the top of the cyclone and the dirt empties from the bottom.

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.

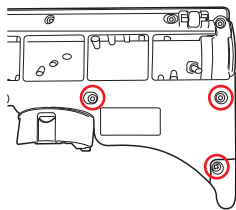
Insulation test

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.**

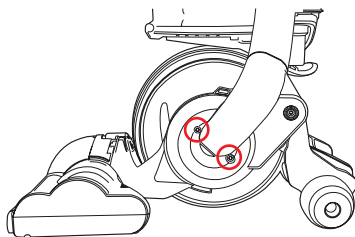
These tests are vital to avoid any possibility of personal injury to the end user.

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

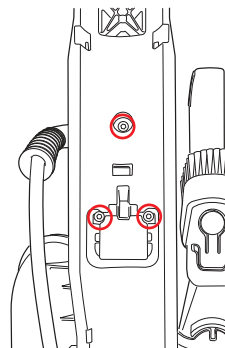
Insulation test points:



Test the 3 screws highlighted in the cleaner head assembly.



Test the 2 screws highlighted in the upright switch cover.



Test the 3 screws highlighted in the rear of the duct assembly.

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 components must be visually inspected:

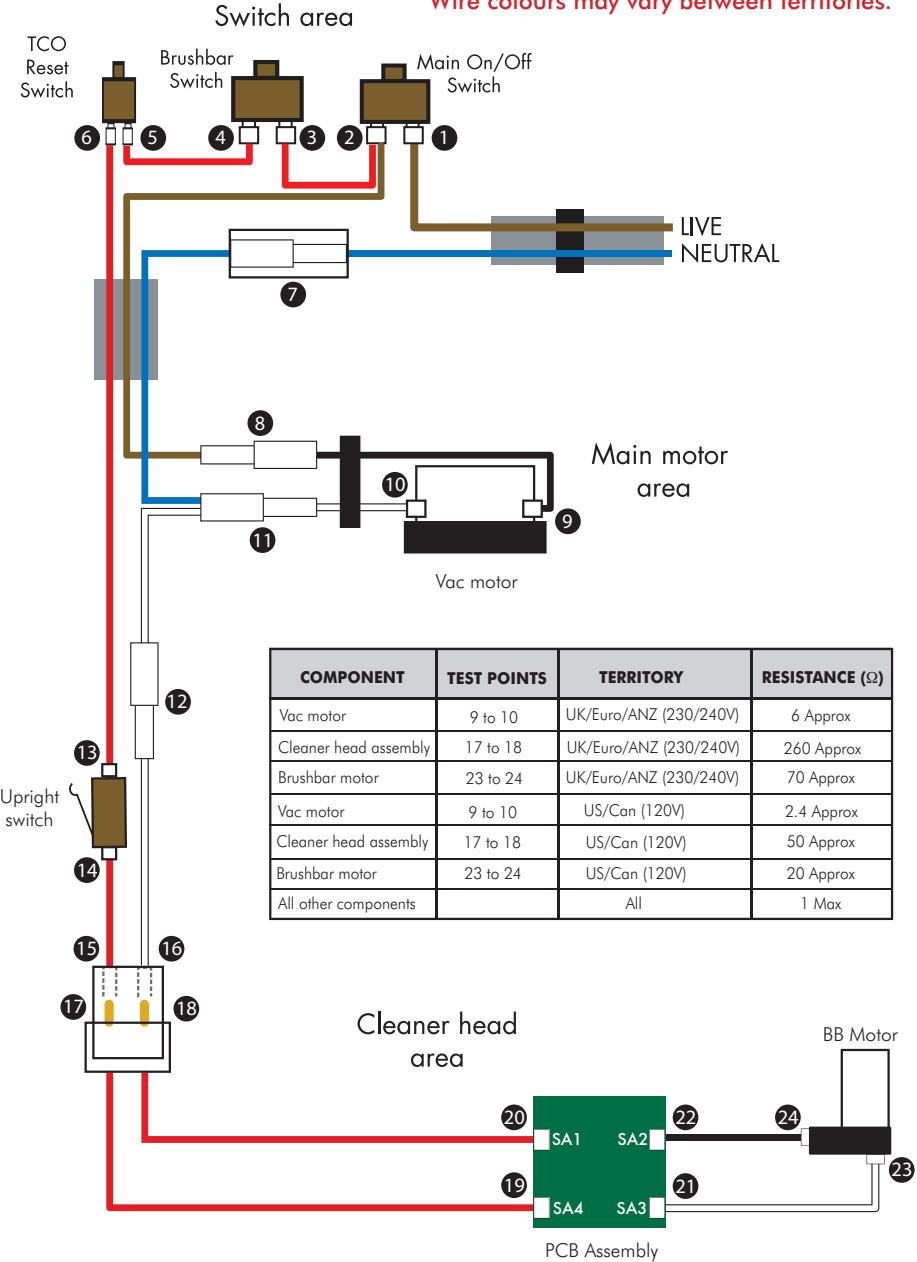
- Wiring behind the upright switch cover.
- All wiring behind the switch housing.
- All wiring within the cleaner head assembly.

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.

Wiring Schematic

Wire colours may vary between territories.



Electrical fault diagnosis

When DC25 is switched on in the upright position, the brushbar motor is off. Tilting the machine into normal vacuuming mode will automatically operate the upright switch, turning the brushbar motor on. The brushbar motor can be switched off using the brushbar switch.

The vacuum motor of DC25 is fitted with a heat sensitive Thermal Cut-Out (TCO). This will shut the motor down for up to 60 minutes if it reaches a temperature >96 degrees celcius. Excessive temperatures within the motor are usually caused by machine/filter blockages.

The switch housing is fitted with a TCO reset switch that will shut the brushbar motor off if it is put under an excessive load (blocked/seized brushbar etc.). The cause of the shut down should be cleared and the TCO reset by pressing the brushbar switch button. If the cause of the brushbar motor cut-out is not rectified the TCO will repeatedly reactivate, preventing the brushbar from turning.

Electrical fault diagnosis

Note: all 'connection' numbers and 'continuity' checks refer to the illustration and table on page 3.

No machine power (vac motor and brushbar motor off)

- 1) Check for damage/electrical failure to the plug, fuse and powercord.
- 2) Check for a loose connection at points 1, 2 and 7.
- 3) Check the mechanical actuation of the on/off switch.
- 4) Test the resistance of the powercord, fuse (UK only), on/off switch and the neutral wire of the internal cable (points 7 to 11).

No power to the vac motor (brushbar motor on in tilt position)

- 1) Check for a loose connection at points 8, 9, 10 and 11.
- 2) Test the resistance of the motor cable assembly (points 8 to 9 and 10 to 11) and across the vac motor (points 9 to 10).
- 3) Check the vac motor brushes, windings, commutator etc. for signs of wear or damage.

No power to the brushbar motor (vac motor on)

- 1) Ensure the TCO reset button has been pressed.
- 2) Check for a loose connection at points 3, 4, 5, 6, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24.
- 3) Check the mechanical actuation of the brushbar switch and upright switch.
- 4) Check the brushbar motor and PCB assembly for signs of damage/wear.
- 5) Test the resistance of the brushbar switch (points 3-4), the switch/TCB cable (points 4 to 5), the internal cable (red wire only points 6-13), the upright switch (points 13-14), the yoke loom (points 12 to 16 and 14 to 15) and the cleaner head assembly (wires from the plug to the PCB only, points 17 to 19 and 18 to 20).

If no faults are found replace the cleaner head assembly.

Brushbar motor on in upright position (switches off with brushbar switch)

- 1) Check the mechanical actuation of the upright switch. Ensure the micro switch isn't jamming or sticking.

Brushbar switch does not switch brushbar motor off in tilt position

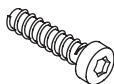
- 1) Check for correct location of the brushbar reset arm (see item 121, page 47).
- 2) Check the mechanical actuation of the brushbar switch.
- 3) Test the resistance of the brushbar switch (points 3-4).

General notes

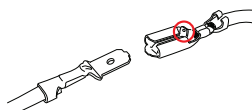


Disconnect the machine from the electrical outlet at all times during repair and test. Failure to do so could result in electric shock or personal injury.

Wire colours may vary between territories.



All screws used in DC25 are Torx T15 unless otherwise stated.

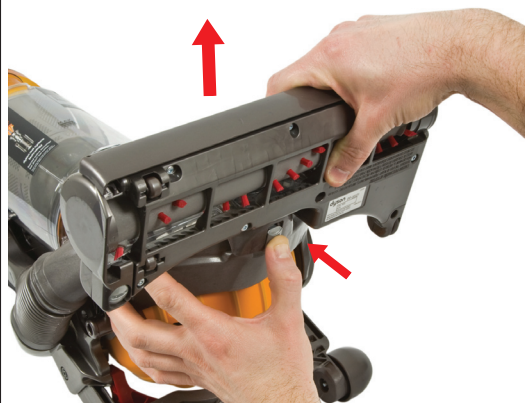


Some female terminal clips used in DC25 contain a locking mechanism. The release pip will need to be activated before separation from the male terminal can occur.

Recommended tools to repair DC25:

Torx T-15 screwdriver
Philips screwdriver
Large flat bladed screwdriver
Terminal screwdriver
Long/needle nosed pliers

Motor and yoke assembly replacement - removal



- 01** Slide the catch on the underside of the cleaner head. Remove the cleaner head from the product.



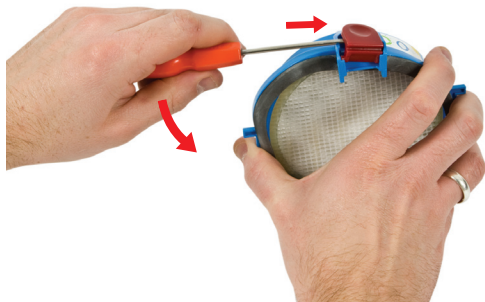
02 Remove the four screws from the ball assembly.



03 Remove the two halves of the ball assembly.



04 Press the release button and remove the post filter assembly.



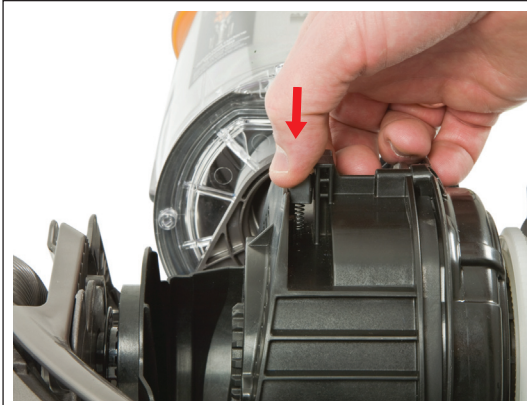
- 05** If it needs replacing the post filter button can be prised out of the post filter assembly.



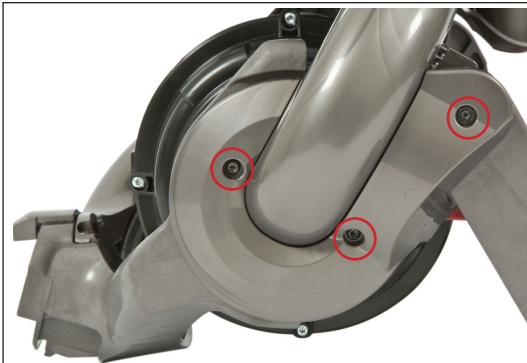
- 06** To fit, align the button onto the spring and push firmly into the retainers.



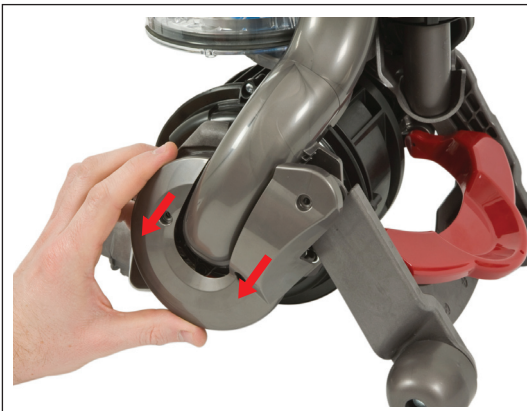
- 07** If the motor bucket spring cap needs replacing prise it out of the motor bucket.



08 To fit, locate the spring onto the retainer. Locate the cap onto the spring. Push the cap down onto the catches.



09 Remove the three screws in the upright switch cover.



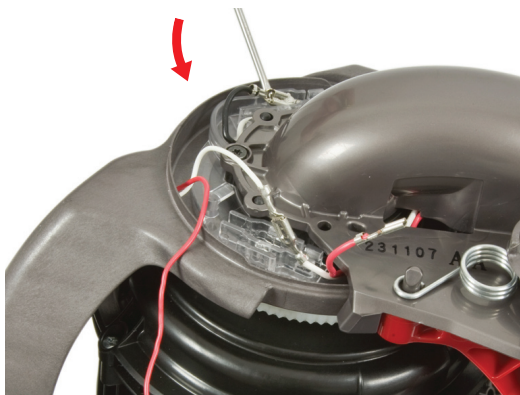
10 Remove the upright switch cover.



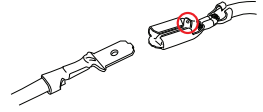
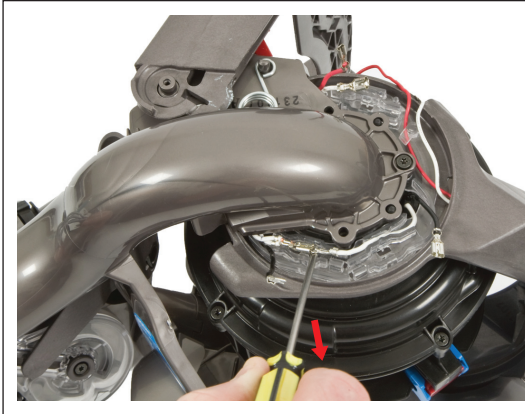
11 Detach the wires from the upright switch.



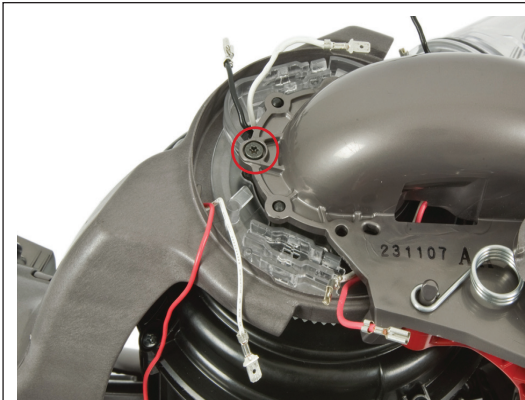
12 Release the wires from the upright switch housing.



13 Carefully release all wires and connections from the retainers on the yoke loom carrier.



14 Separate all connectors.



15 Undo the screw on the side of the duct.



16 Firmly pull the lower duct hose off the side of the product.



17 Remove the long screw behind the lower duct hose.



18 Remove the yoke spigot from the side of the product.



19 Release the yoke and motor assemblies from the duct assembly.



- 20** Remove the yoke loom carrier from the yoke assembly.



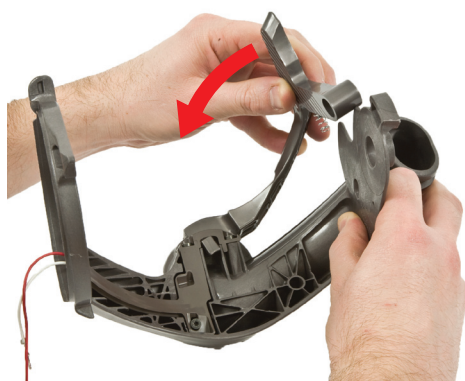
- 21** Force the yoke assembly away from the motor bucket.



- 22** If necessary the swivel arm can be replaced by removing the screw from the side of the yoke assembly.



23 Remove the swivel arm pin.



24 Firmly release the swivel arm from the side of the yoke and twist away from the centre.
Fit in reverse ensuring the spring is located correctly.



25 If the yoke loom assembly needs replacing remove the three screws.



- 26** With the screws removed release the yoke loom assembly from the yoke assembly.



- 27** If fitting a new yoke loom assembly ensure the wires are neatly dressed within the channels.



- 28** To fit the new one locate the wires through the side of the yoke assembly.



- 29** Locate the yoke loom onto the centre of the yoke assembly.
Fit the three screws.



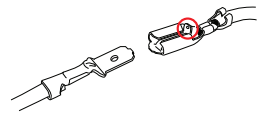
- 30** Remove the four screws in the motor bucket.



- 31** Separate the two halves of the motor bucket.



32 Remove the motor mount from the motor.



33 Detach the motor bucket wiring assembly from the motor.



34 Remove the motor bucket front and inlet bucket seal from the motor.



- 35** Remove the inlet bucket seal from the motor bucket front. Detach the motor bucket wiring assembly.



- 36** Remove the motor bucket duct seal from the motor bucket front.

Motor and yoke assembly replacement - fitting



- 37** Locate the motor bucket wiring assembly into the motor bucket front. Dress the wires within the channels.



- 38** Fit the motor mount.



- 39** Fit the inlet bucket seal ensuring the arrow lines up with the arrow on the motor mount.



- 40** Turn the motor over and ensure the inlet bucket seal is seated correctly on the motor.

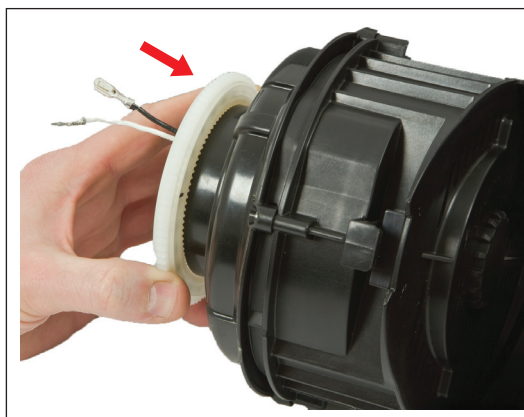


- 41** Feed the wires through the inlet bucket seal.



- 42** Ensure the inlet bucket seal is seated correctly around the motor bucket front.





46 Fit the large bearing on the end of the motor bucket (teeth to the inside).



47 Fit the small bearing (teeth to the inside).



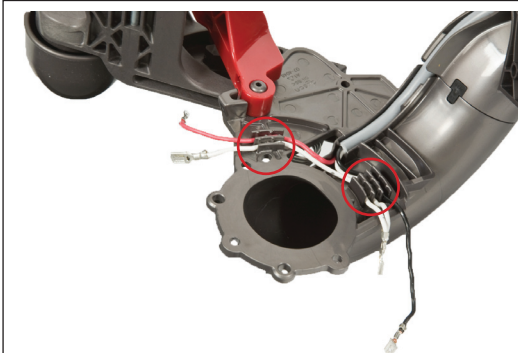
48 Locate the small bearing into the hole in the yoke assembly.



- 49** Ease the other end of the yoke assembly onto the motor bucket ensuring the motor wires are pulled through first.



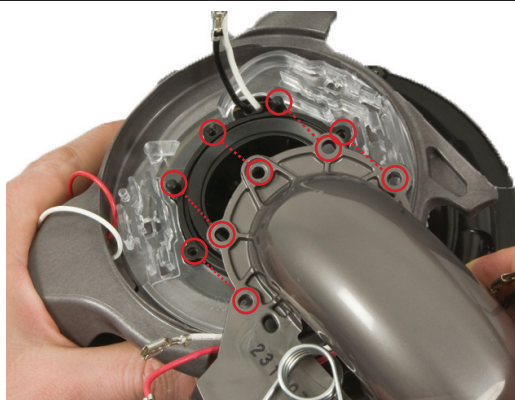
- 50** Fit the yoke loom carrier.



- 51** Before fitting the yoke assembly and motor bucket onto the duct ensure the internal cable wires are located into the channels on the duct.



52 Locate the motor bucket and yoke into the hole on the side of the duct assembly.



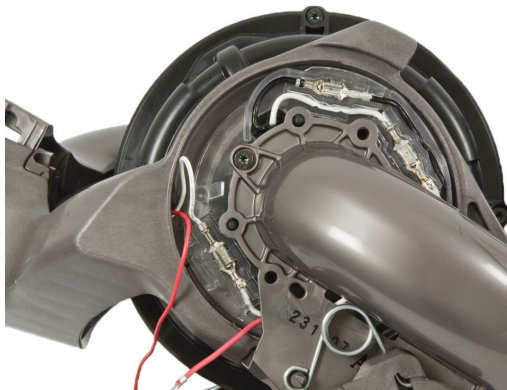
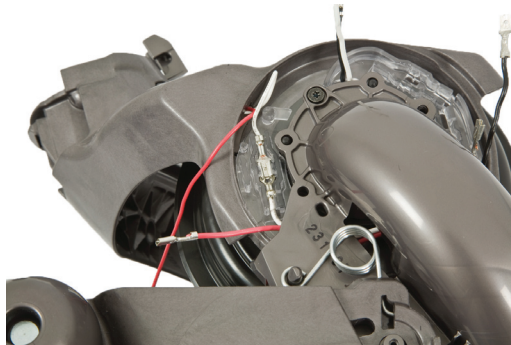
53 Carefully slide the other side onto the duct ensuring all screw bosses and retainers align.
Fit the central screw.



54 Turn the machine over and fit the yoke spigot and screw.



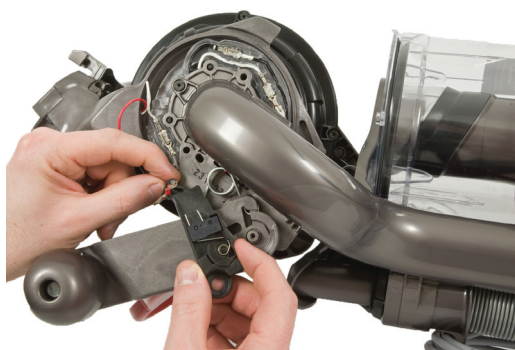
- 55** Fit the lower duct hose onto the side of the product ensuring the ends are seated correctly.



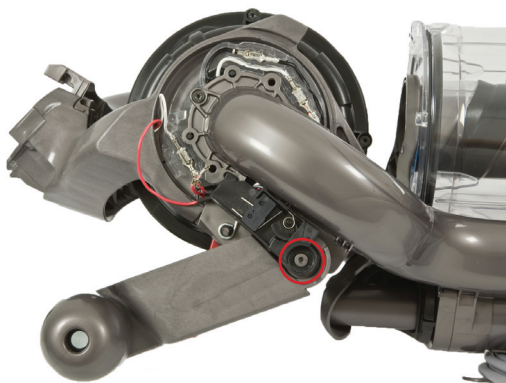
- 56** Connect all wires together. Dress all connections neatly within the retainers.



57 If any parts within the upright switch housing were previously removed ensure they are fitted as shown.



58 Feed the upright switch wires through the hole in the upright switch housing.



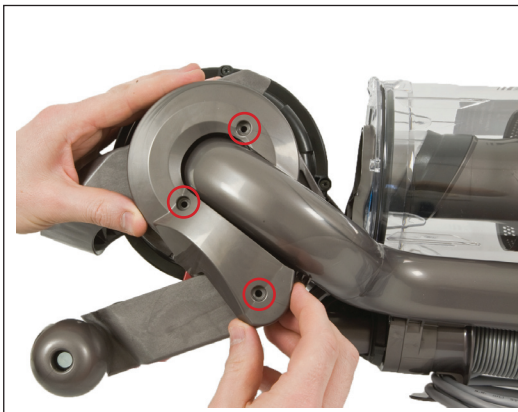
59 Fit the upright switch housing onto the side of the duct.



- 60** Connect the wires to the upright switch.



- 61** Loop the wires from the yoke assembly under the retaining tab on the yoke loom carrier.



- 62** Fit the upright switch cover and three screws.



63 Fit the post filter assembly.



64 Fit the two halves of the ball assembly.

Important: the wall of the bearing must fit to the outside of the ball.

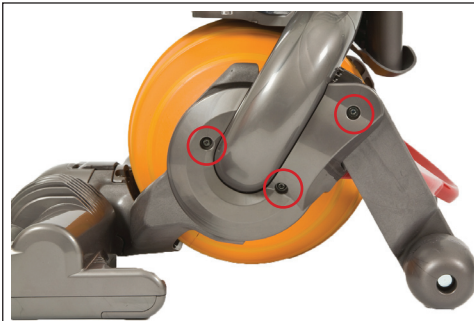


65 Fit the cleaner head.

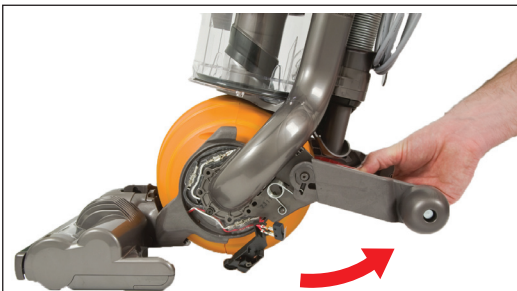
Stabiliser and pedal replacement - removal



- 66** Remove the screw and plastic washer from the side of the pedal.



- 67** Remove the three screws in the upright switch cover. Remove the upright switch cover from the product.



- 68** Position the stabiliser into the vacuum mode.



69 Pull the pedal and spring out from the stabiliser.



70 Undo the screw and plastic washer from the side of the stabiliser.

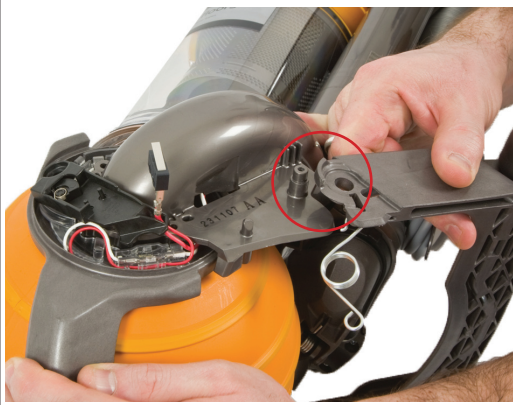


71 Remove the stabiliser assembly from the product.

Stabiliser and pedal replacement-fitting



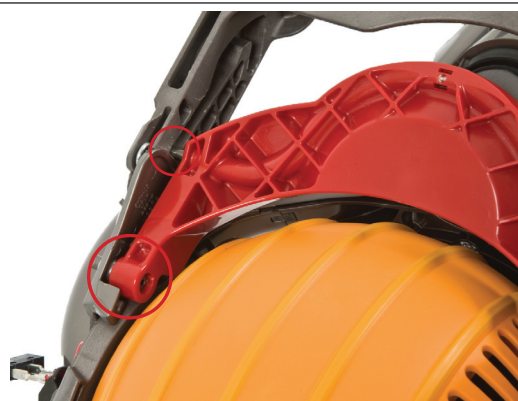
- 72** Locate the screw boss on the stabiliser assembly into the upper hole on the duct.
Fit the screw and plastic washer.



- 73** Locate the other side of the stabiliser onto the screw boss on the side of the duct.



- 74** Locate the spring onto the pip detail.



- 75** Locate the pedal onto the pip detail ensuring that the pedal axle is located within the channel on the stabiliser assembly.



- 76** Locate the axle on the other side of the pedal into the channel on the other side of the stabiliser assembly.



- 77** Locate the spring into the detail on the side of the pedal.



- 78** Locate the pedal into the hole on the side of the duct. Ensure the leg of the spring locates into the triangular detail in front of the hole.

Fit a screw and plastic washer.



- 79** Ensure the upright switch housing, the parts housed within it and all wires are fitted correctly.



- 80** Fit the upright switch cover and the three screws.

Valve wheel replacement



81 Remove the cyclone and bin assemblies from the product.



82 Remove the screw and wheel pin.



83 Slide the centre of the valve wheel onto the lug on the end of the valve hatch and remove. Fit in reverse.

Valve hose replacement-removal

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

Valve wheel (Page 33)



- 84** Release the top of the valve hose assembly from the side of the duct assembly.



- 85** Remove the rear retaining lug from the valve.



- 86** Remove the second retaining lug. Twist the hose and remove.



87 Remove the seal from the shuttle.



88 Remove the hose from the shuttle.

Valve hose replacement-fitting



- 89** Fit the hose and seal onto the shuttle. Locate the pin on the shuttle into the slot in the valve.



- 90** Locate the retaining lugs on either side of the shuttle into the valve.



- 91** Push the hose onto the duct ensuring it is adequately seated.

After fitting the previous parts the following parts should be fitted as previously shown:

Valve wheel (Page 33)

Valve hatch replacement-removal

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

Valve wheel (Page 33)



92 Remove the ball assembly from the product.



93 Remove the screw and plastic washer from the hatch.



94 Carefully push the axle out of the valve hatch.



- 95** Carefully prise the valve hatch off the lugs on the valve/upright lock assembly.



- 96** The valve seal can be removed if necessary.

Valve hatch replacement-fitting



- 97** If previously removed fit the valve hatch seal onto the valve ensuring it is adequately seated. Fit the valve hatch over the lugs on the valve.



- 98** Locate the legs of the spring into the channels on the hatch and valve. Using a screwdriver hold the spring under tension whilst sliding the axle into position.



- 99** Hold the axle in place to stop it from turning whilst fitting the screw and plastic washer.
Fit the two halves of the ball assembly and four screws.

After fitting the previous parts the following parts should be fitted as previously shown:

Valve wheel (Page 33)

Switch and powercord - removal



100 Remove the wand assembly from the product.



101 Undo the three screws in the rear of the duct assembly.



102 Using a screwdriver release the catches on the back of the switch cover.



103 Insert a screwdriver into the base of the switch cover to the side of the cyclone release catch. Prise the cover away from the duct. Repeat on the other side.

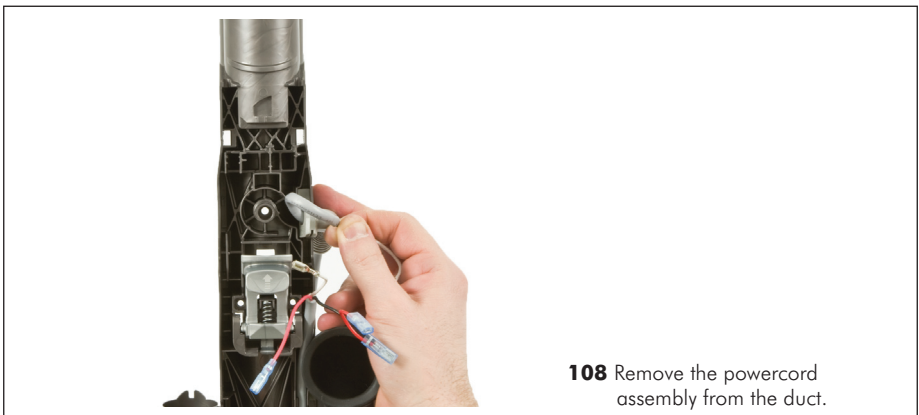


104 Remove the switch cover from the front of the duct assembly.



105 Remove the switch buttons from the switch cover.*

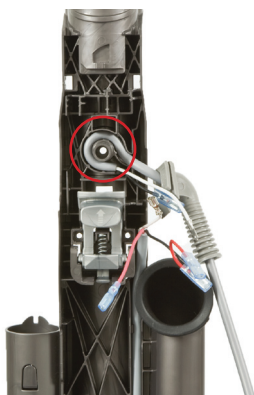
* only necessary if replacing.



Switch and powercord - fitting



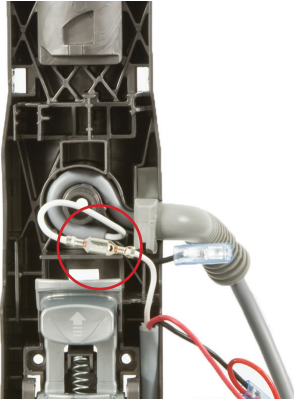
109 Feed the powercord assembly through the cable protector.



110 Locate the end of the outer insulation into the channel as shown.



111 Locate the cable protector into the side of the duct assembly.



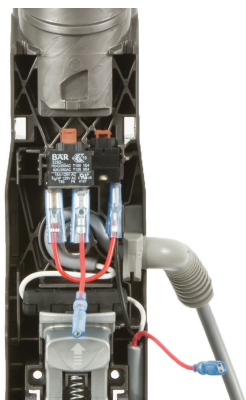
112 Attach the neutral wires together.



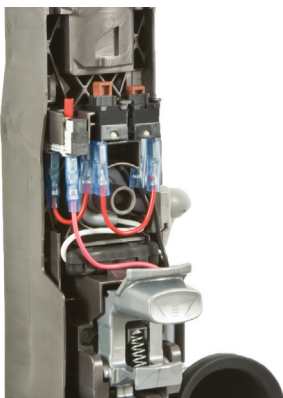
113 Locate the connection insulator over the neutral wires. Locate the connection insulator into the duct assembly.



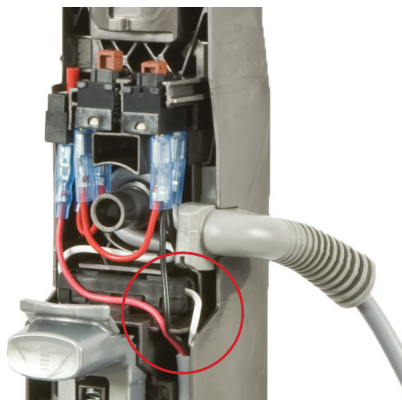
114 Attach a switch to the live wires from the powercord and internal cable.



- 115** Locate the switch into the housing. Attach the linked wire from the internal cable and the switch/TCB cable to the second switch.



- 116** Locate the second switch into the housing. Attach the switch wire from the internal cable and the switch/TCB cable to the reset switch. Locate the reset switch into the housing.



- 117** Ensure the wires from the internal cable are dressed neatly within the channels provided.



118 If previously dismantled ensure the brushbar reset arm and spring are assembled into the brushbar button as shown.

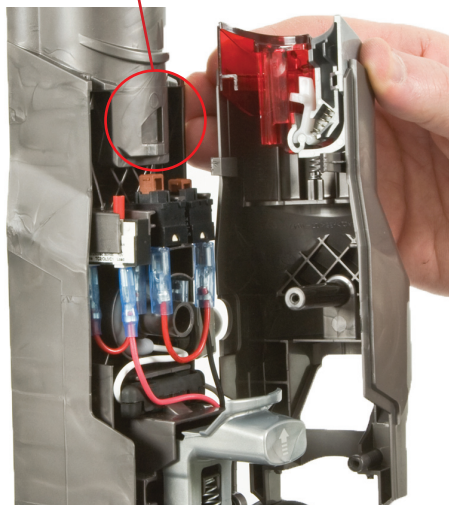


118 Fit the On/Off button spring onto the cruciform in the switch cover. Lower the brushbar button into the switch cover.

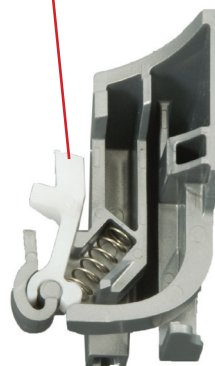


120 Lower the On/Off button into the switch cover, ensuring it locates onto the spring.

Triangular detail



Brushbar reset arm



- 121** Locate the switch cover onto the front of the duct assembly. Ensure when fitting that the brushbar reset arm locates into the triangular detail on the duct.



- 122** Hold the switch cover in place and test the buttons. The brushbar button should work independently from the On/Off button. Pressing the On/Off button when the brushbar button is off should also activate the brushbar button.
If this does not work check the position of the brushbar reset arm in the triangular detail.
When working satisfactory fit the three screws.

Duct assembly replacement - dismantle

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

Motor and yoke assembly (Pages 5 - 11)

Stabiliser and pedal assembly (Pages 28 - 29)

Valve wheel (Page 33)

Valve hose assembly (Page 34)

Valve hatch assembly (Pages 37 - 38)

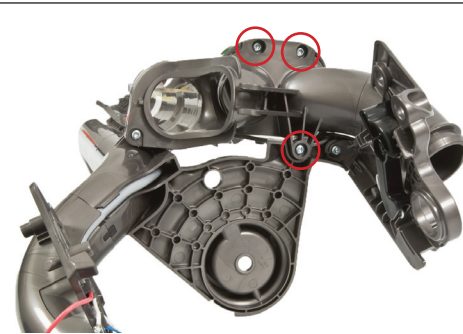
Switch and powercord assembly (Pages 40 - 42)



123 Remove the entry seal from the duct assembly.



124 Remove the exhaust seal from the duct assembly.



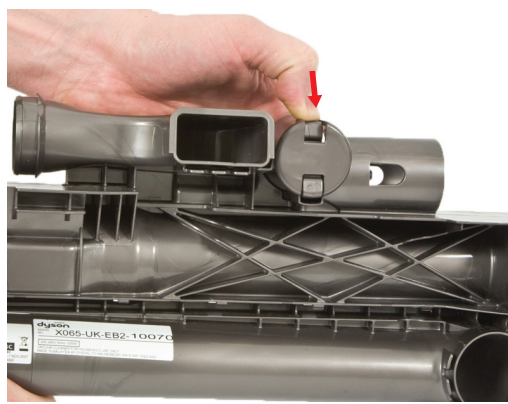
125 Undo the three screws shown on the underside of the duct.



126 With the screws removed slide the valve/upright lock assembly off the base of the duct.



127 Remove the internal cable from the duct assembly.



128 If they need replacing the tool clips can be removed from the duct assembly.



129 If the wand release catch needs replacing prise it out using a large flat bladed screwdriver.

Duct assembly replacement - fitting



- 130** Ensure the wheel spigot is located into the front of the duct assembly.



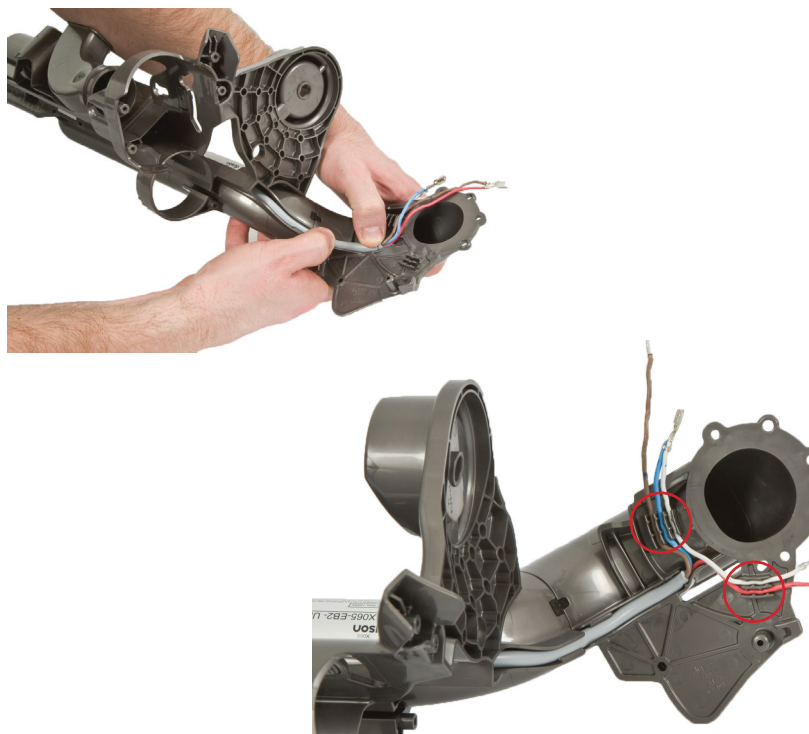
- 131** Fit the wand release catch spring onto the cruciform in the top of the duct assembly.



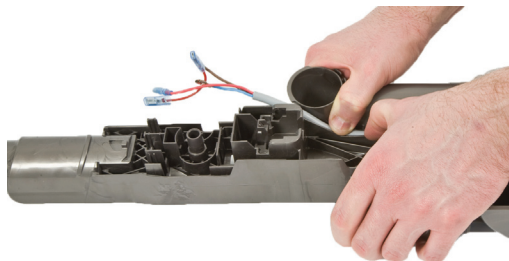
- 132** Locate the wand release catch onto the spring. Push firmly under the retainers.



133 Feed the internal cable through the opening in the bottom of the duct assembly.



134 Press the internal cable into the channel on the duct. Ensure the wires from the internal cable are dressed neatly within the channels provided.



135 Ensure the internal cable is located within the channel along the length of the duct assembly.

After fitting, the following parts should be fitted as previously shown:

Valve hatch assembly (Page 39)

Valve hose assembly (Page 36)

Valve wheel (Page 33)

Stabiliser and pedal assembly (Pages 30 - 32)

Motor and yoke assembly (Pages 22 - 27)

Switch and powercord assembly (Pages 43 - 47)

Sub assemblies - hose and wand assemblies



- 136** Should it need replacing the wand cap can be prised off the top of the wand assembly. Fit a new one in reverse.



- 137** If the hose or wand swivel catch need replacing prise off using a small screwdriver.



- 138** To fit locate the spring onto the cruciform. Lower the catch onto the spring and press firmly into the retainers.

Sub assemblies - cyclone assembly



- 139** The cyclone cap assembly can be replaced by prising it off the cyclone assembly.
A new one can be fitted by firmly clipping over the hinge points.



- 140** Should any of the parts that make up the bleed valve need replacing remove the two screws on the underside of the cyclone cap.



- 141** When fitting ensure all parts are fitted in the correct order.



- 142** The bin seal can be replaced.
When fitting a new one ensure
the detail on the seal aligns with
the notch on the cyclone
assembly.



- 143** If the FDC seal needs replacing
ensure the new one covers all the
ribs on the dust collector.

Sub assemblies - bin assembly



144 The bin catch can be replaced by prising off from the lugs on the bin.



145 To fit, press firmly onto the lugs ensuring the spring locates onto the retainers.



146 The bin base assembly can be firmly prised off the base of the bin.

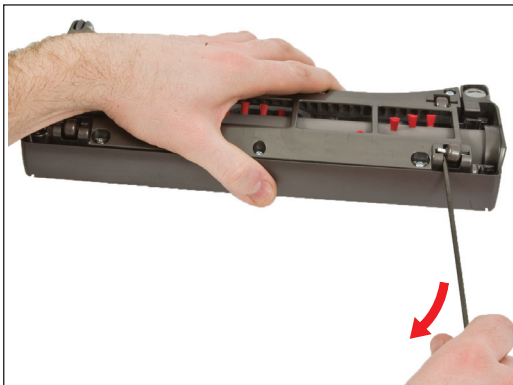


- 147** If replacing the bin base seal ensure the new one is fitted adequately around all edges of the bin base.



- 148** To fit the bin base assembly firmly press onto the lugs on the bin.

Sub assemblies - cleaner head assembly



- 149** The soleplate wheels or axles can be removed by prising out of the soleplate.
To fit firmly push into place.



- 150** If the bumper needs replacing remove the four screws on the front of the soleplate.



- 151** With the screws removed firmly push the bumper off the front of the cleaner head.
Fit in reverse.





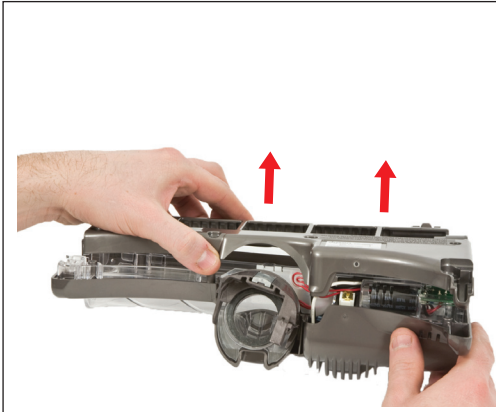
155 If the drive belt need replacing remove all screws from the soleplate, the endcap and brushbar assembly.



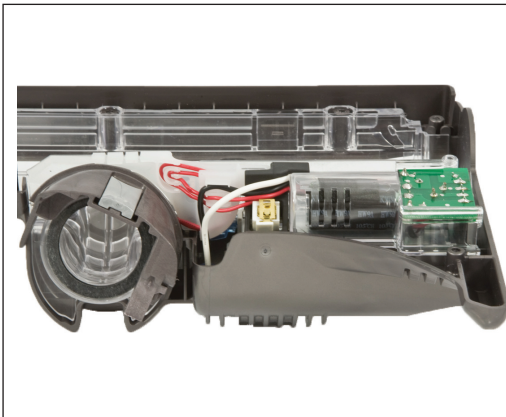
156 With the screws and brushbar assembly removed, lift off the brushbar motor cover.



157 Release the belt from the drive wheel.



- 158** With the belt removed if it needs replacing the soleplate assembly can be lifted off the cleaner head assembly.

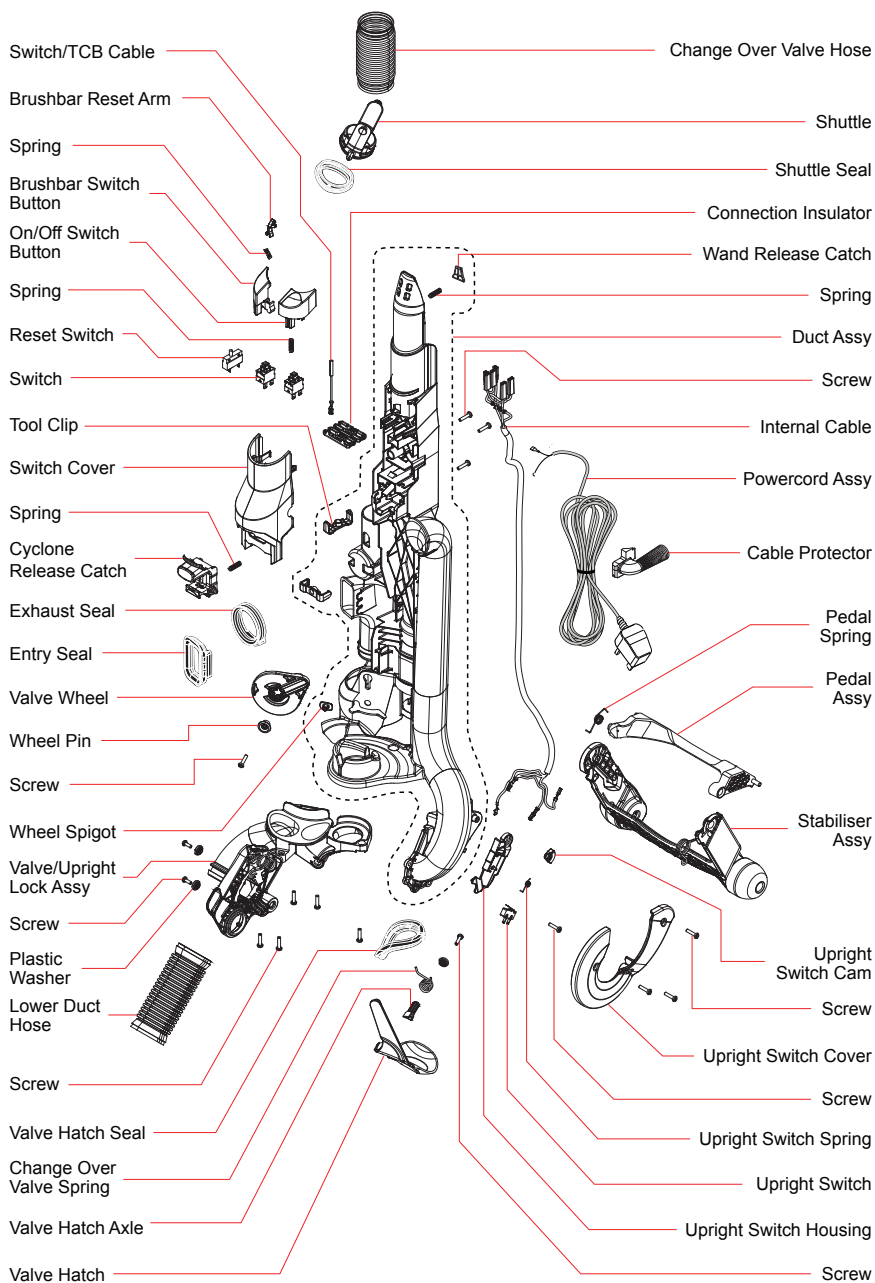


- 159** Before fitting a new soleplate ensure all wires within the cleaner head are dressed neatly within the channels provided.

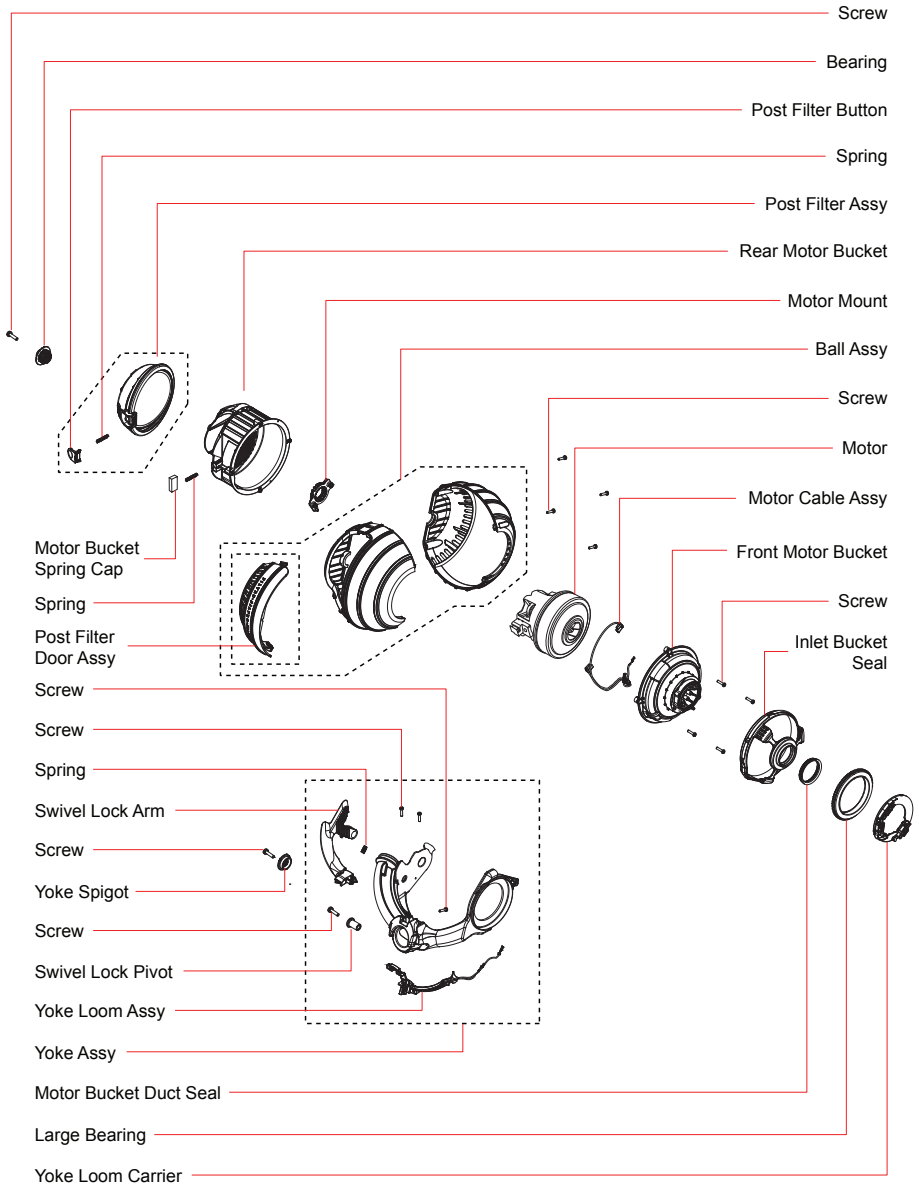


- 160** To fit the belt locate onto the motor pulley before easing onto the drive wheel. Fit the brushbar motor cover, screws, brushbar assembly and end cap.

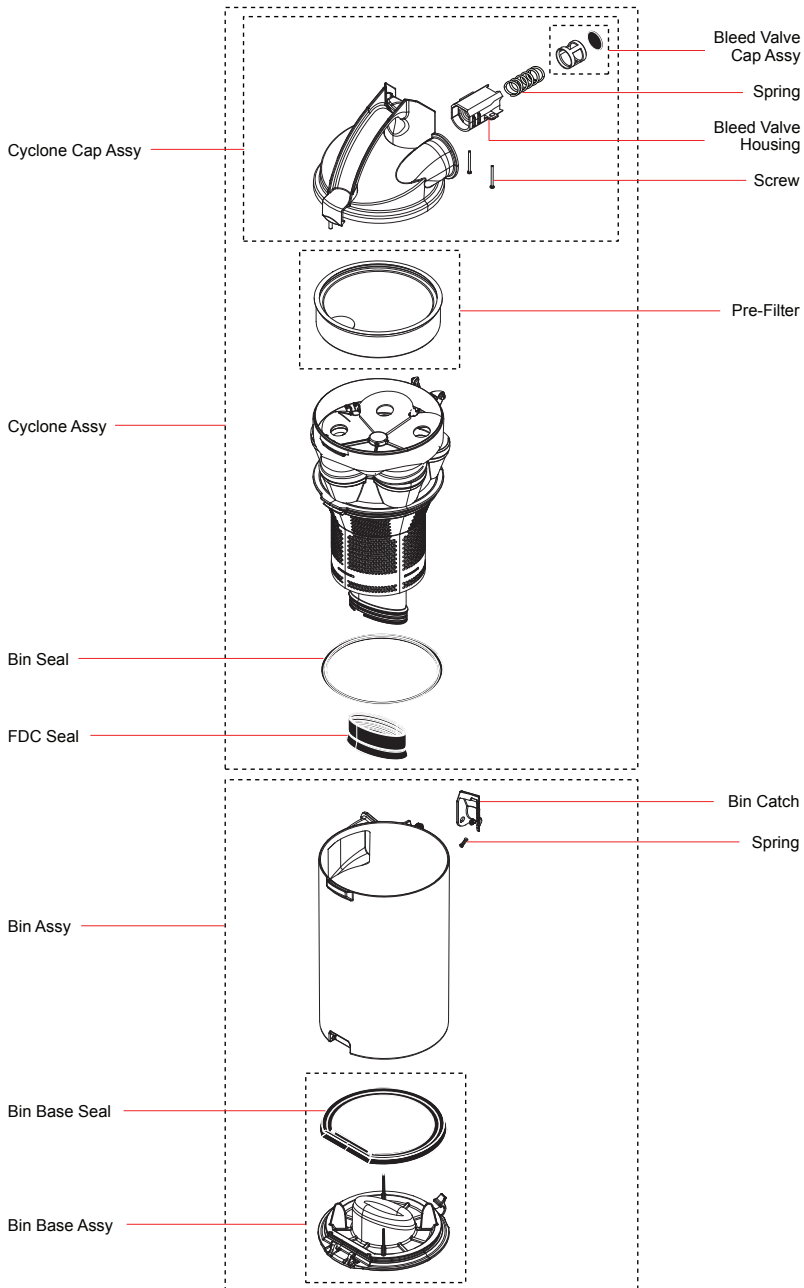
Main body



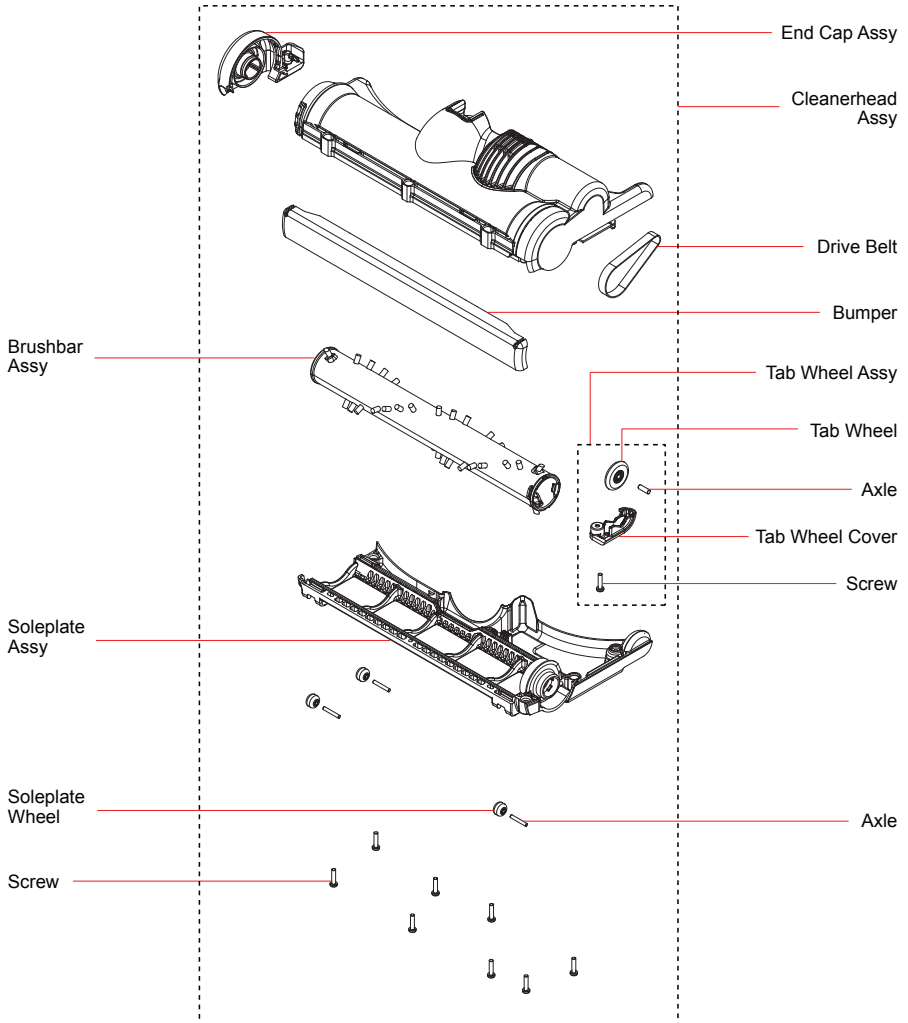
Motor assembly



Cyclone and bin assemblies



Cleaner head assembly



Wand and hose assemblies

