

DC  
18

service manual

dyson



Issued 10/06

## dyson slim

The lightweight that doesn't lose suction.

### DC18 key technology;

#### No running costs

Lifetime filters that never need replacing - just wash every three to six months.

#### Multi Cyclone technology

Advanced Dyson cyclone technology. No clogged filters, no loss of suction.

#### Cleanerhead geometry

The central pivot on the cleanerhead ensures the head maintains perfect contact with the floor even when the machine is turning.

#### Motorised brushbar

Turn brushbar off at the touch of a button to protect delicate rugs and hard floors.

#### Telescope Reach™ wand

Quick-draw wand for instant high reach cleaning.

#### Clear bin™

Tough polycarbonate - lets you see how well it's working and when to empty.



## Product overview

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## Parts

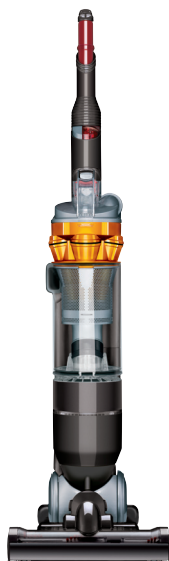
- 40 Motor, post filter and internal cable assembly
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## Introduction

This manual is written specifically for Dyson trained engineers and covers the DC18 range. The service instructions assume the engineer has the approved tools and test equipment with them.

## Variants

Product overview



**DC  
18** all floors



**DC  
18** allergy

## DC18 overview

At only 6.6kg Dyson Slim is the new lightweight that doesn't lose suction. Like DC15, conventional wheels have been replaced with a single ball. This makes the machine easy to steer to clean tight places. The central pivot on the cleaner head ensures that the head maintains perfect contact with the floor even when the machine is turning. To give great pick up, there is a separate motor in the cleaner head that powers the brushbar; this can be turned off at the touch of a button to protect delicate rugs and hard floors. All DC18 products incorporate a combination accessory tool, hygienic bin emptying and the new Advanced Telescope Reach™ wand system, which expands instantly for stair and high reach cleaning.

## Specifications

	all floors	allergy
Suction power (airwatts)	200	200
Pre-motor filter	3-6 months washable	3-6 months washable
Post-motor filter	Lifetime pad	Lifetime HEPA
Telescope reach wand	Yes	Yes
Motorised brush control	Yes	Yes
Hygienic bin emptying	Yes	Yes
Bin capacity (L)	1.7	1.7
Cable length (m)	7.5	7.5
Maximum reach (m)	11.9	11.9
Main motor (W)	1200	1200
Sound level (dBa)	83	83
Height (mm)	1110	1110
Width (mm)	300	300
Depth (mm)	415	415
Operational weight (kg)	6.6	6.6

## Electrical testing

### General safety note

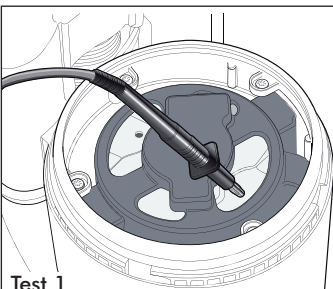
All operating instructions contained within this service manual are intended solely for the use of adequately trained personnel. The instructions assume the service engineer has the correct test equipment to complete the activity. Prior to using any consumer mains supply sockets you must ensure the socket is tested for correct polarity.

### Testing DC18 for correct insulation

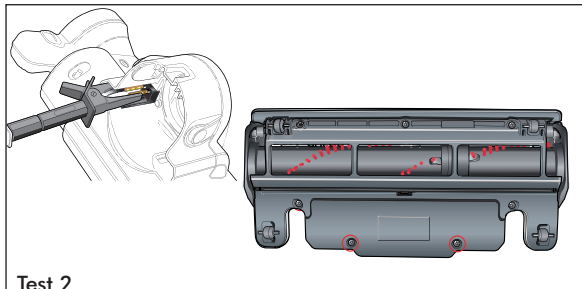
The following insulation tests MUST be carried out prior to and on completion of all services to DC18, and BEFORE any functional checks. You must ensure that a full visual inspection of the product is completed prior to any service activity.

**Ensure at all times during service and testing that consumers, pets and children are not exposed to any live electrical supply.**

### Insulation test points



Test directly onto the top of the vac motor (see pages 6-8 for access).



Bond the live and neutral pins of the cleaner head connector block using the crocodile clip. With the pins bonded test the two screws in the lower brushbar motor cover.

**Test results**

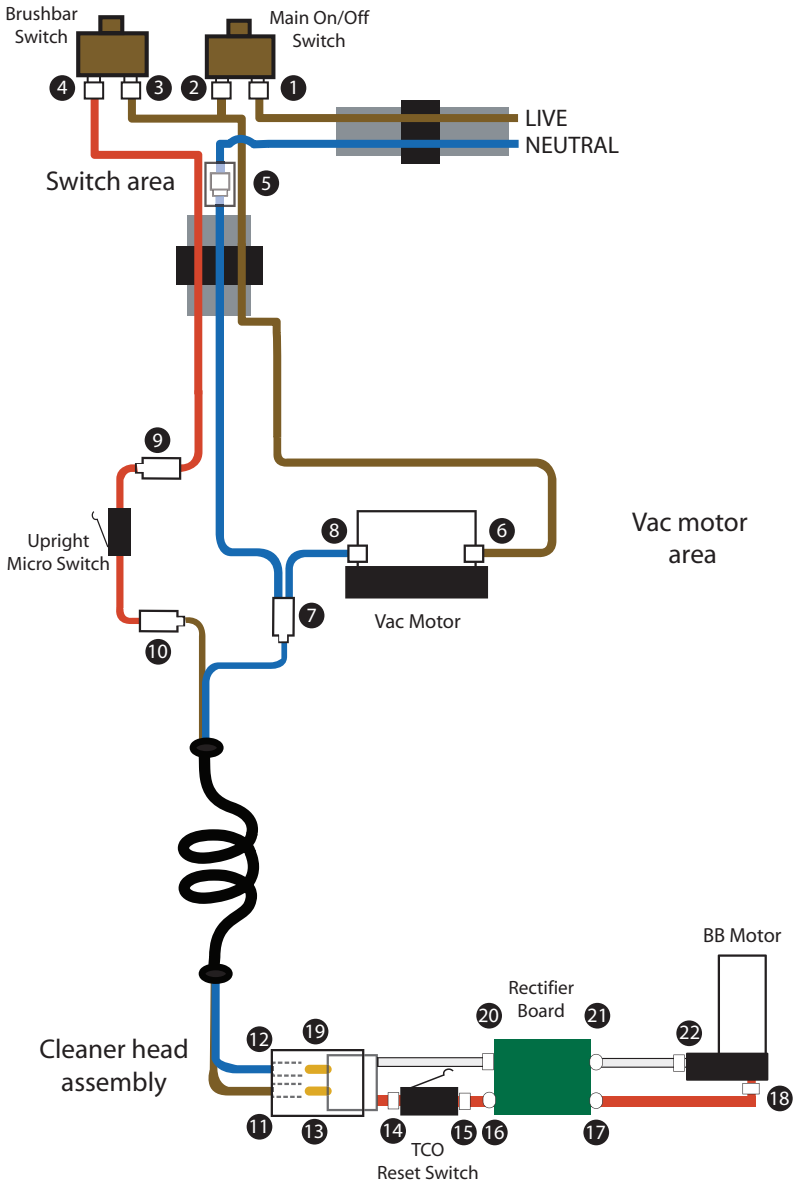
An insulation test reading of between 2 MΩ and infinity is acceptable.

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

**Electrical resistance values**

COMPONENT	TEST BETWEEN POINTS			OHMS
POWERCORD ASSY	LIVE PIN	TO	NEUTRAL PIN	APPROX 8
POWERCORD ASSY	LIVE PIN	TO	1	1 MAX
POWERCORD ASSY	NEUTRAL PIN	TO	5	1 MAX
SWITCH	1	TO	2	1 MAX
SWITCH	3	TO	4	1 MAX
INTERNAL CABLE (LIVE)	2	TO	3	1 MAX
INTERNAL CABLE (LIVE)	2	TO	6	1 MAX
INTERNAL CABLE (NEUTRAL)	5	TO	7	1 MAX
INTERNAL CABLE (NEUTRAL)	5	TO	8	1 MAX
INTERNAL CABLE (RED)	4	TO	9	1 MAX
UPRIGHT SWITCH LOOM (DEPRESSED)	9	TO	10	1 MAX
COILED CABLE LOOM	7	TO	12	1 MAX
COILED CABLE LOOM	10	TO	11	1 MAX
MOTOR	6	TO	8	APPROX 7
CLEANER HEAD	13	TO	19	APPROX 120
CLEANER HEAD	13	TO	14	1 MAX
TCO SWITCH	14	TO	15	1 MAX
TCO SWITCH	19	TO	20	1 MAX
PCB BOARD	15	TO	16	1 MAX
PCB BOARD	16	TO	17	OPEN CIRCUIT
PCB BOARD	17	TO	18	1 MAX
PCB BOARD	20	TO	21	4 MAX
PCB BOARD	21	TO	21	1 MAX
BB MOTOR	18	TO	22	APPROX 70

**Electrical circuit**



Technical info

## Electrical fault diagnostic

- 1) When DC18 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.
- 2) The vacuum motor of DC18 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.
- 3) The cleaner head 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 switch.  
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 pages 3-4.

#### No machine power (vac motor and brushbar motor off)

- 1) Check for damage/electrical failure to the plug, fuse and powercord. Check the mechanical actuation of the on/off switch.
- 2) Check for a loose connection at points **1, 2 and 5**.
- 3) Check continuity of powercord, on/off switch and internal cable (neutral wire only).

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

- 1) Check connections at points **6** and **8**.
- 2) Check continuity of the internal cable (live wire, points **2-6** and neutral wire points **7-8**).
- 3) Check the vac motor continuity and motor brushes, windings, commutator etc.

#### No power to the brushbar motor (vac motor on)

- 1) Check connections at points **3,4,9,10,11,12, 13, 14, 15, 18, 19, 20 and 22**.
- 2) Check the continuity of the brushbar switch, the internal cable (red wire only), the micro switch loom, the cleaner head coiled cable loom assembly, the cleaner head connector block assembly and the PCB assembly, points **20-21** only.
- 3) Check the brushbar motor continuity and motor brushes, windings, commutator etc.

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

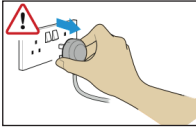
- 1) Check the actuation of the micro switch. Ensure the micro switch isn't jamming or sticking.

#### Brushbar switch does not switch brushbar motor off in tilt position

- 1) Check for correct location of the brushbar reset arm (see item 74, page 19).



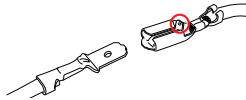
## General notes



**Before attempting any repairs it is vital to ensure that the product is totally isolated from the mains supply and that accidental reconnection cannot occur.**



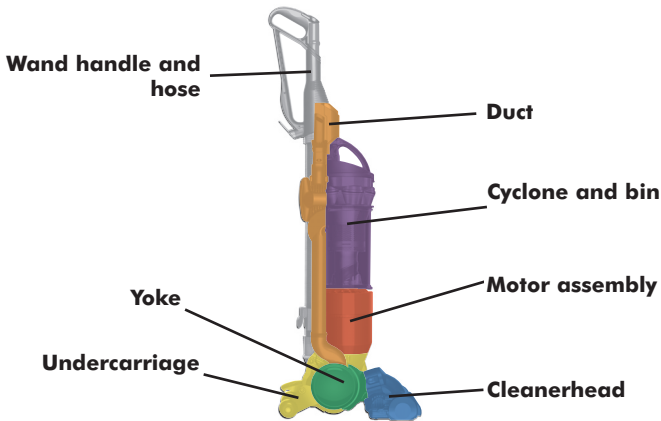
**All screws used in DC18 are M3.5 x 16 Torx T-15 unless otherwise stated.**



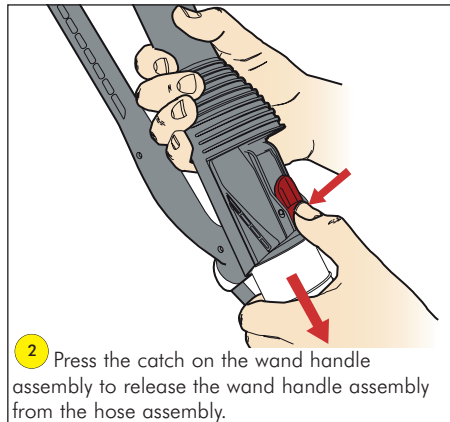
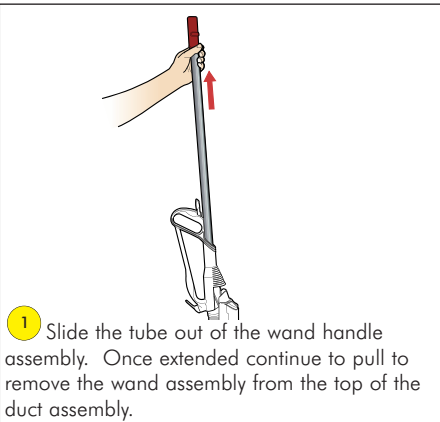
**All female terminal clips used in DC18 contain a locking mechanism. The release pip will need to be activated before separation from the male terminal can occur.**

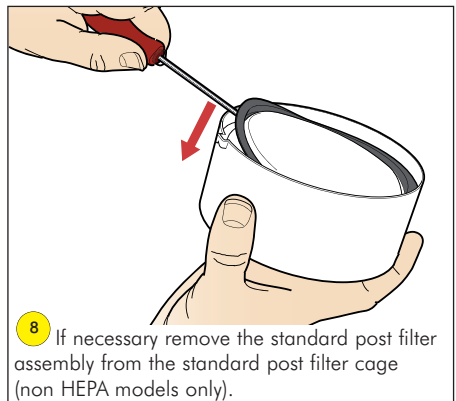
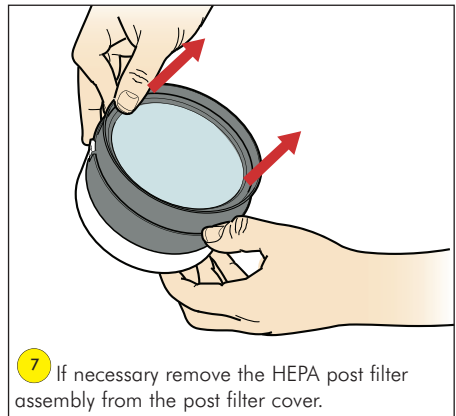
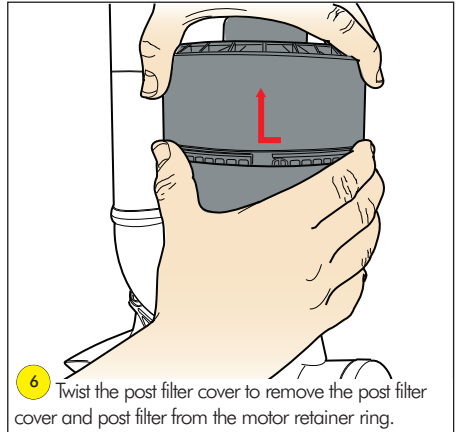
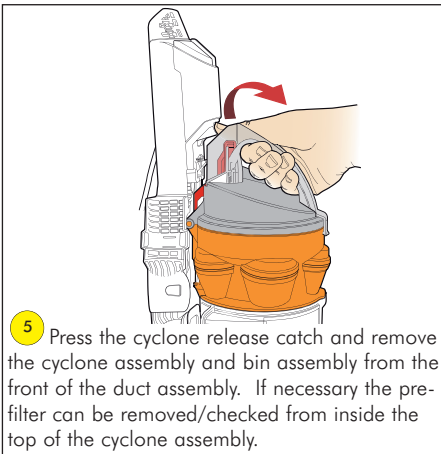
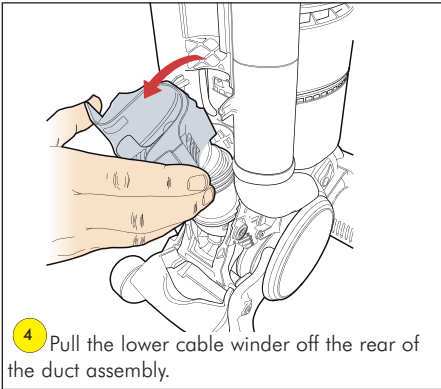
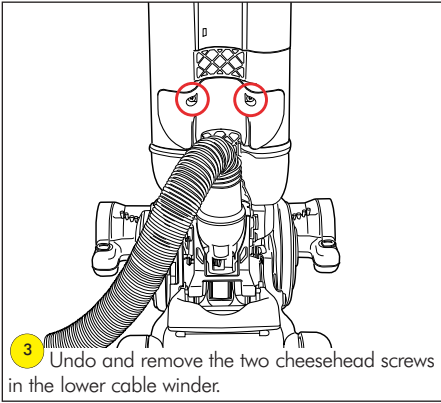
## Assembly guide

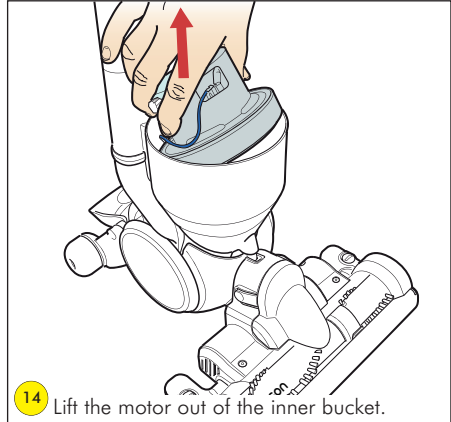
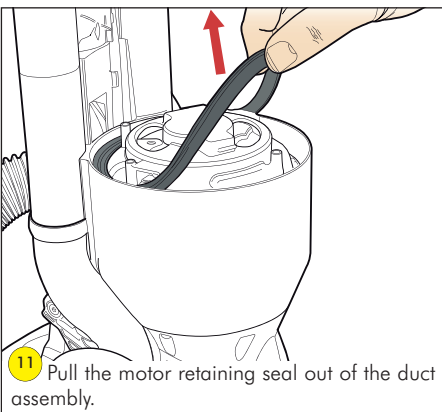
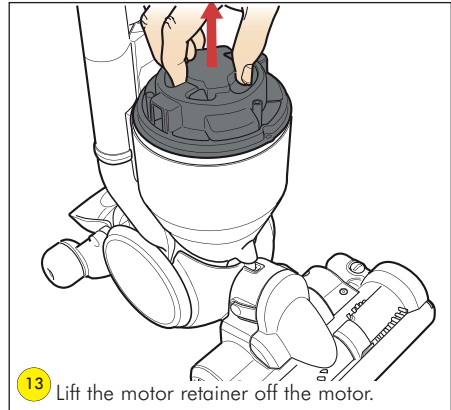
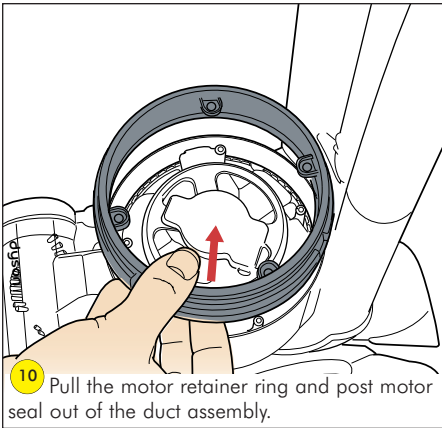
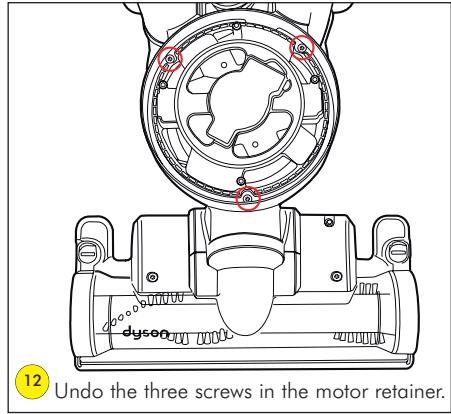
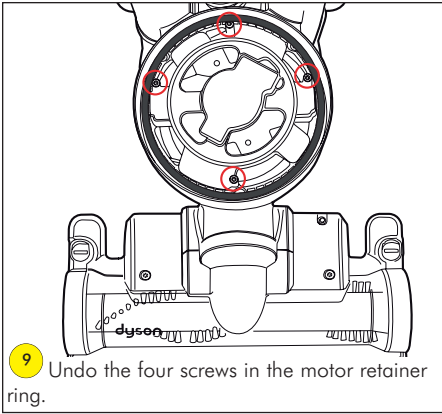
The fitting notes contained within this service manual are separated into the following assembly sections:

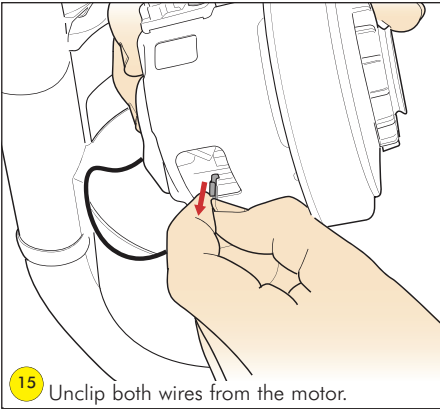


## Motor replacement - removal

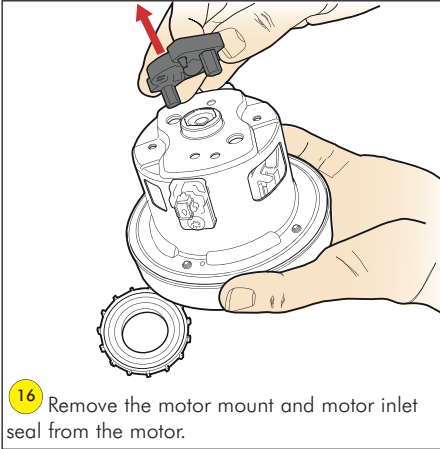






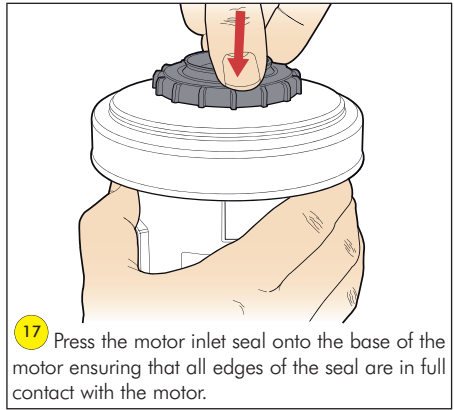


15 Unclip both wires from the motor.

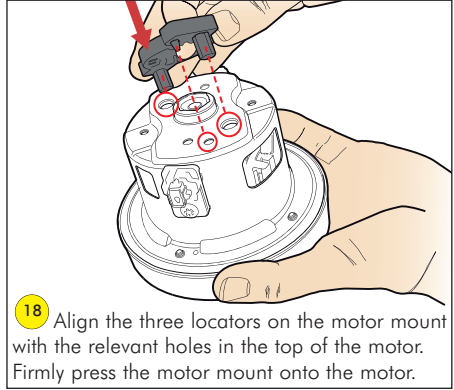


16 Remove the motor mount and motor inlet seal from the motor.

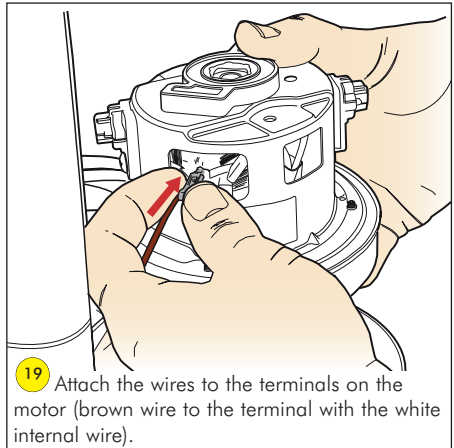
**Motor replacement - fitting**



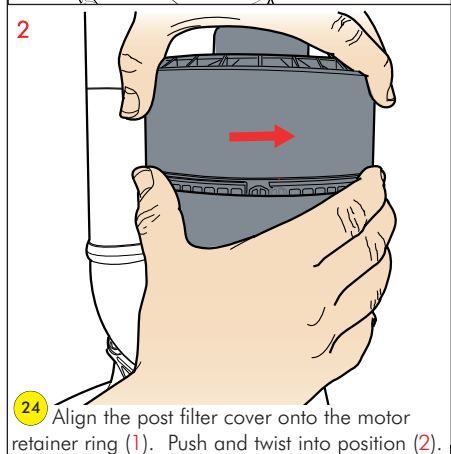
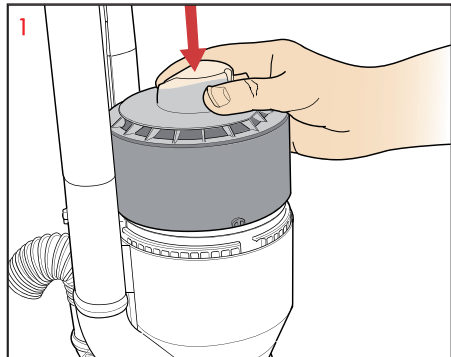
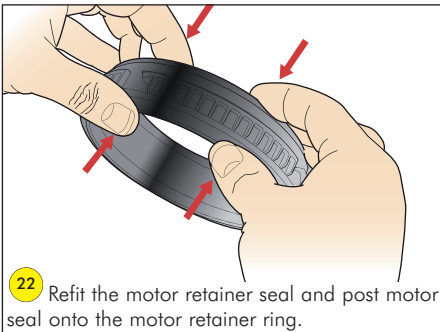
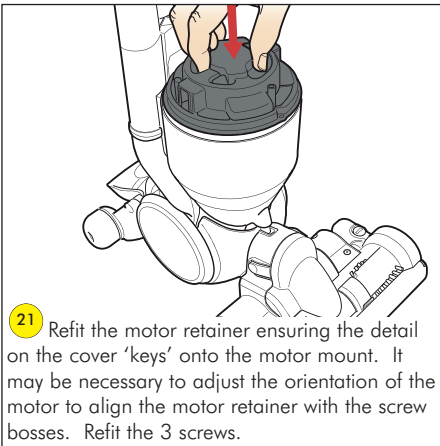
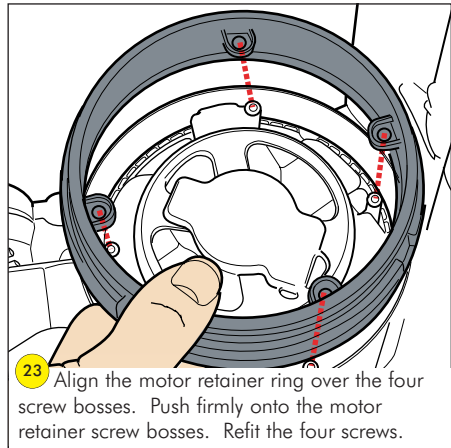
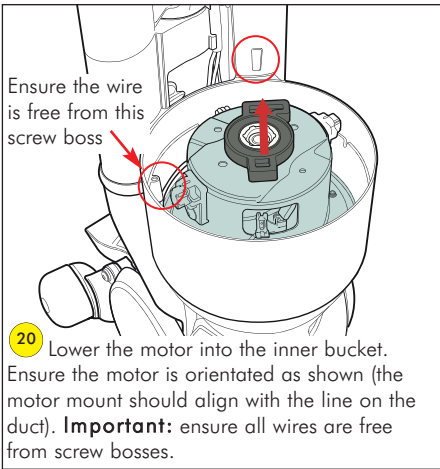
17 Press the motor inlet seal onto the base of the motor ensuring that all edges of the seal are in full contact with the motor.

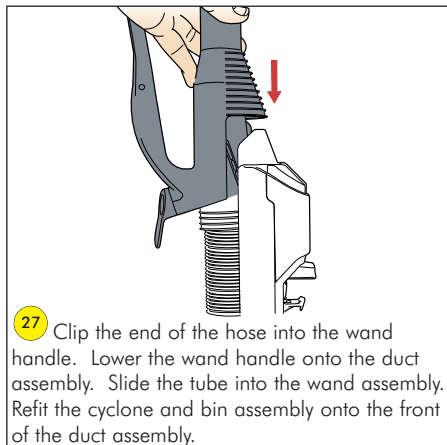
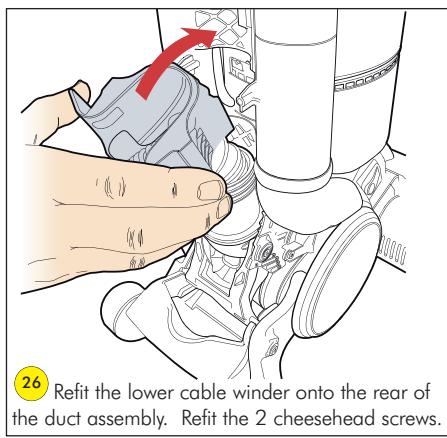
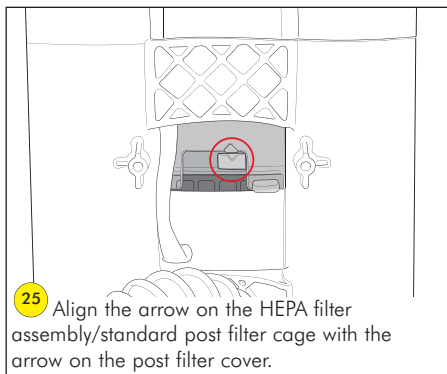


18 Align the three locators on the motor mount with the relevant holes in the top of the motor. Firmly press the motor mount onto the motor.

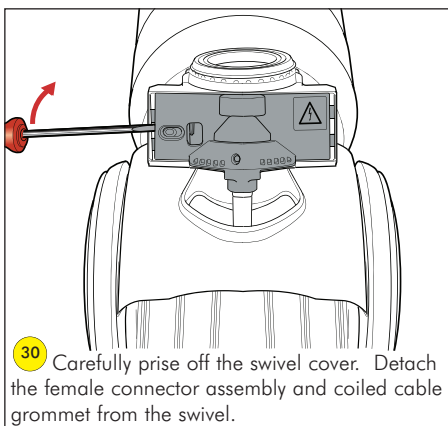
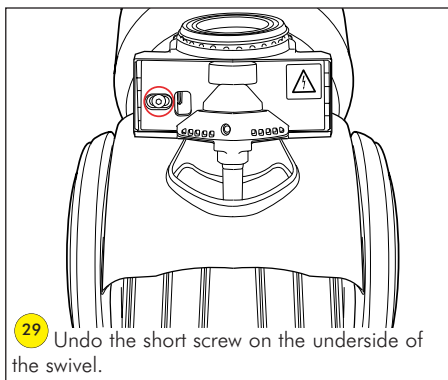
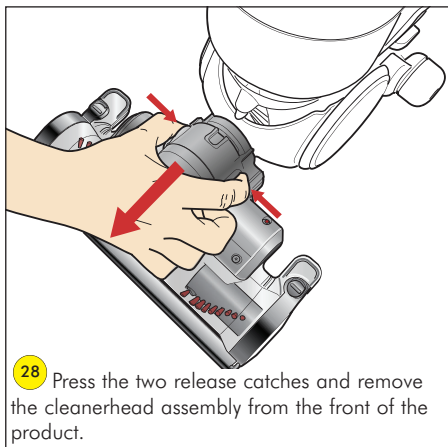


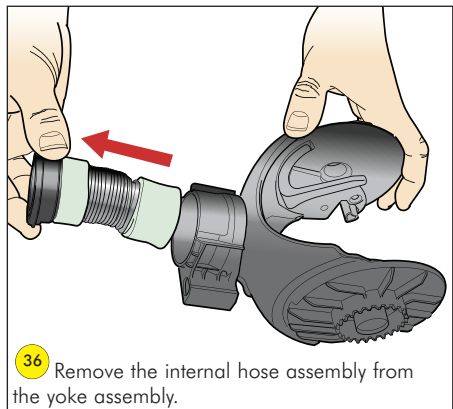
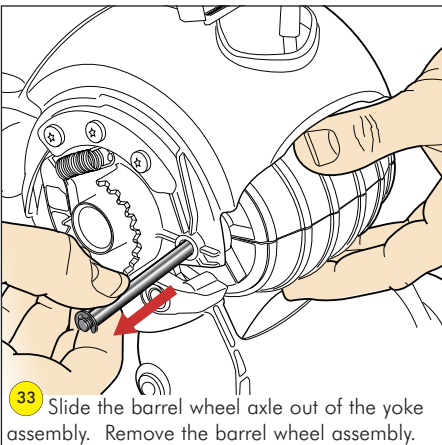
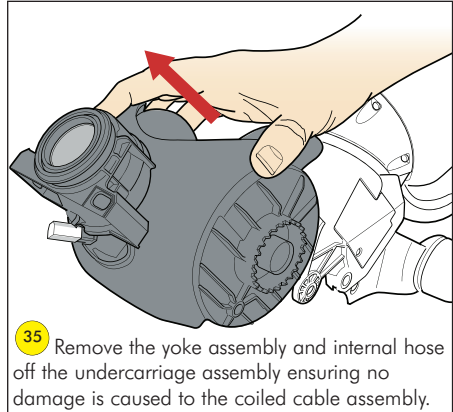
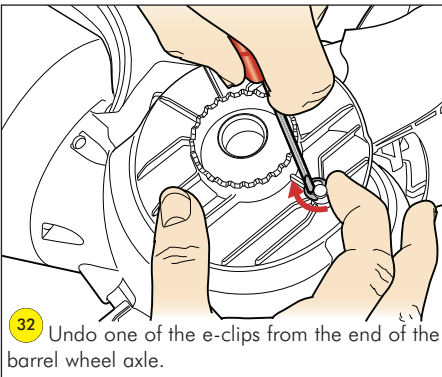
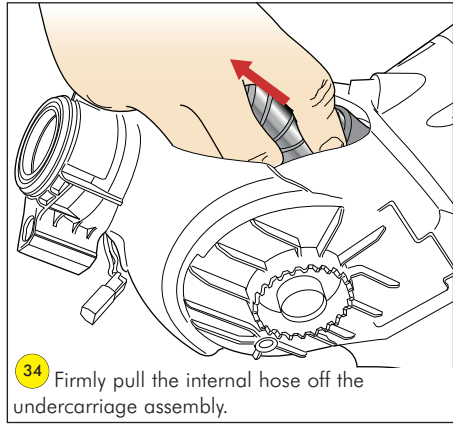
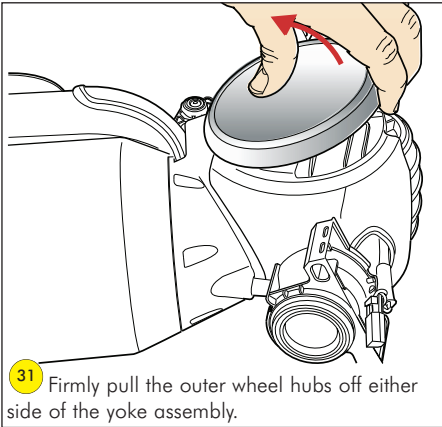
19 Attach the wires to the terminals on the motor (brown wire to the terminal with the white internal wire).





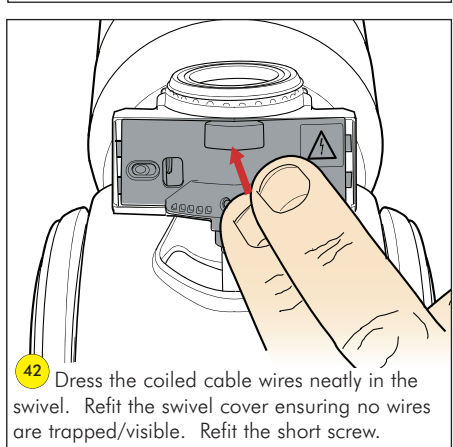
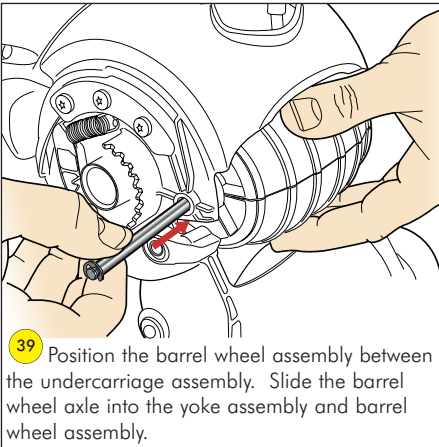
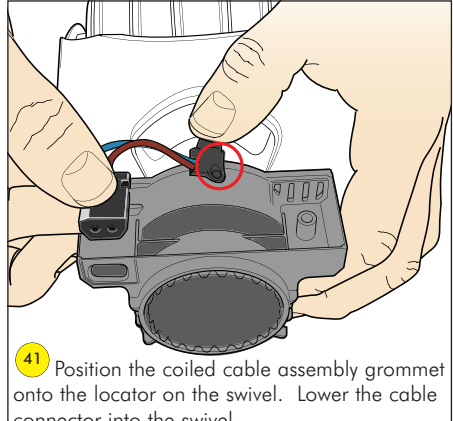
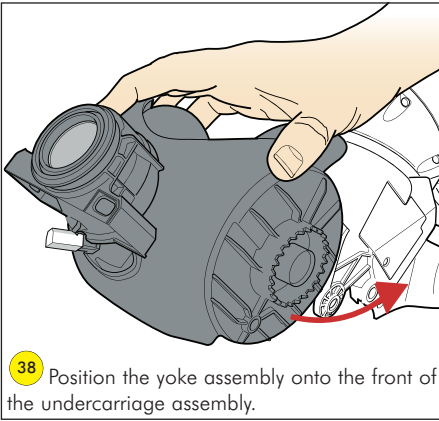
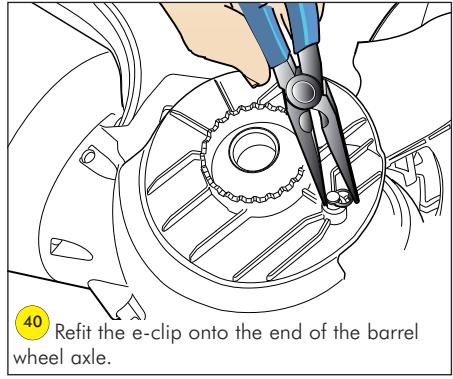
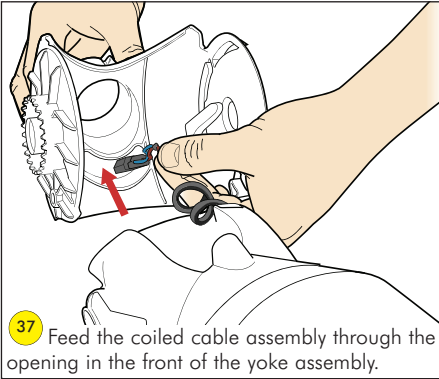
**Yoke assembly - removal**





Fitting notes

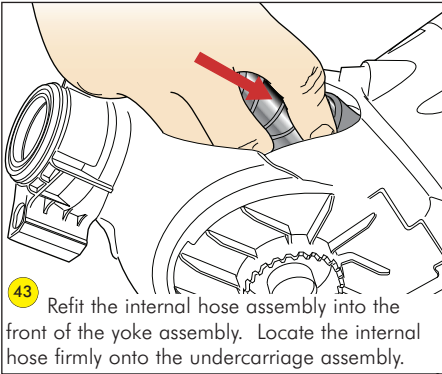
### Yoke assembly - fitting



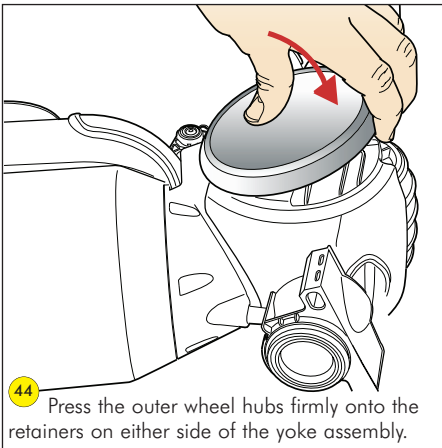


### Undercarriage assembly - removal

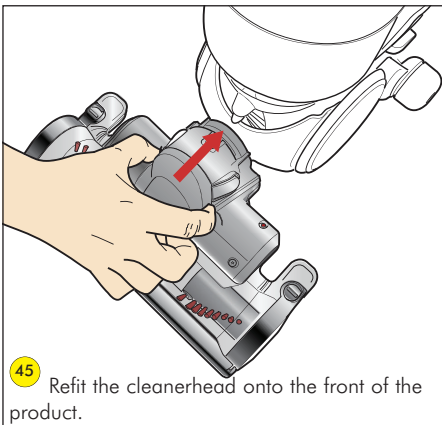
Before continuing the following parts should be removed as previously shown:  
Yoke assembly (pages 11 to 12).



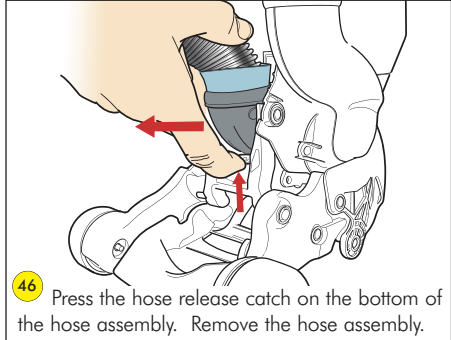
**43** Refit the internal hose assembly into the front of the yoke assembly. Locate the internal hose firmly onto the undercarriage assembly.



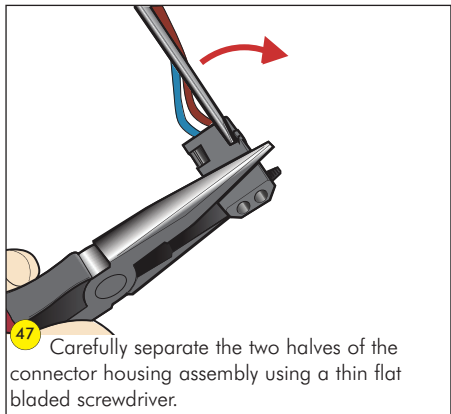
**44** Press the outer wheel hubs firmly onto the retainers on either side of the yoke assembly.



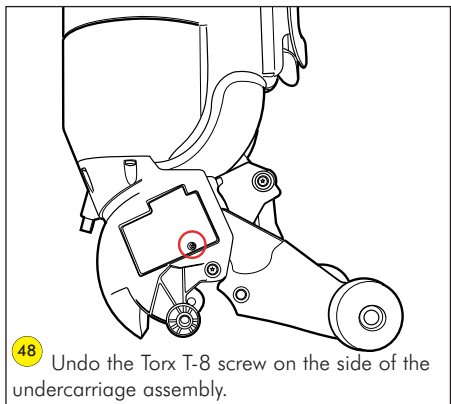
**45** Refit the cleanerhead onto the front of the product.



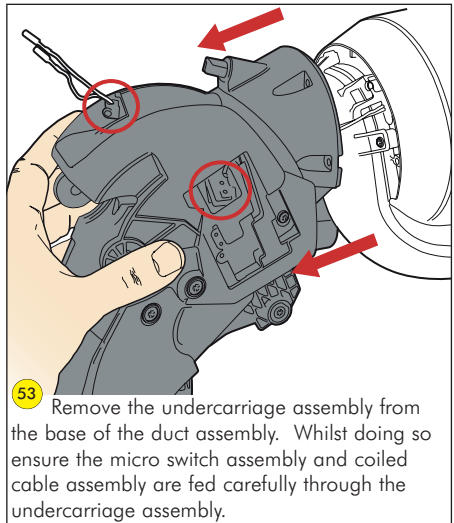
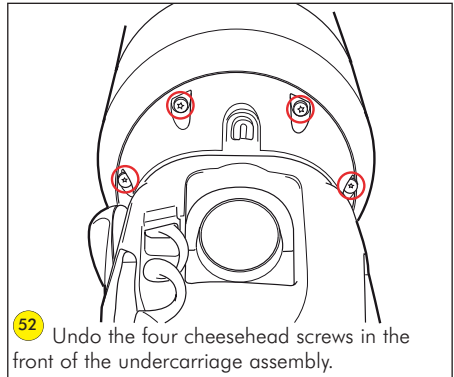
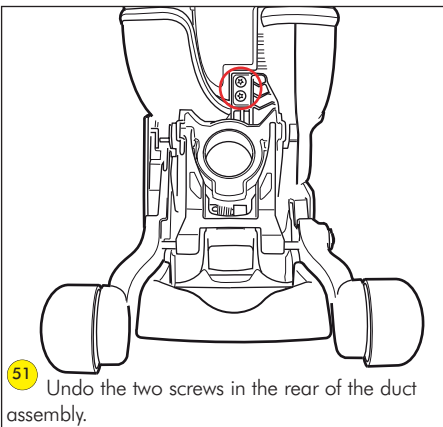
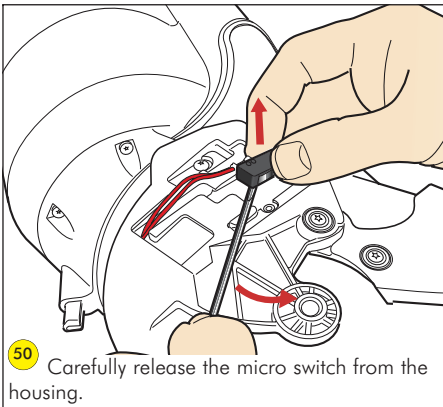
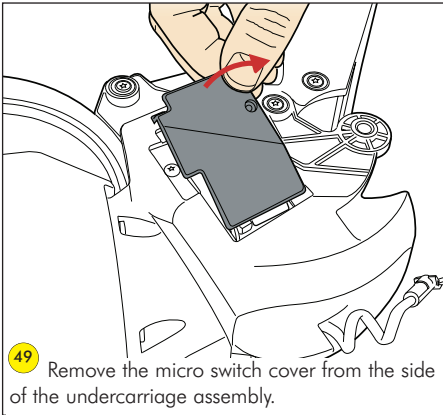
**46** Press the hose release catch on the bottom of the hose assembly. Remove the hose assembly.



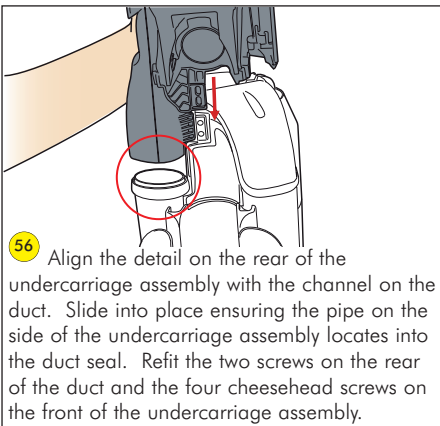
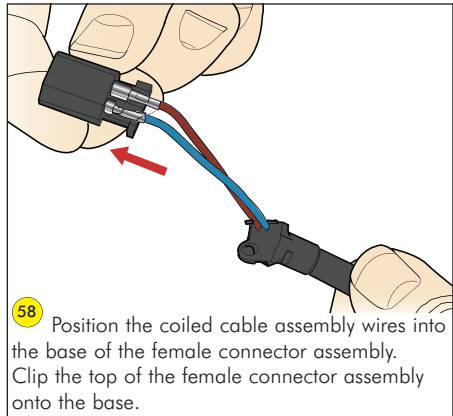
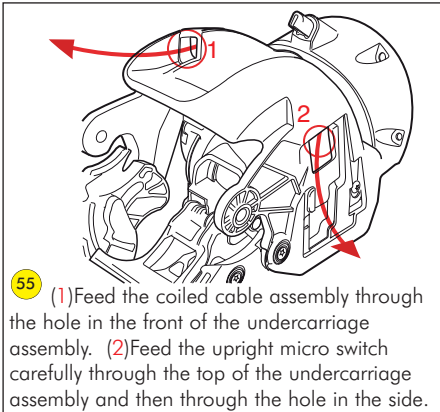
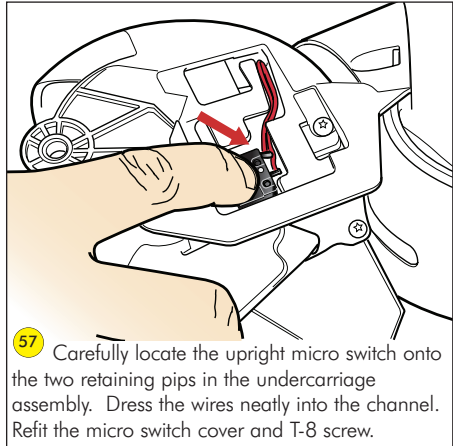
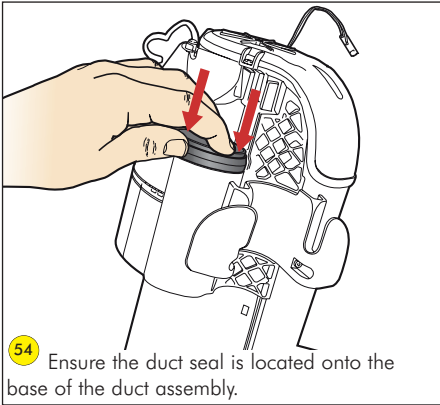
**47** Carefully separate the two halves of the connector housing assembly using a thin flat bladed screwdriver.



**48** Undo the Torx T-8 screw on the side of the undercarriage assembly.



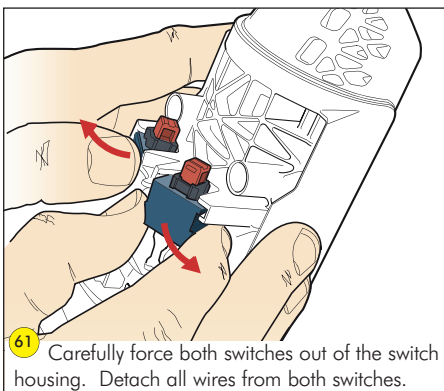
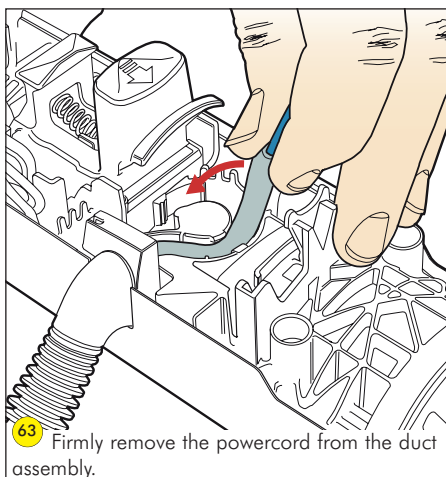
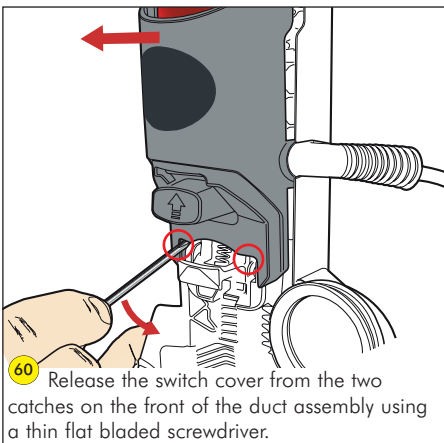
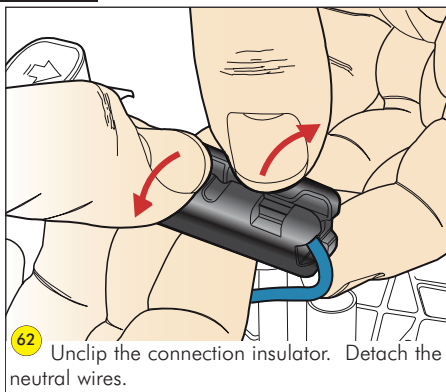
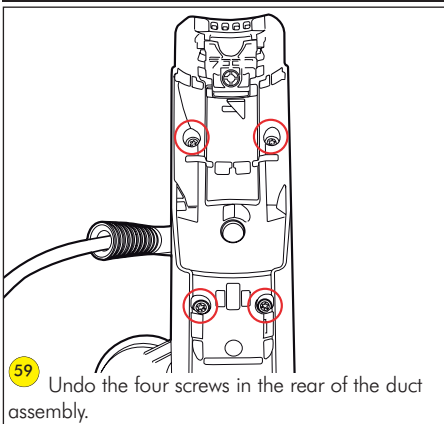
### Undercarriage assembly - fitting



**After fitting the undercarriage assembly the following parts should be fitted as previously shown:**  
Yoke assembly (pages 13 to 14).

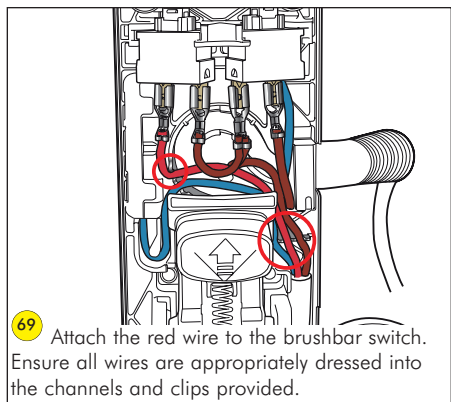
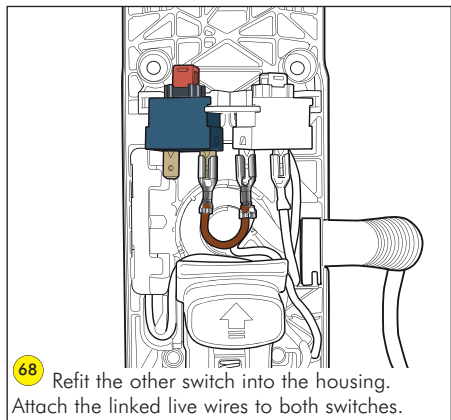
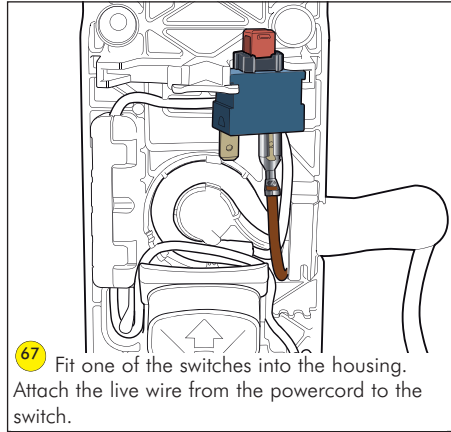
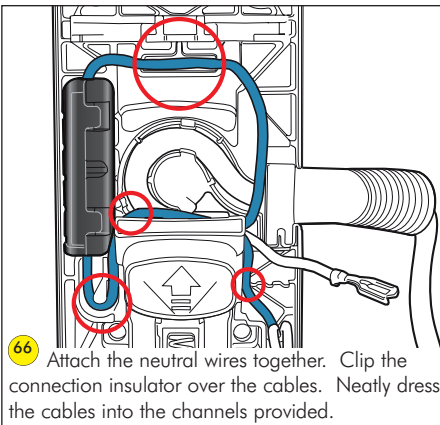
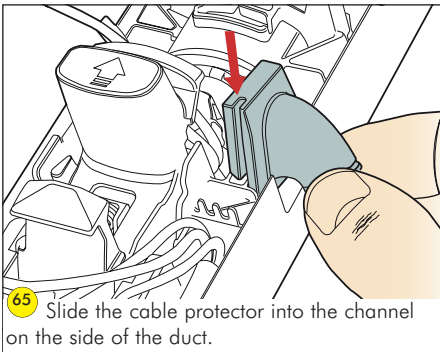
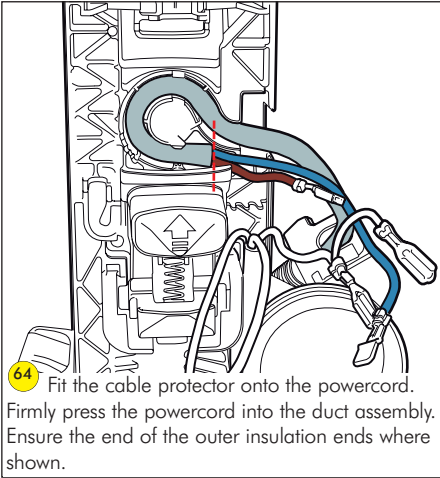
Fitting notes

### Switch cover and powercord assembly - removal

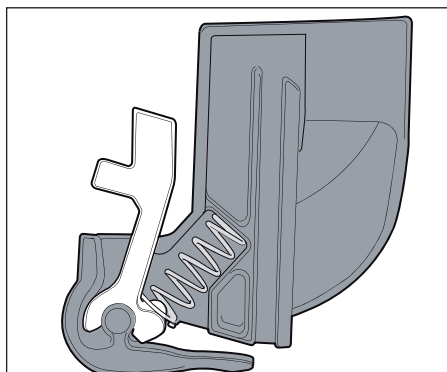


Fitting notes

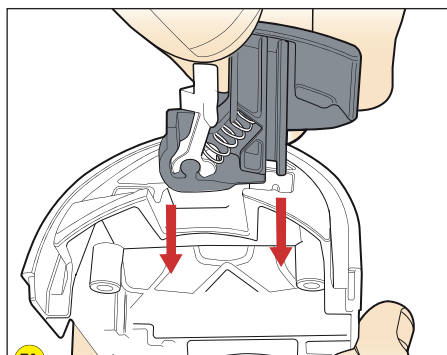
**Switch cover and powercord assembly - fitting**



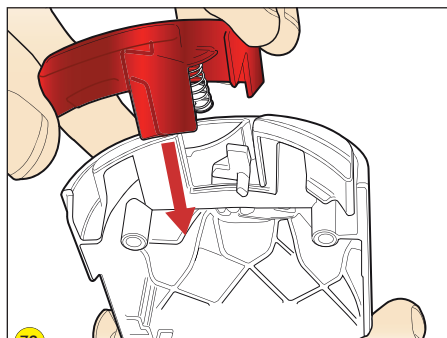
Fitting notes



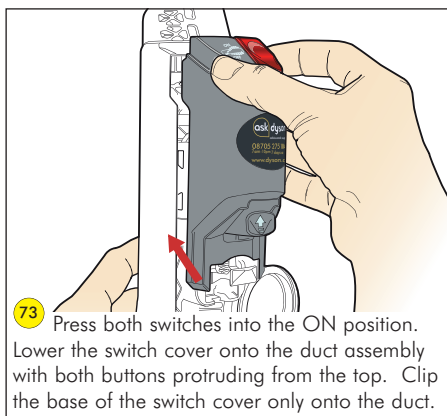
70 Assemble the brushbar reset arm and spring into the brushbar actuator as shown.



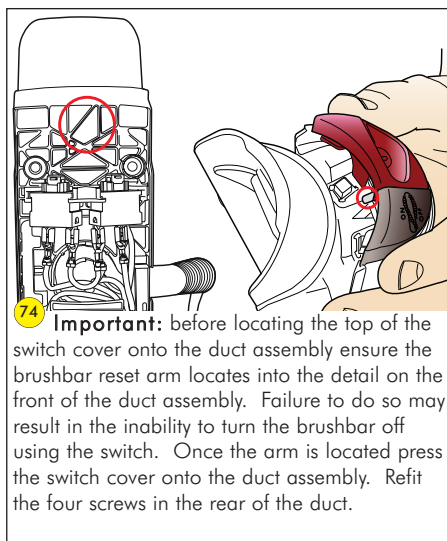
71 Lower the brushbar actuator into the switch cover.



72 Lower the ON/OFF button and spring into the switch cover.



73 Press both switches into the ON position. Lower the switch cover onto the duct assembly with both buttons protruding from the top. Clip the base of the switch cover only onto the duct.



74 **Important:** before locating the top of the switch cover onto the duct assembly ensure the brushbar reset arm locates into the detail on the front of the duct assembly. Failure to do so may result in the inability to turn the brushbar off using the switch. Once the arm is located press the switch cover onto the duct assembly. Refit the four screws in the rear of the duct.

## Duct replacement - dismantle

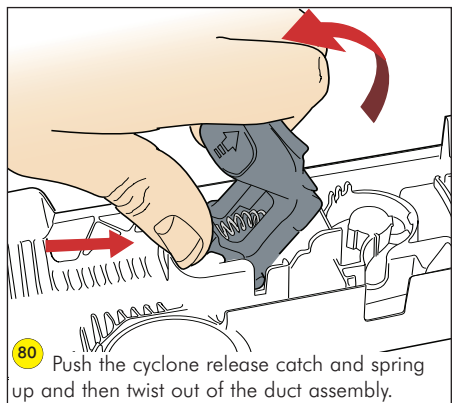
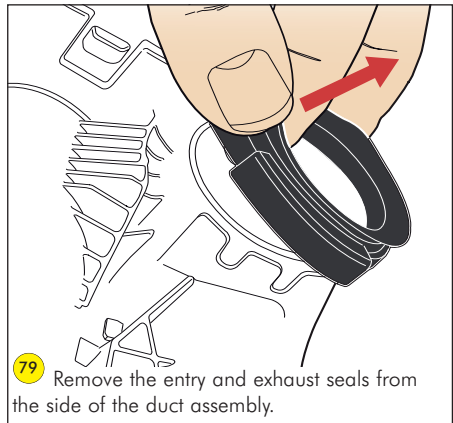
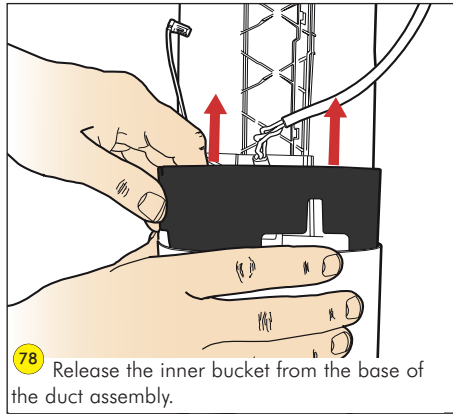
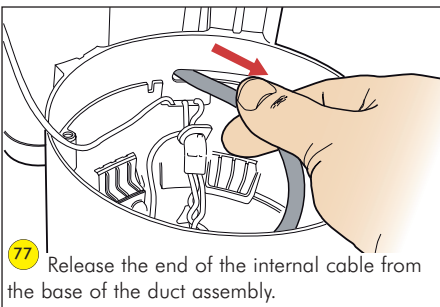
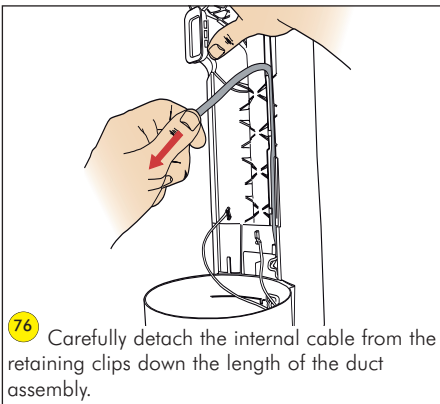
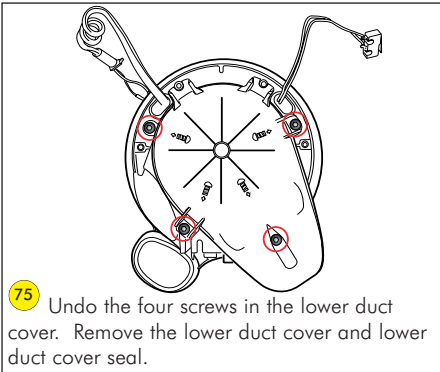
Before continuing the following parts should be removed as previously shown:

Motor assembly (pages 6 - 9)

Yoke assembly (pages 11 to 12)

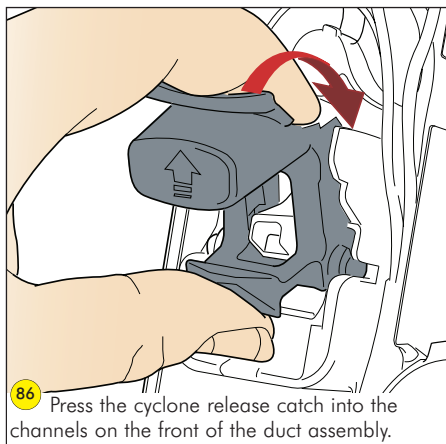
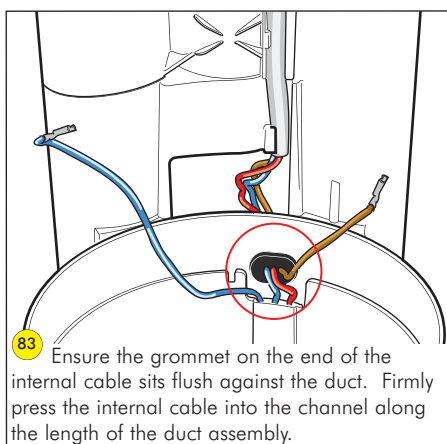
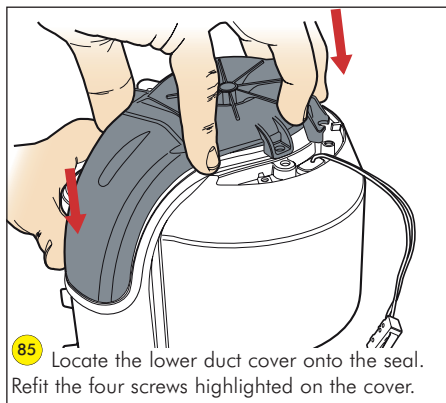
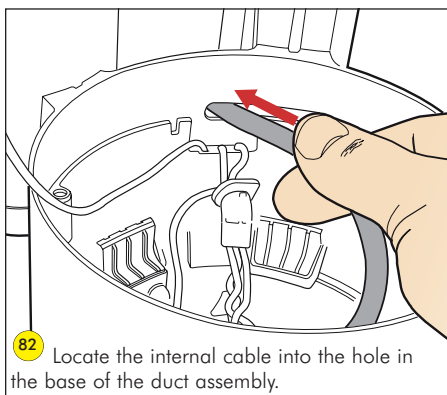
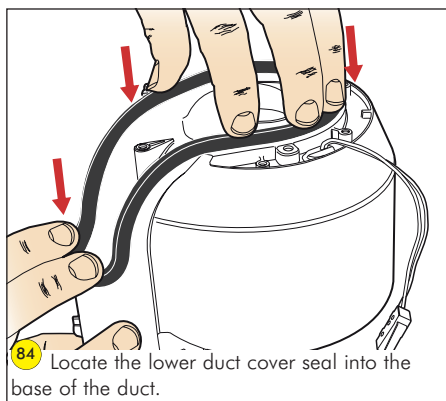
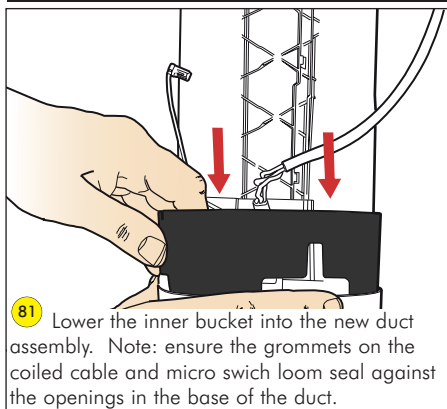
Undercarriage assembly (pages 14 - 15)

Switch cover and powercord (page 17).

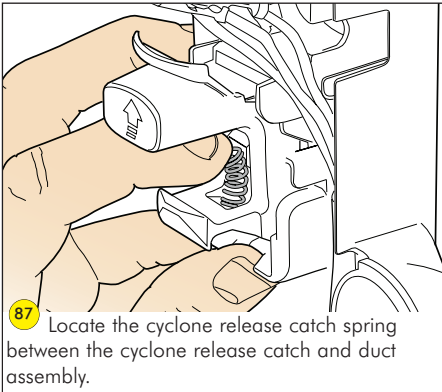


Fitting notes

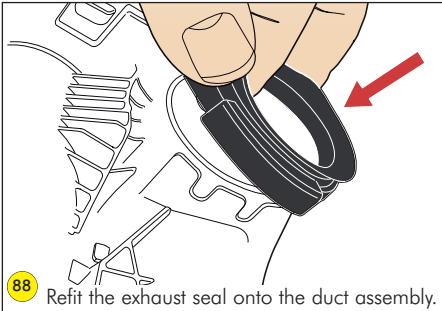
### Duct replacement - assemble



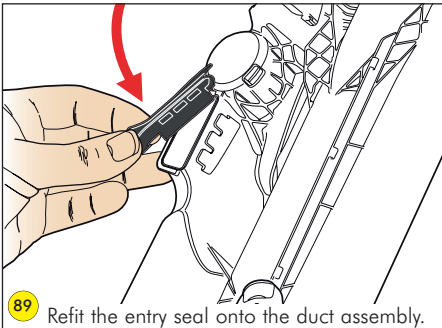




**87** Locate the cyclone release catch spring between the cyclone release catch and duct assembly.



**88** Refit the exhaust seal onto the duct assembly.

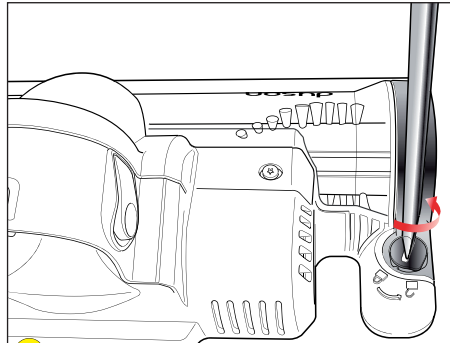


**89** Refit the entry seal onto the duct assembly.

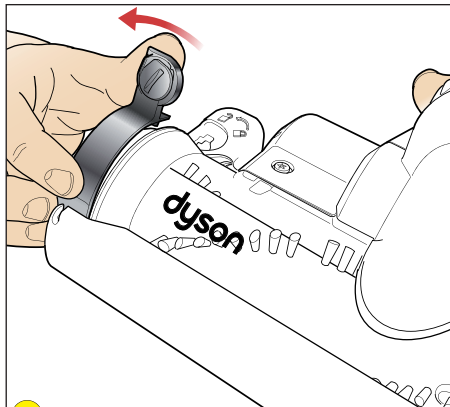
**After assembling the parts onto the duct assembly, the following parts should be fitted as previously shown:**

- Powercord and switch cover (pages 18 - 19)
- Undercarriage assembly (page 16)
- Yoke assembly (pages 13 - 14)
- Motor assembly (pages 9 - 11)

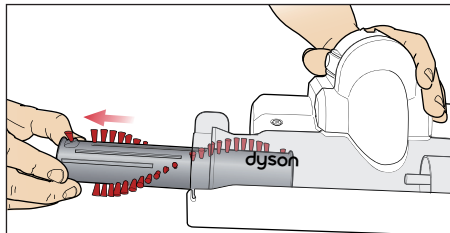
### Sub assemblies - cleaner head - dismantle



**90** Undo the endcap fasteners from either side of the brush housing using a large flat bladed screwdriver or coin.

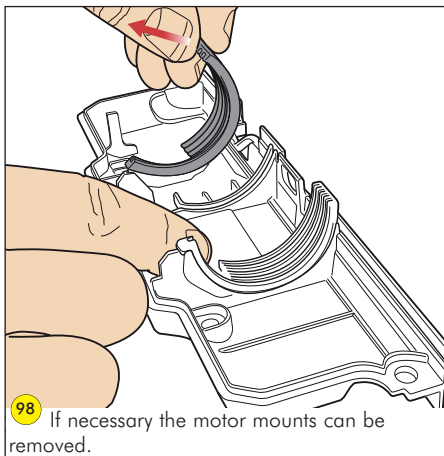
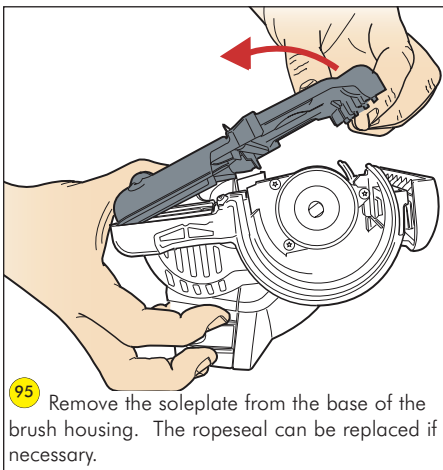
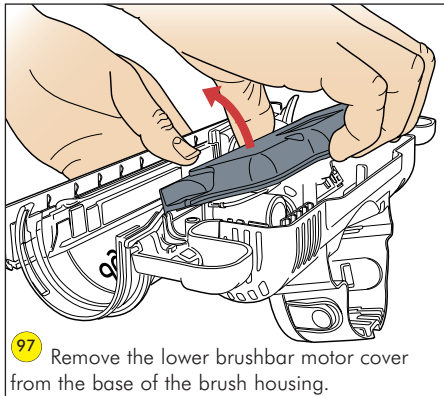
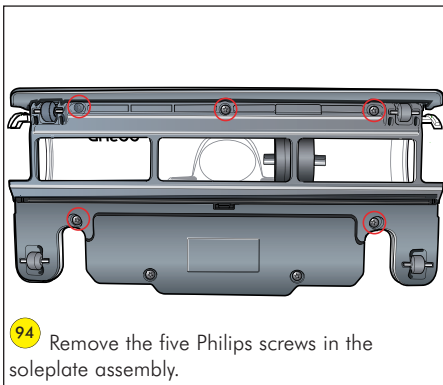
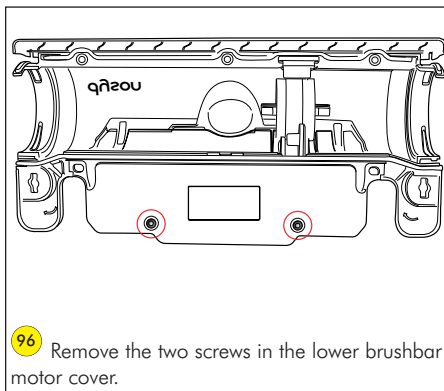
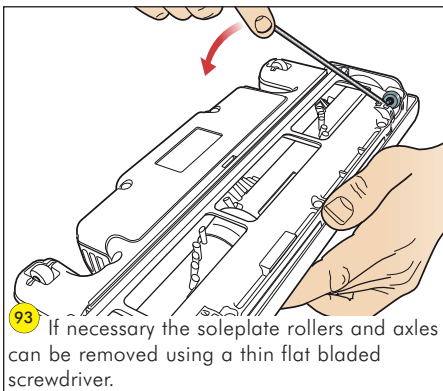


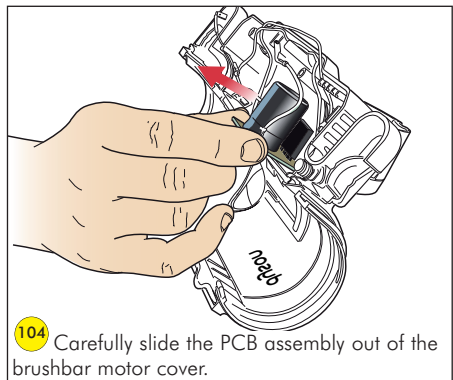
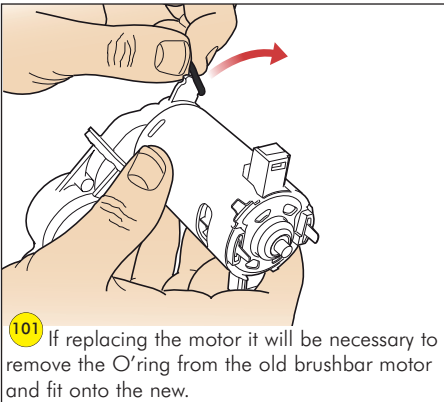
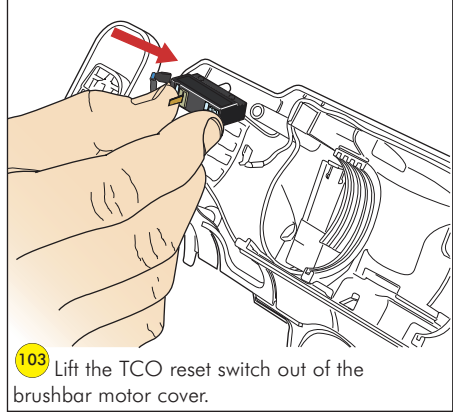
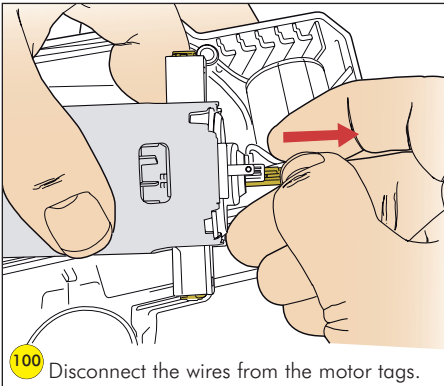
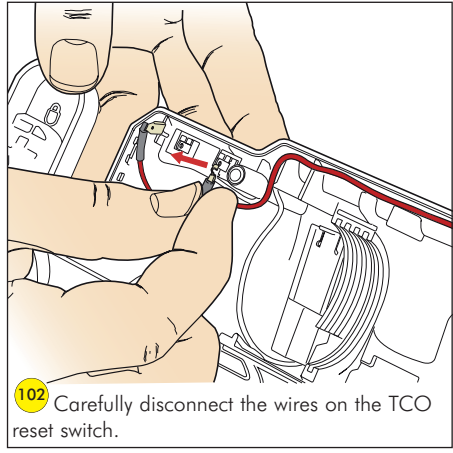
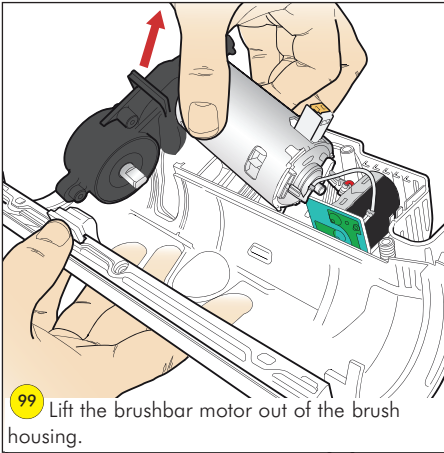
**91** Twist the endcap assemblies off either side of the brush housing.

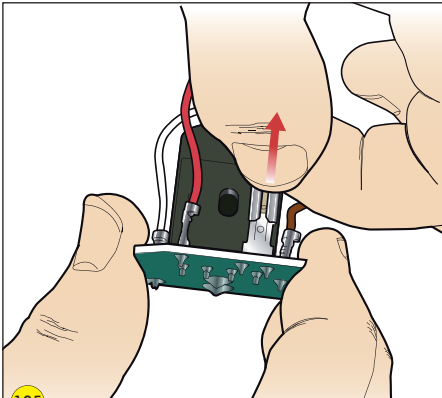


**92** Remove both halves of the brushbar assembly from the brushbar motor assembly.

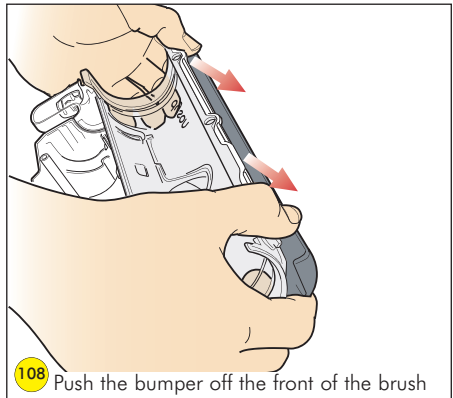
Fitting notes



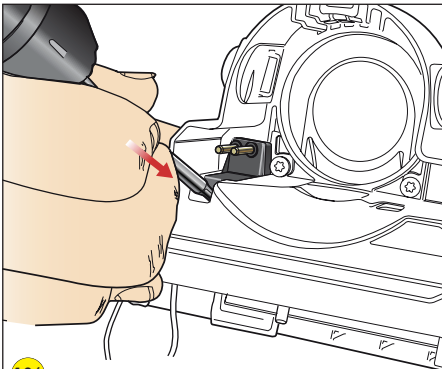




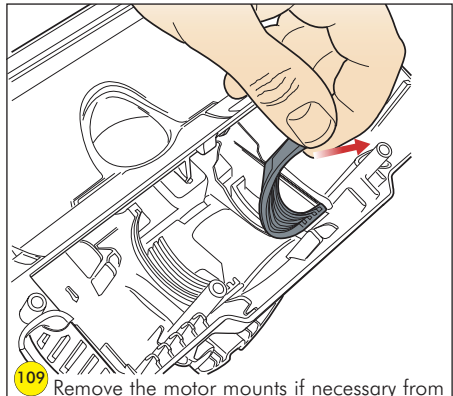
105 Carefully unclip and remove the cleaner head connector block wire from the PCB assembly.



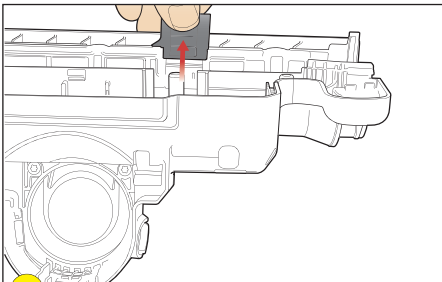
108 Push the bumper off the front of the brush housing.



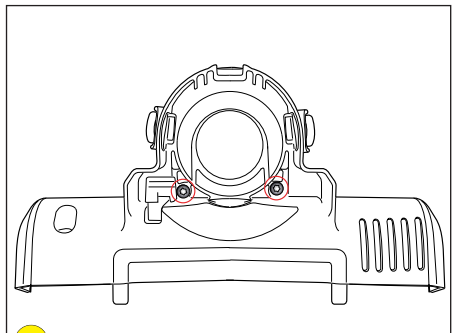
106 Release the cleaner head connector block from the brushbar motor cover using a blunt ended screwdriver.



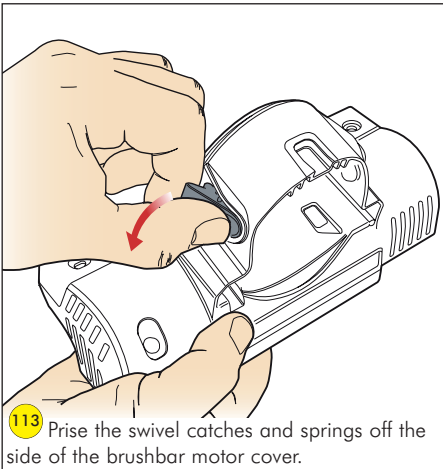
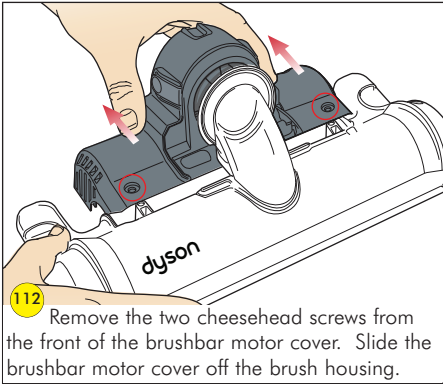
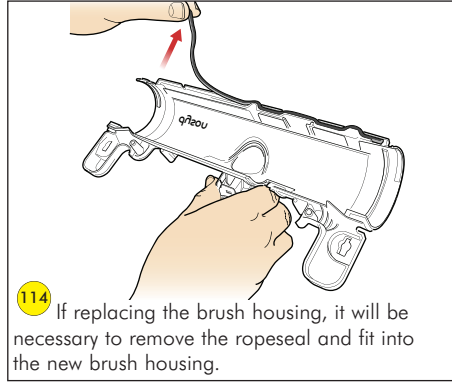
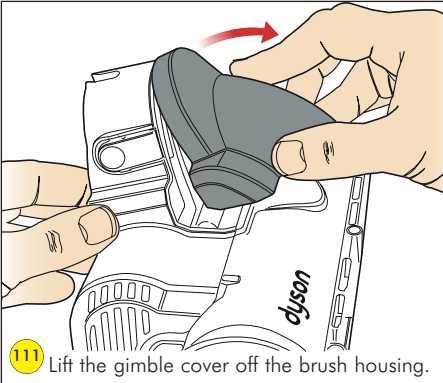
109 Remove the motor mounts if necessary from the brushbar motor cover.



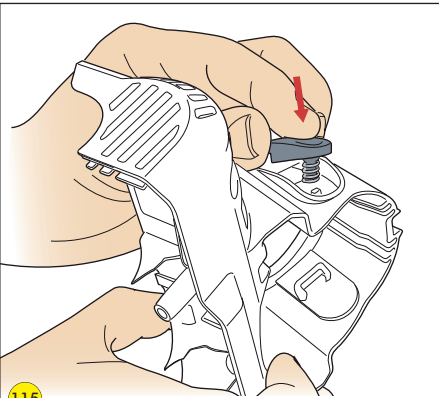
107 Remove the brushbar motor front mount from the front of the brush housing.



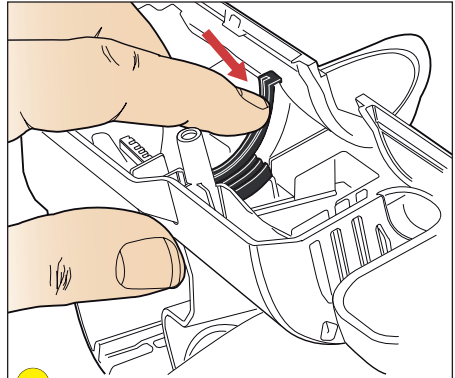
110 Undo the two cheesehead screws inside the brushbar motor cover.



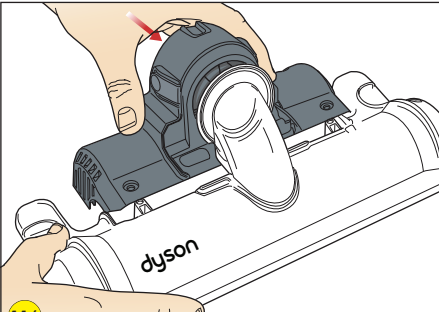
Sub assemblies - cleaner head -  
assemble



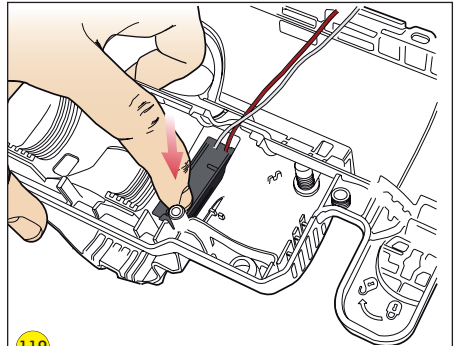
115 Align the swivel catch spring with the locator on the brushbar motor cover. Press the swivel catch into place.



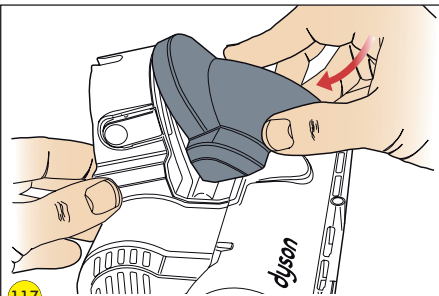
118 Refit the motor mounts onto the ribs inside the brushbar motor cover.



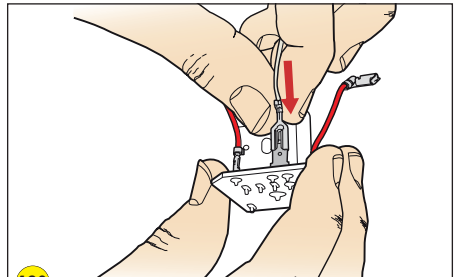
116 Slide the brushbar motor cover onto the brush housing assembly. Refit and tighten the two cheesehead screws.



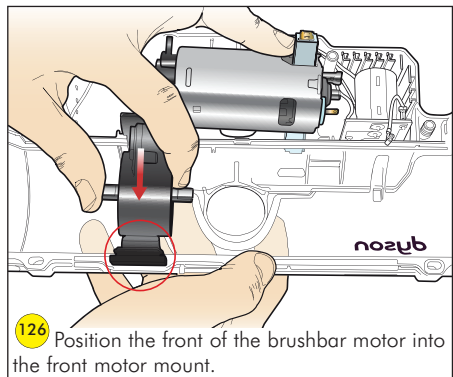
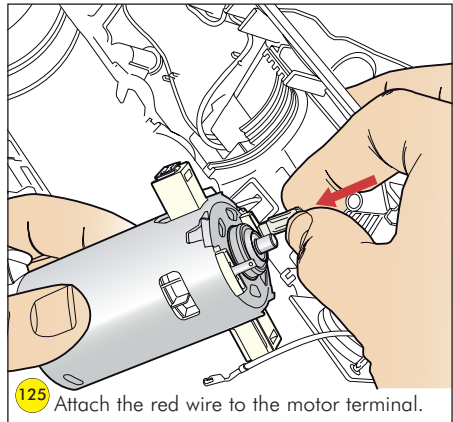
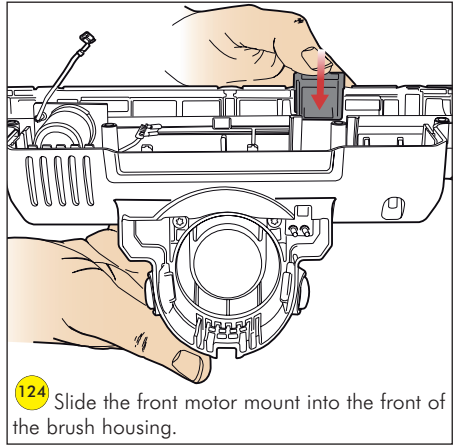
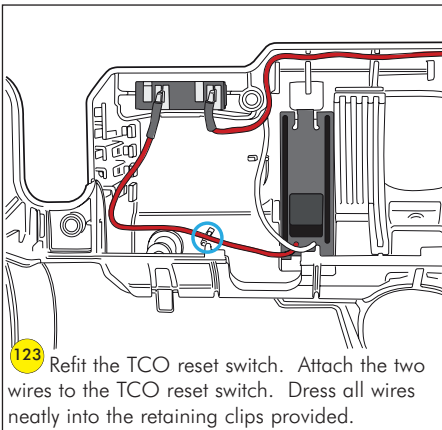
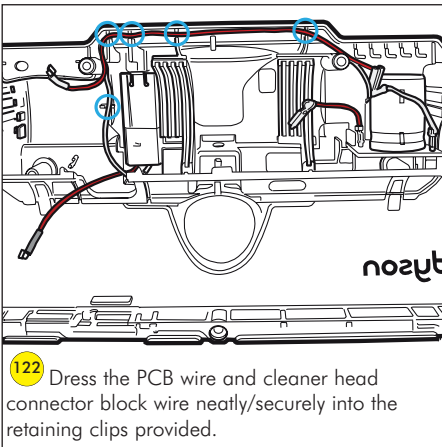
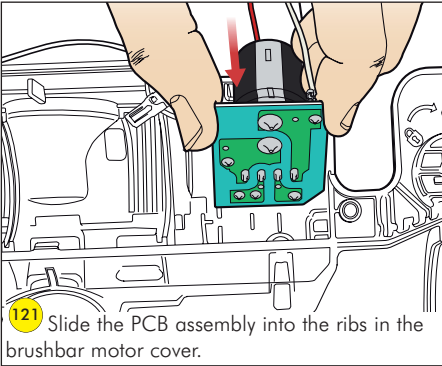
119 Locate the rear of the cleanerhead connector block onto the shelf in the brushbar motor cover. Press the front of the block into the brushbar motor cover until the catch clips into place.



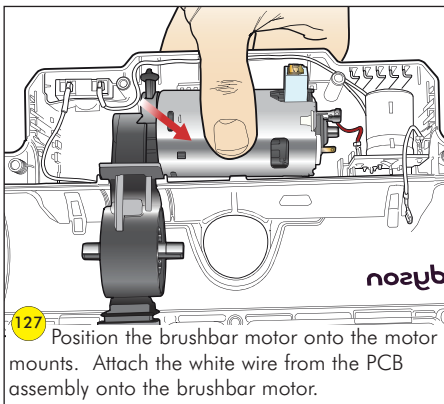
117 Refit the gimble cover onto the front of the brushbar motor cover. Refit and tighten the two cheesehead screws.



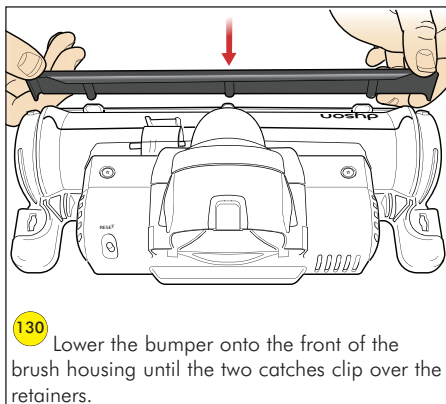
120 Reconnect the white wire from the cleanerhead connector block onto the PCB assembly.



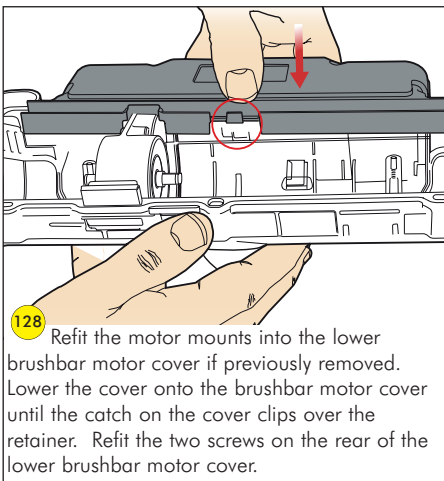
Fitting notes



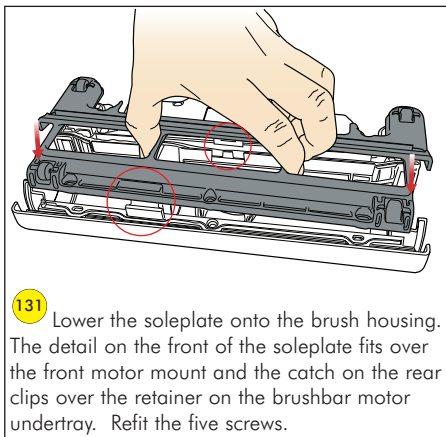
**127** Position the brushbar motor onto the motor mounts. Attach the white wire from the PCB assembly onto the brushbar motor.



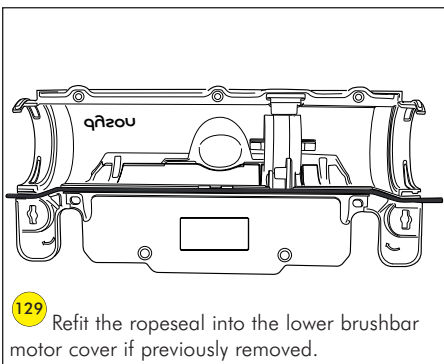
**130** Lower the bumper onto the front of the brush housing until the two catches clip over the retainers.



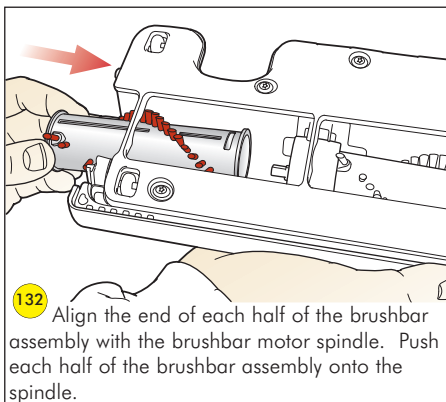
**128** Refit the motor mounts into the lower brushbar motor cover if previously removed. Lower the cover onto the brushbar motor cover until the catch on the cover clips over the retainer. Refit the two screws on the rear of the lower brushbar motor cover.



**131** Lower the soleplate onto the brush housing. The detail on the front of the soleplate fits over the front motor mount and the catch on the rear clips over the retainer on the brushbar motor undertray. Refit the five screws.

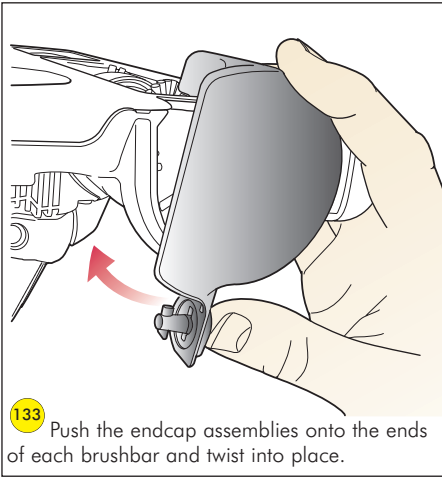


**129** Refit the ropeseal into the lower brushbar motor cover if previously removed.

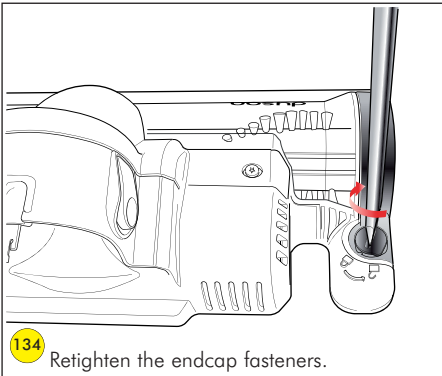


**132** Align the end of each half of the brushbar assembly with the brushbar motor spindle. Push each half of the brushbar assembly onto the spindle.



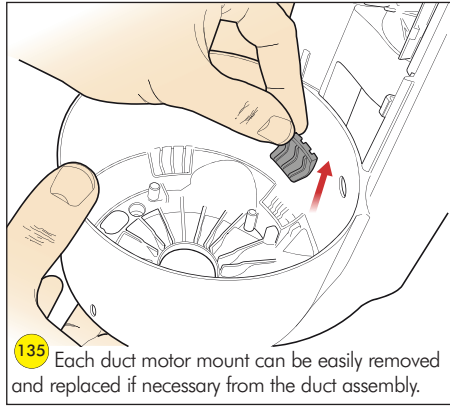


**133** Push the endcap assemblies onto the ends of each brushbar and twist into place.

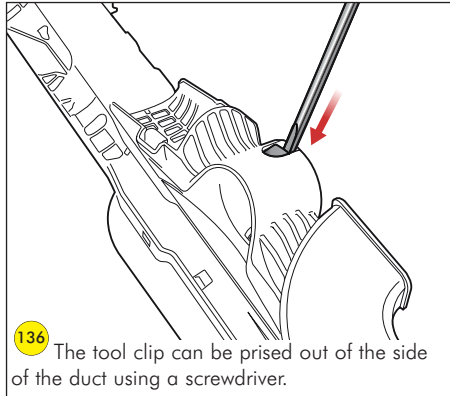


**134** Retighten the endcap fasteners.

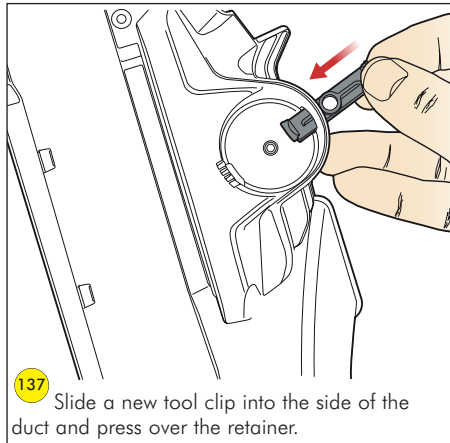
### Sub-assemblies - duct assembly



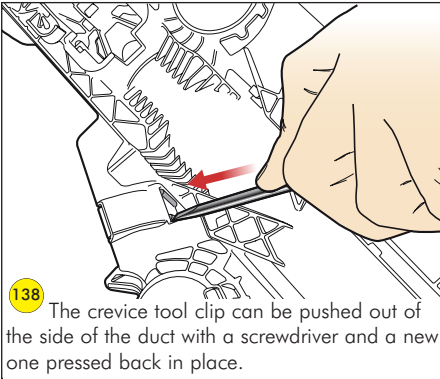
**135** Each duct motor mount can be easily removed and replaced if necessary from the duct assembly.



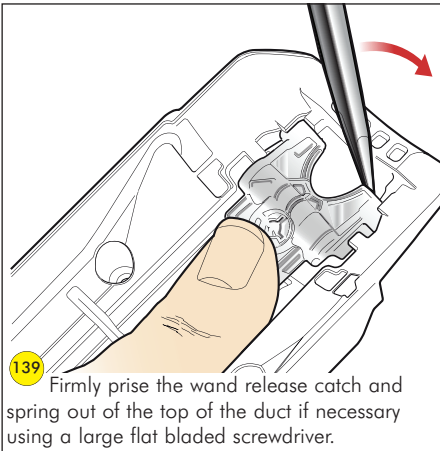
**136** The tool clip can be prised out of the side of the duct using a screwdriver.



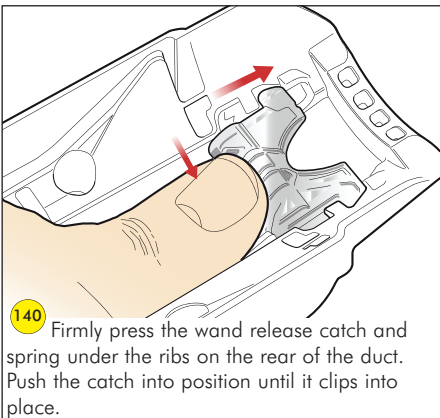
**137** Slide a new tool clip into the side of the duct and press over the retainer.



**138** The crevice tool clip can be pushed out of the side of the duct with a screwdriver and a new one pressed back in place.

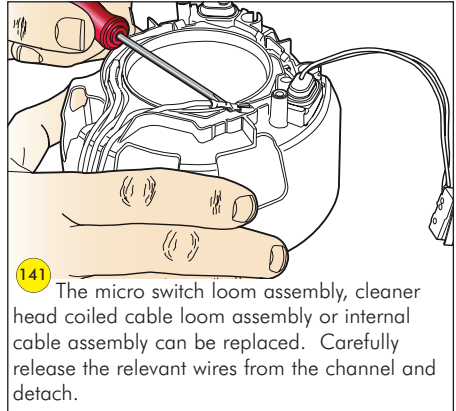


**139** Firmly prise the wand release catch and spring out of the top of the duct if necessary using a large flat bladed screwdriver.

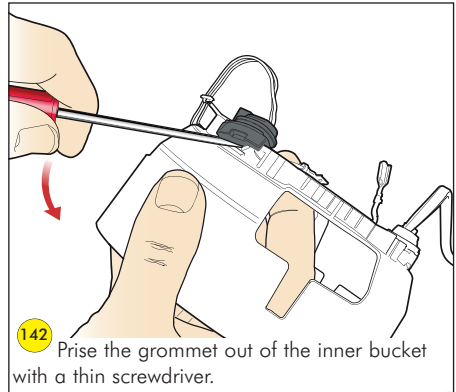


**140** Firmly press the wand release catch and spring under the ribs on the rear of the duct. Push the catch into position until it clips into place.

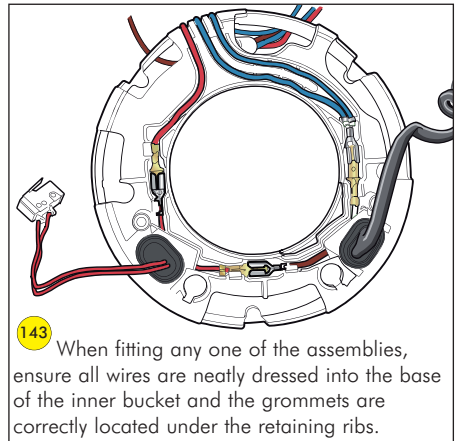
### Sub-assemblies - internal cable looms assembly



**141** The micro switch loom assembly, cleaner head coiled cable loom assembly or internal cable assembly can be replaced. Carefully release the relevant wires from the channel and detach.

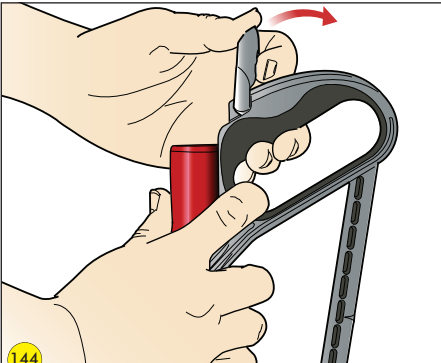


**142** Prise the grommet out of the inner bucket with a thin screwdriver.

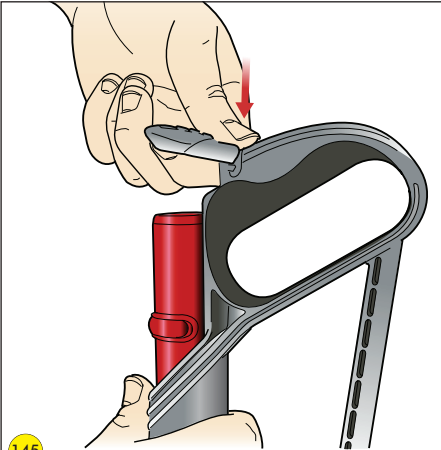


**143** When fitting any one of the assemblies, ensure all wires are neatly dressed into the base of the inner bucket and the grommets are correctly located under the retaining ribs.

**Sub-assemblies - wand assembly**

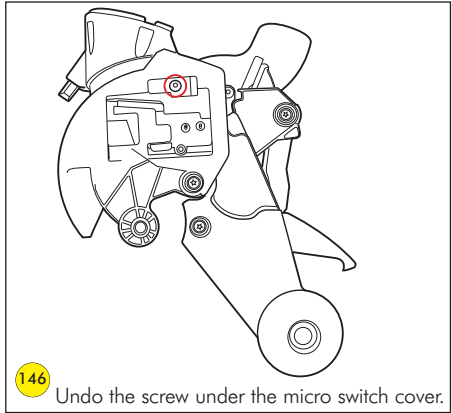


**144** The only part available separately from the wand handle assembly is the wand cap. To remove simply push off the top of the wand handle assembly.

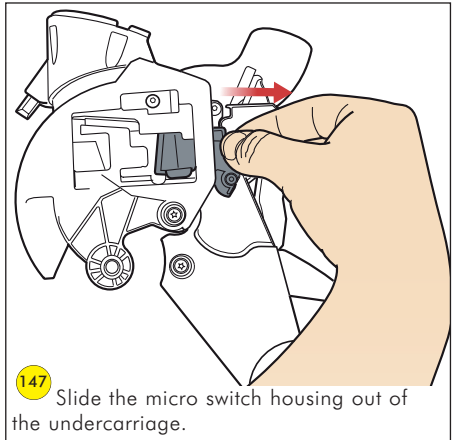


**145** To refit, push firmly onto the retainers on the wand handle assembly.

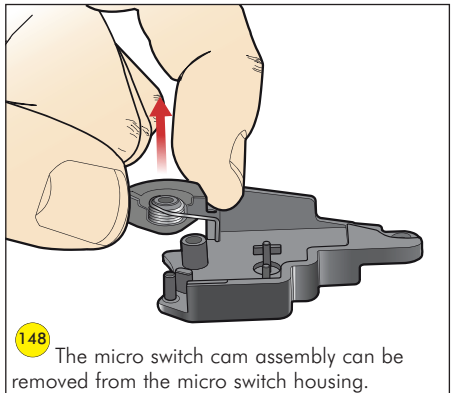
**Sub-assemblies - undercarriage assembly**



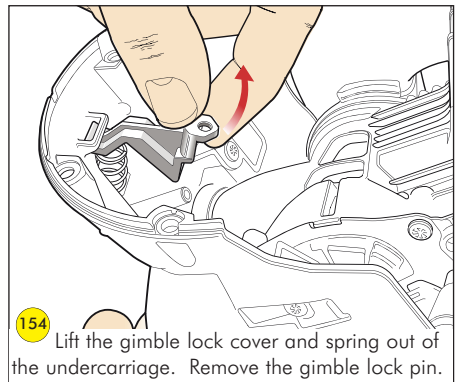
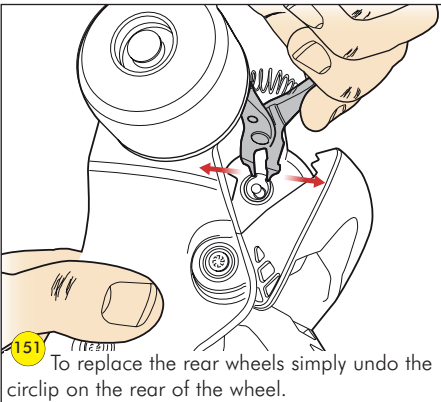
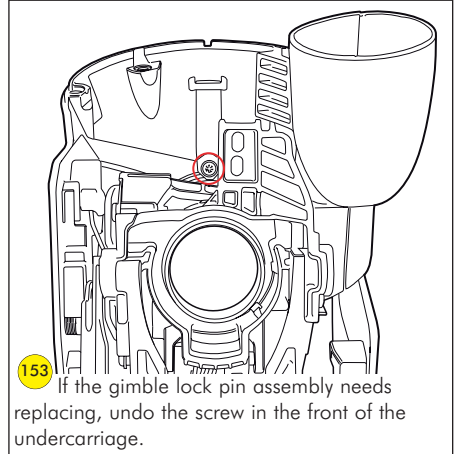
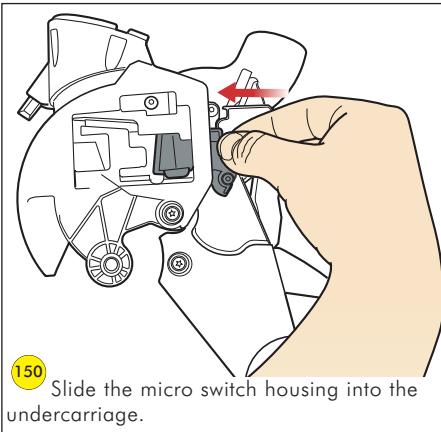
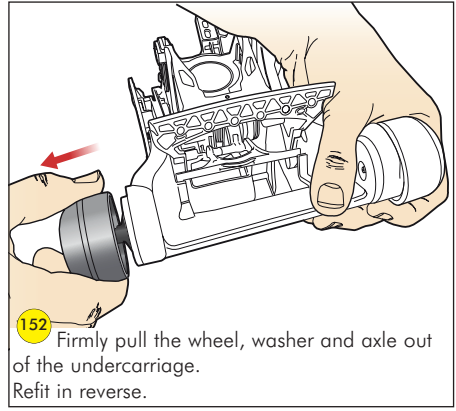
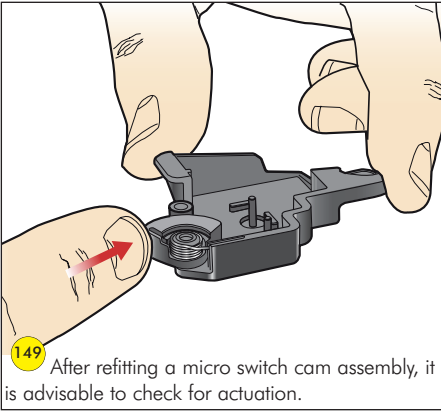
**146** Undo the screw under the micro switch cover.



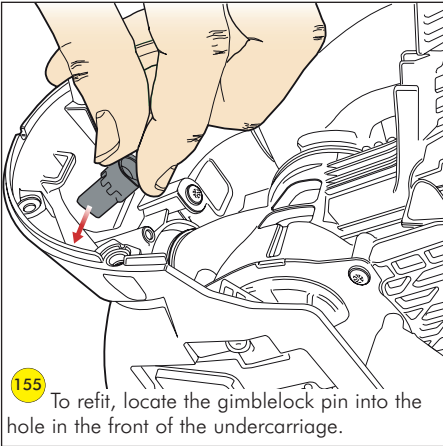
**147** Slide the micro switch housing out of the undercarriage.



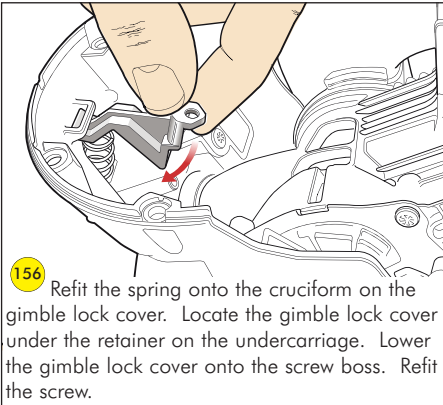
**148** The micro switch cam assembly can be removed from the micro switch housing.



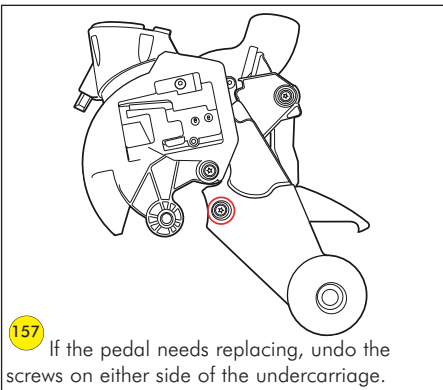
Fitting notes



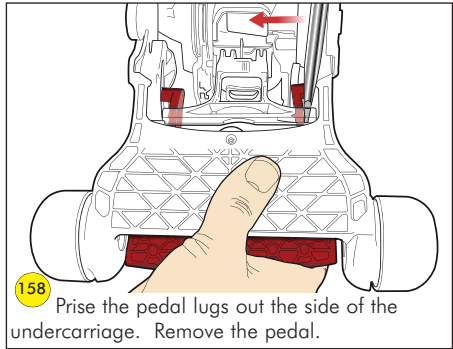
**155** To refit, locate the gimblelock pin into the hole in the front of the undercarriage.



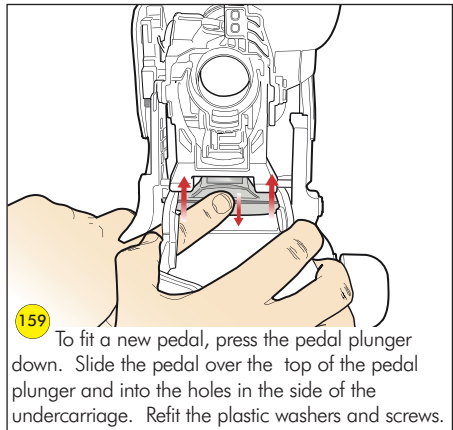
**156** Refit the spring onto the cruciform on the gimble lock cover. Locate the gimble lock cover under the retainer on the undercarriage. Lower the gimble lock cover onto the screw boss. Refit the screw.



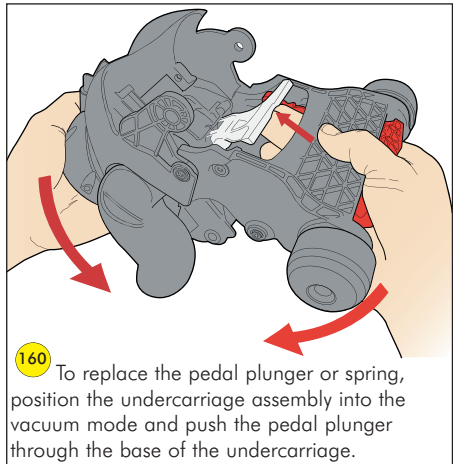
**157** If the pedal needs replacing, undo the screws on either side of the undercarriage.



**158** Prise the pedal lugs out the side of the undercarriage. Remove the pedal.

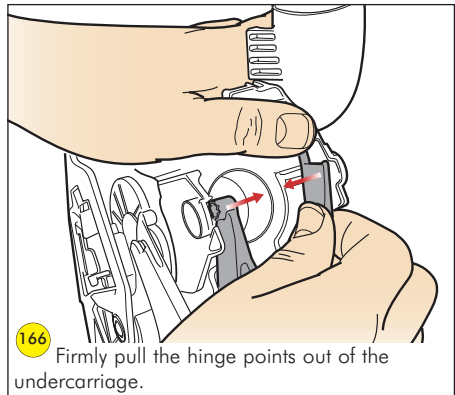
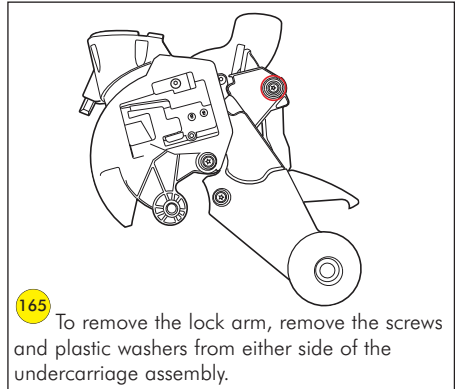
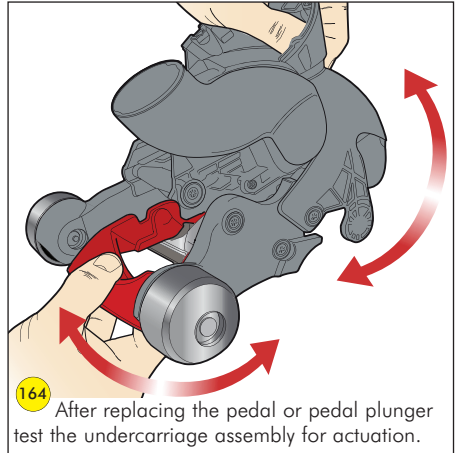
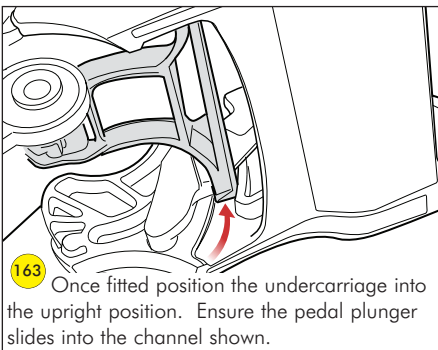
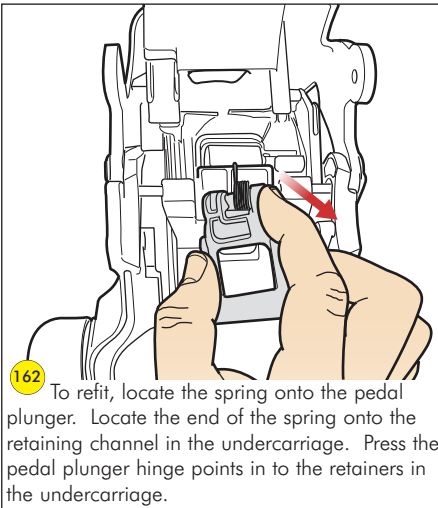
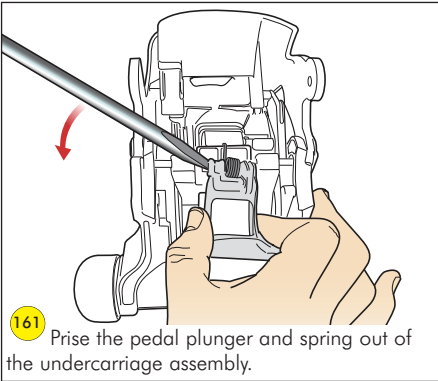


**159** To fit a new pedal, press the pedal plunger down. Slide the pedal over the top of the pedal plunger and into the holes in the side of the undercarriage. Refit the plastic washers and screws.

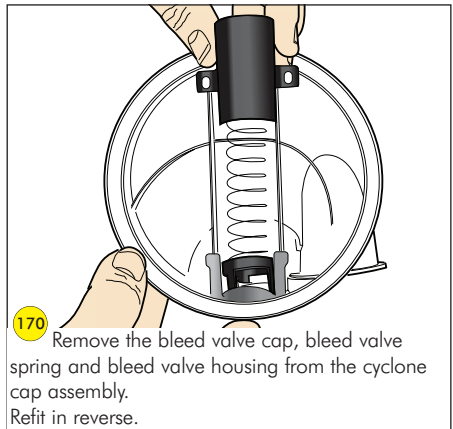
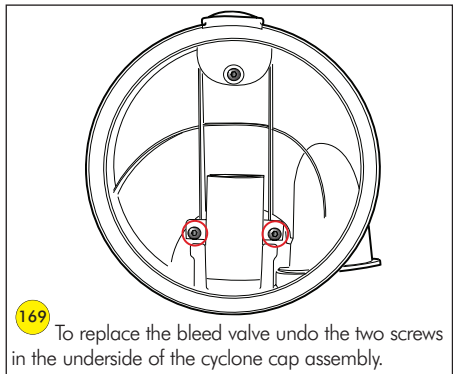
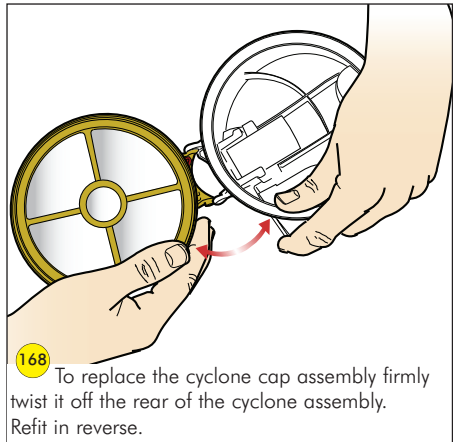
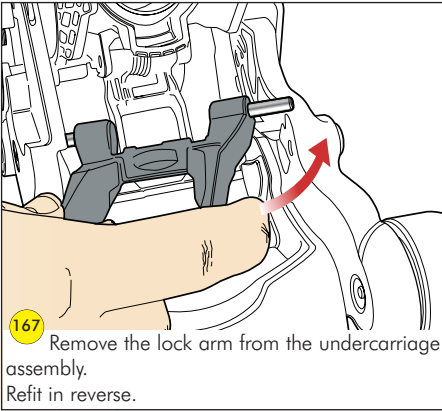


**160** To replace the pedal plunger or spring, position the undercarriage assembly into the vacuum mode and push the pedal plunger through the base of the undercarriage.

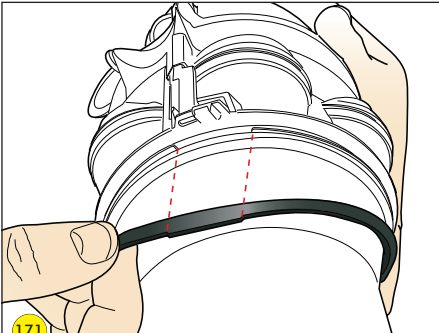
Fitting notes



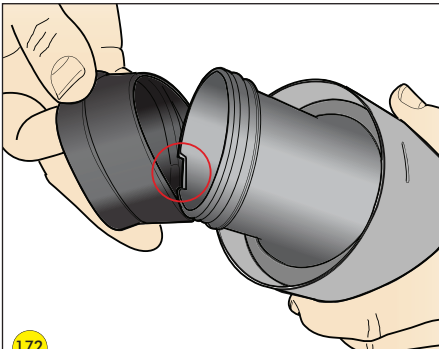
**Sub-assemblies - cyclone assembly**



Fitting notes



**171** Should it need replacing, the bin seal simply pulls off the cyclone assembly. When refitting, ensure the locating tab on the seal aligns with the recess on the cyclone assembly.

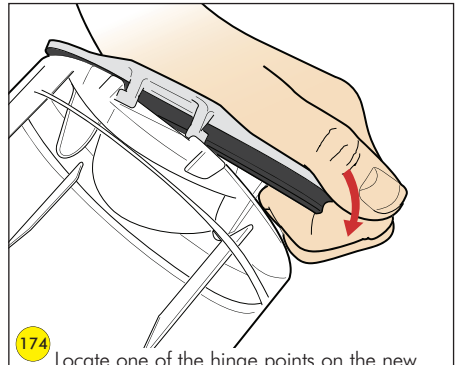


**172** The FDC seal can be removed from the bottom of the cyclone assembly. When refitting, align the locating tab with the recess. Ensure that all retaining ribs are covered by the seal.

### Sub-assemblies - bin assembly



**173** To replace the bin base assembly, activate the bin base release. Then pull the bin base away from the bin until it 'bumps' off.

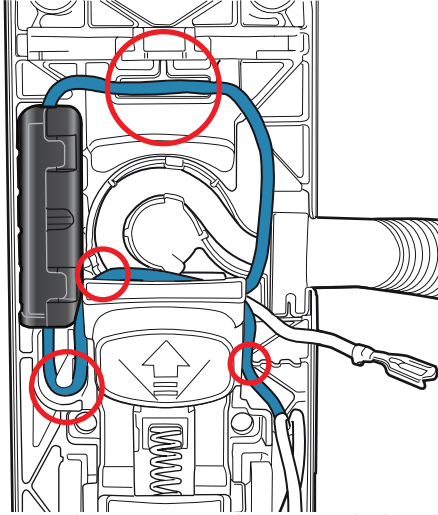


**174** Locate one of the hinge points on the new bin base assembly into the retainer on the bin. Firmly press the other hinge point into place.

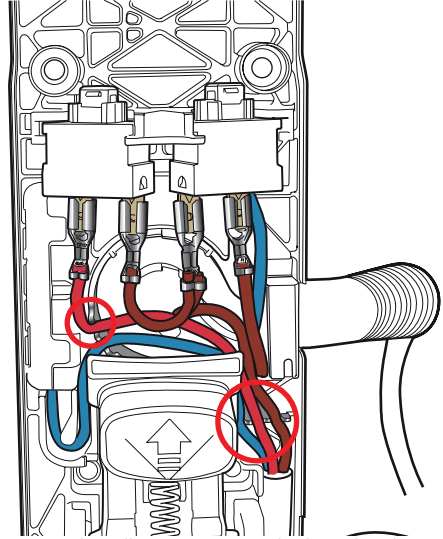


**Electrical wiring recap**

**Switch housing**



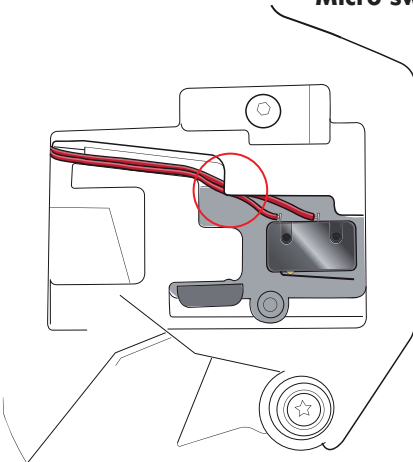
Ensure the connection insulator is securely clipped around the neutral terminals and fitted correctly into the channel provided. The neutral wires must be located securely into the retaining channels provided before fitting the switches and remaining wires.



Ensure that all wires are securely clipped to the switches. All wires must be securely located into the retaining clips provided.

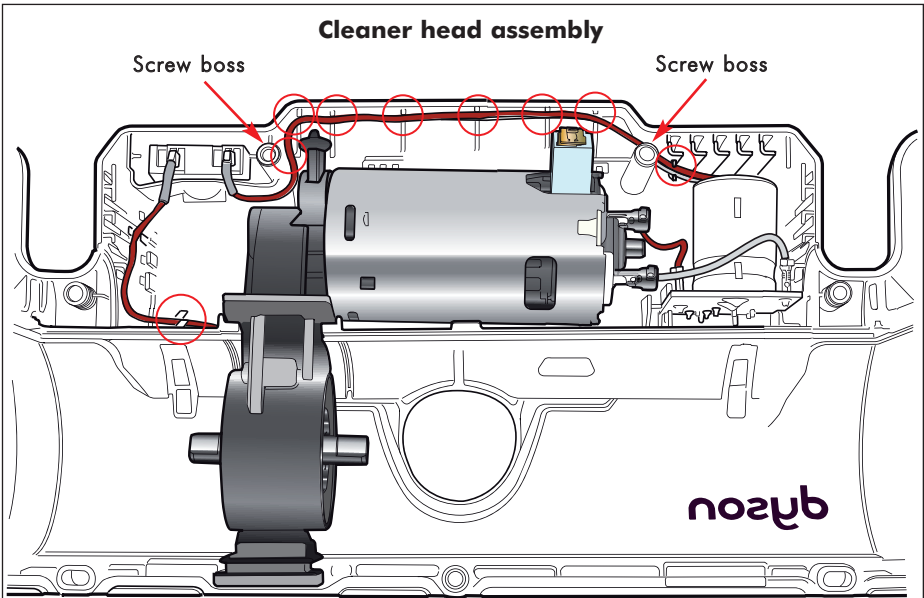
Fitting notes

**Micro switch loom**

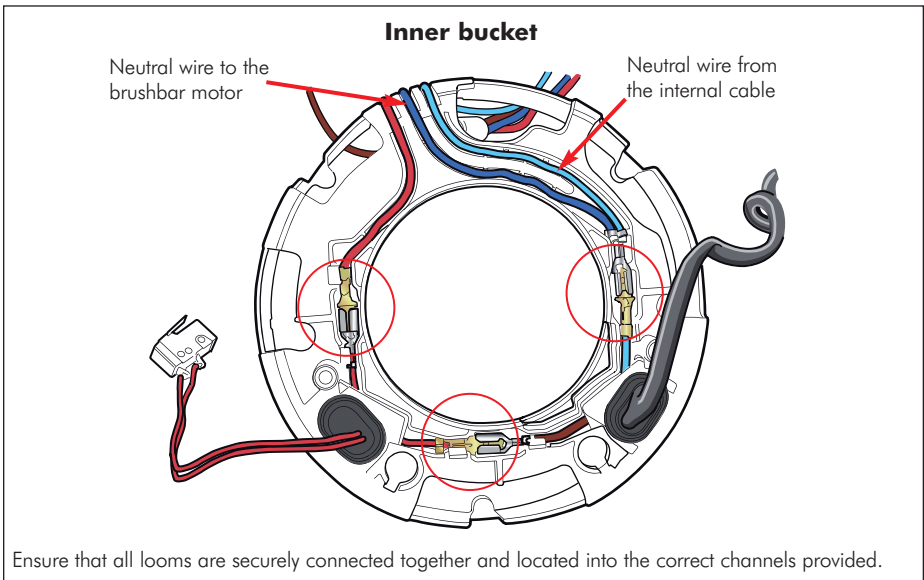


Ensure the micro switch is located onto the two locating pegs on the micro switch housing.

Ensure the wires are neatly dressed within the micro switch housing and that there is no possibility of either being trapped when fitting the micro switch cover.

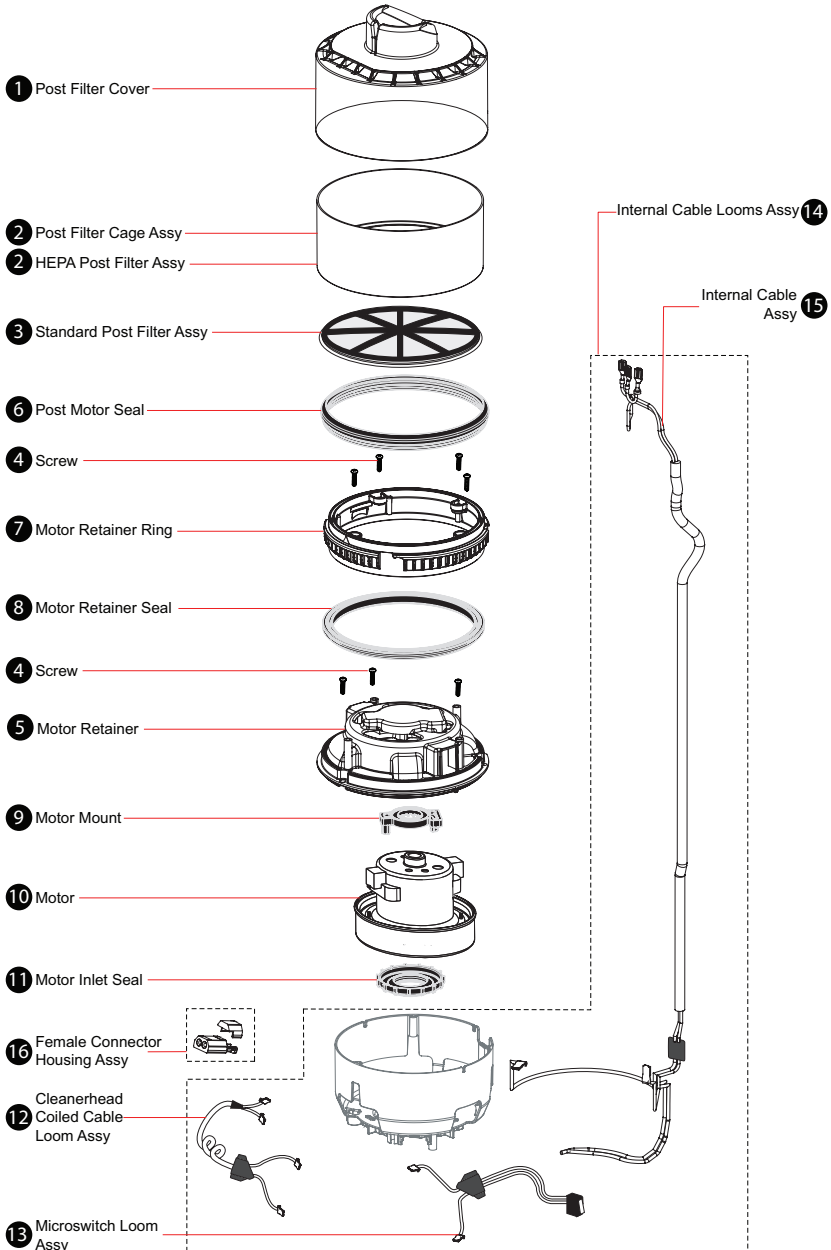


Ensure that the wires from the PCB assembly and cleaner head connector block are securely located into all retaining clips provided and are clear of any screw bosses.



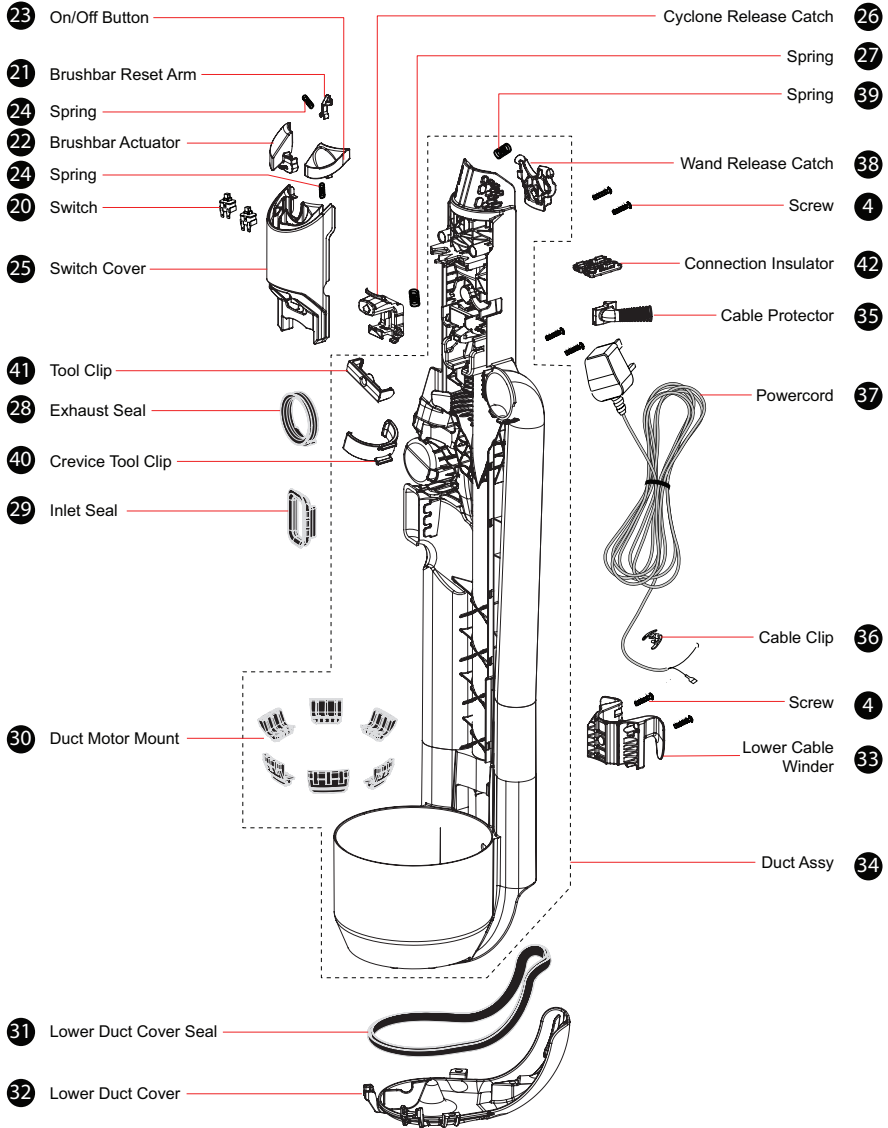
Ensure that all looms are securely connected together and located into the correct channels provided.

**Motor, post filter and internal cable assembly**



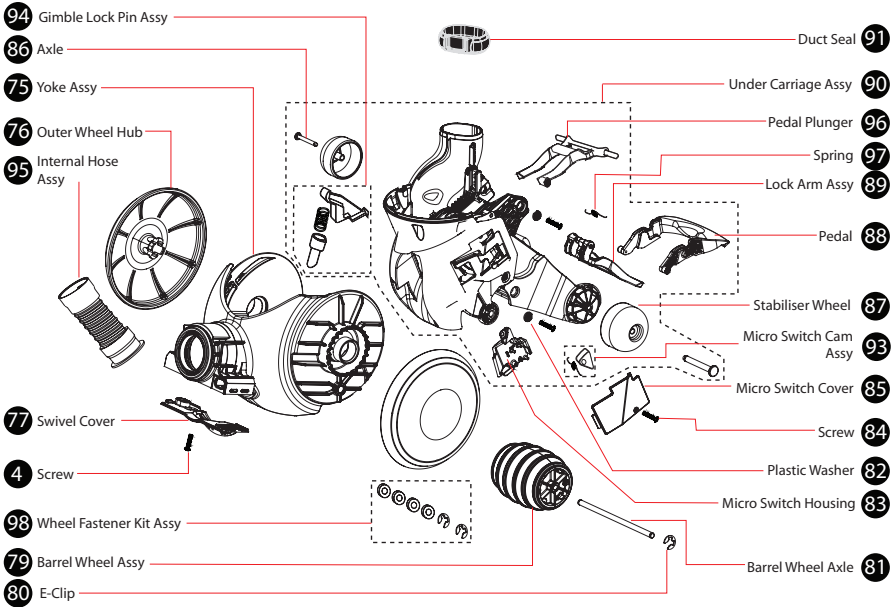
Parts

**Duct assembly, switch housing and powercord**

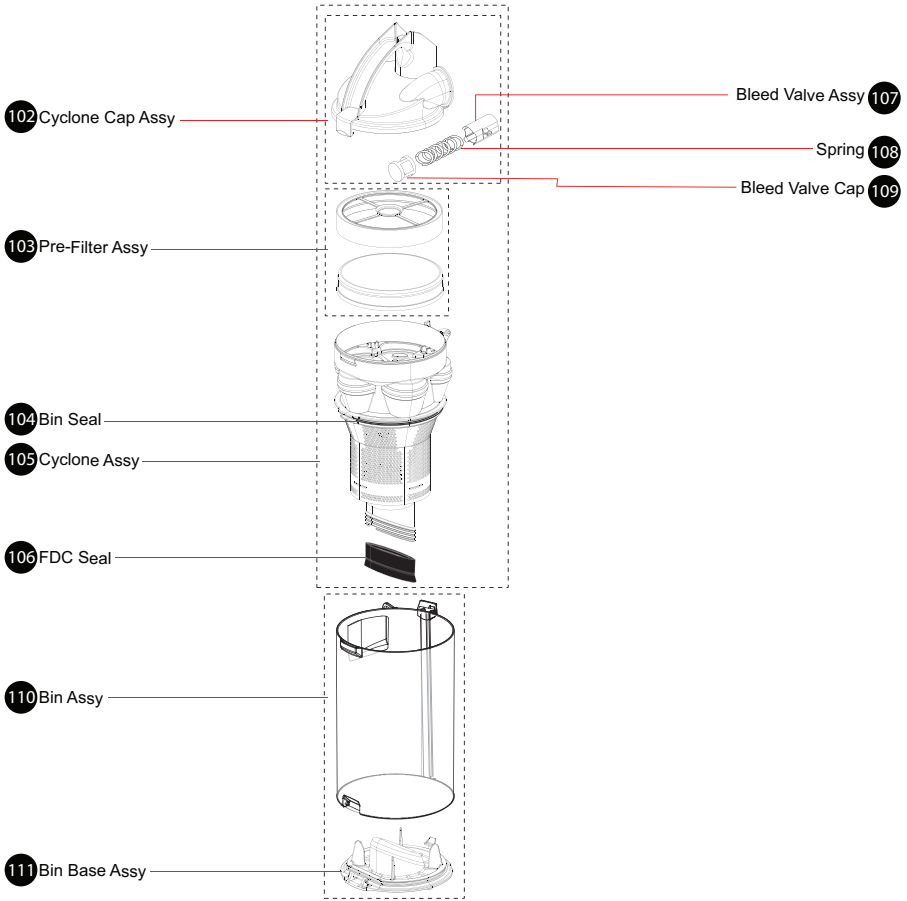


Parts

## Undercarriage and yoke assembly

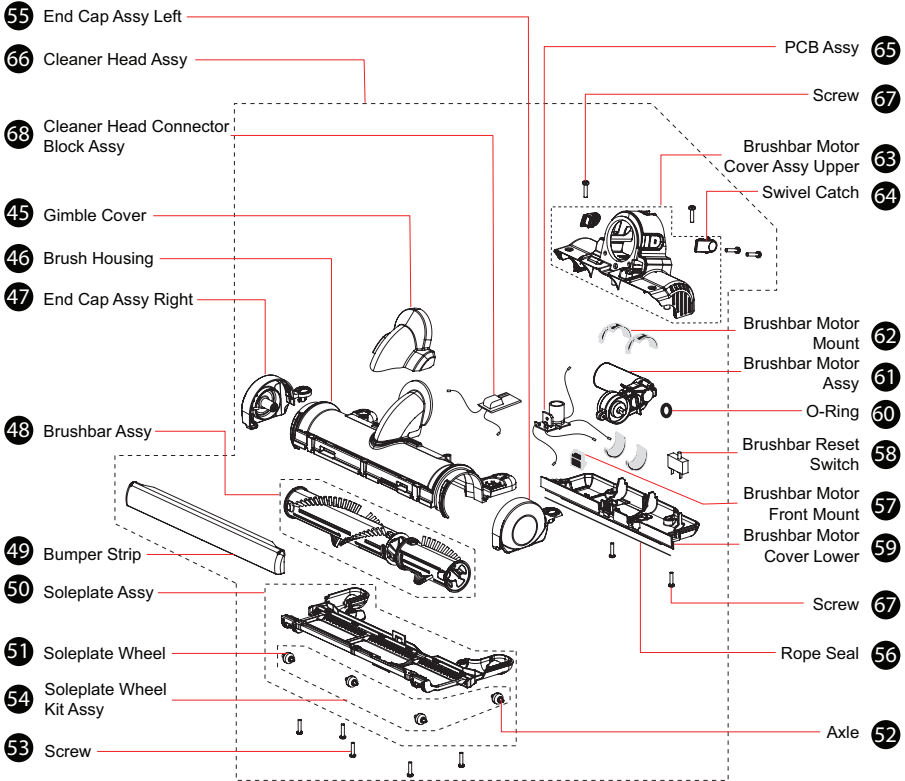


## Cyclone and bin assembly



Parts

## Cleaner head assembly



**Wand and hose assembly**

