

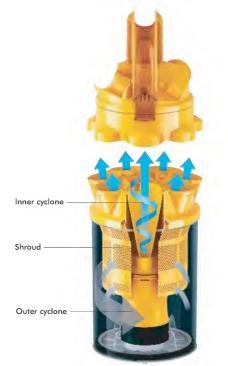








How patented Root Cyclone[™] technology doesn't lose suction



Constant suction in the **outer cyclone** seperates large dirt and debris. The **shroud** filters out fluff and hair, then centrifugal forces of 200,000 Gs in the **inner cyclones** spin the finest harmful particles into the bin. Dust is kept away from the filters, so it doesn't lose suction. Air expelled is 150 x cleaner than the air you breathe.





The manual has been provided to you on the condition that you, your employees, affliates, contractors, agents and representatives will keep confidential the contents of the manual, and will not disseminate, distribute, or copy the manual, or otherwise display the manual for any other purpose other than for reference during servicing of vacumes. The manual is provided under limited license, and must be returned to Dyson immediately upon request.

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1.1 Introduction

This manual is written specifically for Dyson trained engineers and covers the DC14 Root⁸ cyclone[™] range. The service instructions assume the engineer has the approved tools and test equipment with them.

1.2 Variants

overview



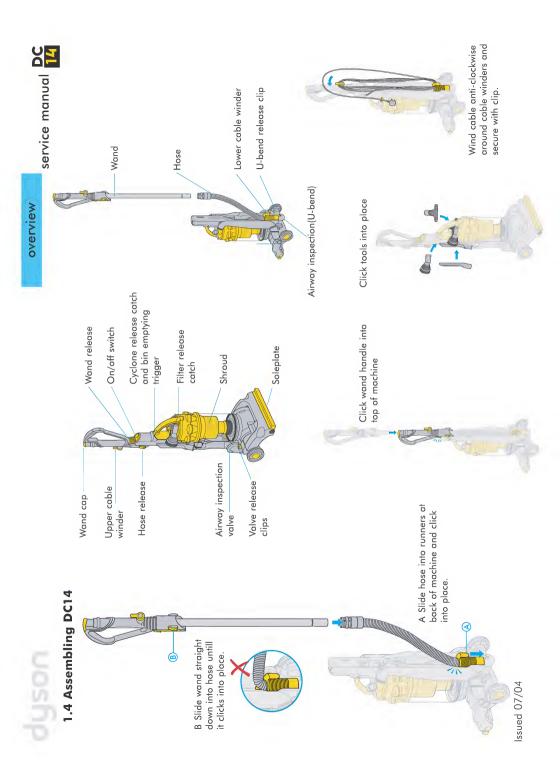
The DC14 range advances on from the DC07. The main developments are the telescope reach wand, a quick release wand with no awkward parts to assemble for instant high-reach cleaning. The large debris channel, an additional front channel on the cleaner head means that larger dirt and debris is not snowploughed across a smooth floor, so you can pick up bigger bits such as rice and nuts first time. A lowered handle for easier carrying. All DC14 machines incorporate one-touch bin emptying to avoid contact with dust. The animal variant also includes a dyson designed Mini Turbine Head, ideal for removing pet hair and fibres from confined spaces such as upholstery, stairs and the car.

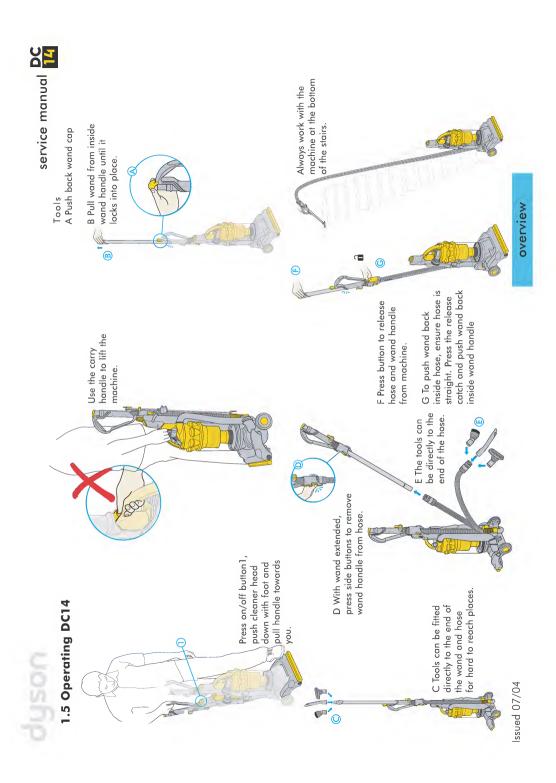




1.3 Specifications

	DC14	DC14	DC14	DC14
	telescope reach	all floors	allergy	animal
	steel/yellow	steel/white	steel/steel	steel/lavender
Root [®] Cyclone™	\checkmark	\checkmark	\checkmark	\checkmark
Airwatts (constant)	280	280	280	280
Pre-filter	Lifetime	Lifetime	Lifetime	Lifetime
Post-filter	Pad	Pad	HEPA	HEPA
Telescope reach wand	\checkmark	\checkmark	\checkmark	\checkmark
Brush control	×	\checkmark	\checkmark	\checkmark
Trigger bin emptying	\checkmark	\checkmark	\checkmark	\checkmark
Large debris channel	×	\checkmark	\checkmark	\checkmark
Mini turbine head	×	×	×	\checkmark
Bin capacity	2.5 litres	2.5 litres	2.5 litres	2.5 litres
Cable length	8.2m	8.2m	8.2m	8.2m
Maximum reach	13.6m	13.6m	13.6m	13.6m
Height	1140mm	1140mm	1140mm	1140mm
Width	355mm	355mm	355mm	355mm
Depth	340mm	340mm	340mm	340mm
Operational weight	8.5kg	8.5kg	8.5kg	8.5kg
Motor	1350w	1350w	1350w	1350w





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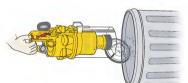
1.6 Emptying the clear $bin^{ m w}$



Empty the clear binTM as soon as the MAX mark is reached. Press catch 1 to release cyclone from machine.

Option A

Push the button as shown to release the bin base and empty directly into dustbin.



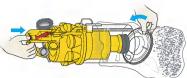
Option B Emptying into a bag is recommended for allergy sufferers. Place bin in bag and pull trigger to release bin base.



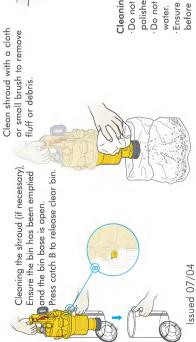
Let the dust settle, close bin base securely before removing from bag. Place back onto machine.

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overview



1.7 Cleaning the clear bin[™] and shroud





Cleaning the clear bin^{the} Do not use detergents, polishes or freshening products. Do not immerse the cleaner in voter.

Ensure the bin is completely dry before refitting.



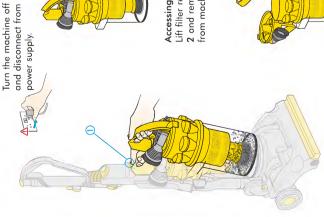
Replacing the shroud A Hold the carry handle and place the cyclone into the clear bin. B Line up the catches and push down to click into place. Ensure the clear bin is secure before, replacing on the







1.8 Washing the pre-motor filter



The filter may require washing more frequently if vacuuming fine dust. Press catch 1 to release cyclone pack.



Lift filter release catch Accessing the filter 2 and remove filter from machine.









oven, tumble dryer, microwave dishwasher, washing machine, Wash filter and case in cold Only wash blue foam and Do not put the filter in the or near a naked flame. ·Do not use detergent. A. Washing the filter yellow case. water only.









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C Dry for at least 12 hours.

completely dry before refitting Ensure filter and case are onto the machine.

overview

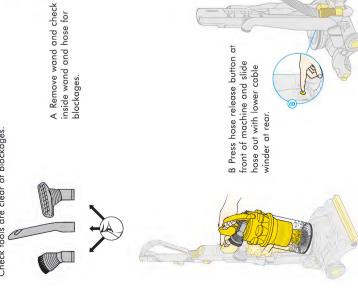


overview

1.9 Finding and clearing blockages

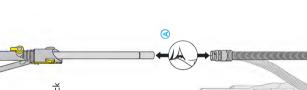


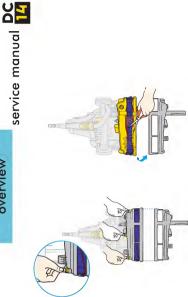
Check tools are clear of blockages.



Remove cyclone assembly.

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Lie cleaner on its front. Undo fasteners using Replace soleplate and tighten fasteners. Remove fluff and hair from brushbar. a coin and remove soleplate. Brushbar obstruction

catches and check inside for D Squeeze valve release Air way inspection blockages.



U bend inspection C Tilt machine forward, slide out U bend and check inside for blockages.

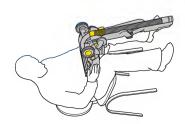
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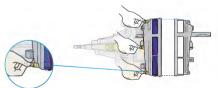
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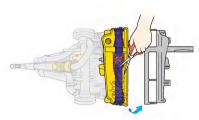
Turn the machine off and disconnect from power supply.

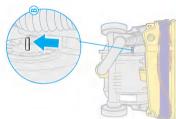


Remove wand and turn machine upside down.



A Undo fasteners using a coin, slide back the end caps and remove the soleplate.





and check spindle is clean. B Remove dirt and debris



C To replace the belt, remove the brushbar, brushbar and feed loop belt around through hole.

the belt 90 degrees, stretch and

release over spindle. Belt must be free of twists as shown.

E Use back of cleaner as lever,

loop belt around thumb. Turn



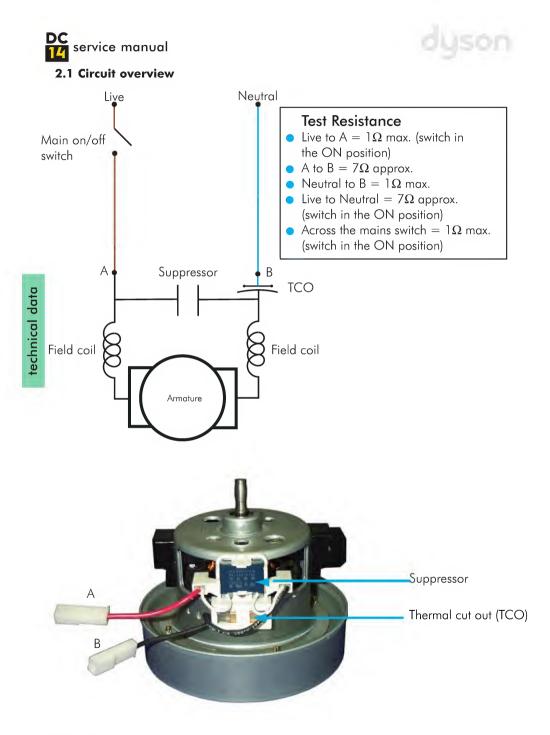
D Check end caps are in place.



inside of yellow bumper strip and secure soleplate back F Rest the three tabs on into position.

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overview



2.2 Electrical safety testing

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

Socket polarity check

999

TEST

Test the socket outlet using the 3-pin test unit to ensure that the socket is correctly wired and earthed.

Insulation test

The following test 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. This is vital to avoid any possibilities of personal injury to the end user.

> The AVO MEGGER BM401/2 can be used to test the electrical insulation of a Class II appliance; it indicates any electrical leakaae.

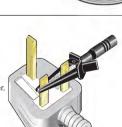
Procedure for use:

Ensure daily functionality checks on the Megger meter have been completed.

- 1. Set the range selector switch to 500V position.
- 2. Ensure the mains switch of the product to be tested is in the on position.
- 3. Attach the black crocodile clip to the live and neutral pins of the mains plug (bonded).
- 4. Connect the red crocodile clip to the shaft of a thin, flat bladed screwdriver.
- 5. Remove the motor inlet cover.
- 6. Locate the screwdriver through the motor housing grille, onto the motor fan.
- 7. Press down and hold the 'Test' button on the meter. Record the reading.

A reading of between $3M\Omega$ and >999 is acceptable. $2M\Omega$ is the minimum legal requirement. A reading of below $3M\Omega$ is not to Dyson standards and is not considered safe, further investigation and rectification must be made before the product is used. the following components must be visually inspected: Mains power cord, internal power cord, switch, motor and carbon build up in the motor housing.

If you cannot repair a product with an insulation test reading of below $3M\Omega$ you must inform the customer that it 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 you must indicate on your paperwork that the product is electrically unsafe! You must also fit a warning sticker in a visible location on the product.











3.1 General note

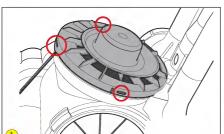


Before attempting any repairs it is vital to ensure that the product is totally isolated from the mains supply and that accidental reconnection cannot occur.

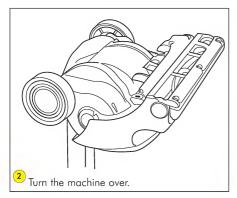
Please ensure that safety goggles are worn at all times whilst servicing Dyson vacuums.

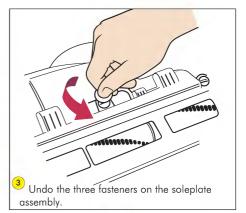
3.2 Dismantle main body

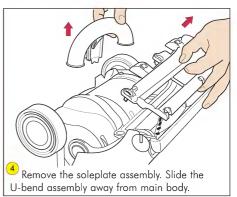
Remove the cyclone and the bin assembly from the main body. Release the wand catch and unclip the wand from the duct. Press the hose release catches and remove the wand assembly from the hose, then detach the hose from the main body. Remove the motor inlet cover.



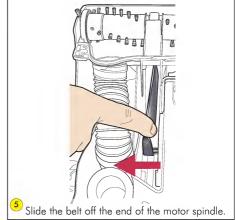
Squeeze the release catches to remove the valve pipe assembly. Carefully release the three catches on the post filter lid using a thin, flat bladed screwdriver. Remove the post filter lid and post filter.







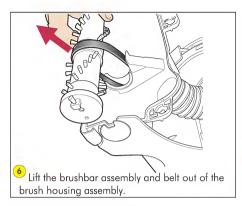
Clutchless variant only



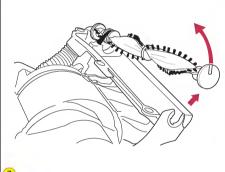
fitting notes



service manual

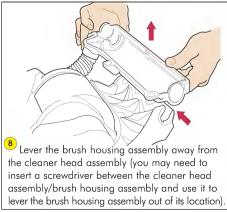


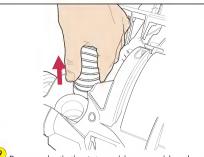
Clutch variants only



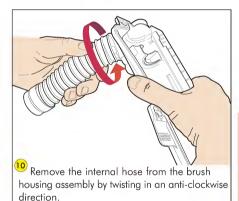
Lift the brushbar assembly from the endcap locations and pivot free through the belt.

All models

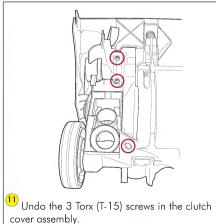




⁹ Remove both the internal hose and brush housing assembly by firmly pulling the internal hose away from the port plate.

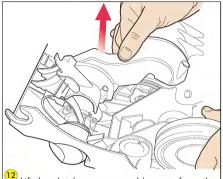


Clutch variants only







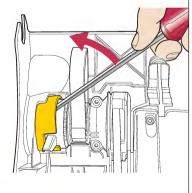


¹² Lift the clutch cover assembly away from the clutch assembly.



fitting notes

¹³ Turn machine over and prise the outer clutch actuator away from clutch assembly using a thin, flat bladed screwdriver where shown.

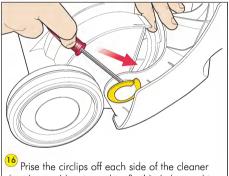


¹⁴ Keeping the outer clutch actuator in the released position, turn the machine back over and repeat action on the underside of the actuator.

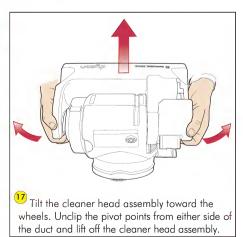


¹⁵ Slide the motor drive belt off the motor spindle. To remove the clutch assembly, grip the side wall using a pair of long-nosed pliers. Pull forcefully whilst pushing the other end through the cleaner head assembly.

All models

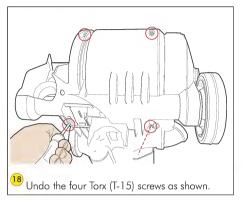


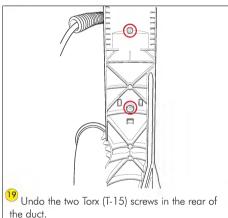
head assembly using a thin, flat bladed screwdriver.



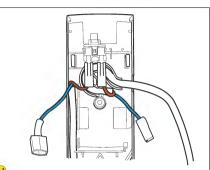




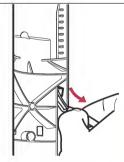




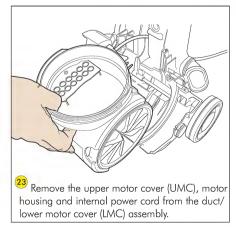
20 Release the two switch cover catches using a Torx screwdriver. Remove the switch cover and switch button.



²⁾ Detach the live (brown) wires from the switch. Disconnect the neutral (blue) wires. Remove the switch and power cord from the duct assembly.

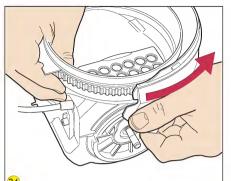


²² Pull the internal power cord through the rear of the duct. Release along the entire length of the duct.

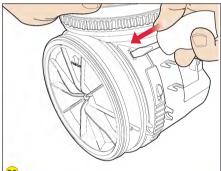




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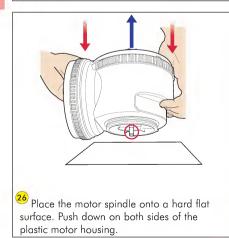


Peel the UMC away from the front of the motor housing.



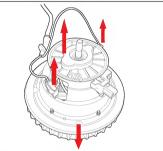
fitting notes

²⁵ Unclip the four retainers on the motor retainer using a large, flat bladed screwdriver and remove.

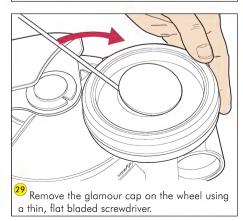


²⁷ Once the motor is released, pull firmly on

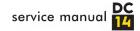
the fancase seal. Caution- do not place fingers in the end of the impeller. Fully remove the motor and the internal power cord from the housing.

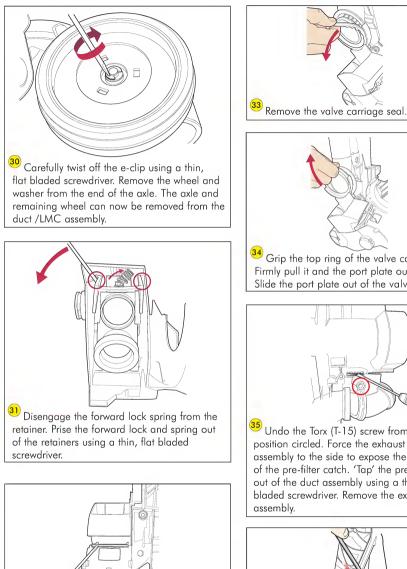


28 Remove the internal wires, motor mount and fancase seal from the motor. Remove the belt guard if fitted (cluchless models only).





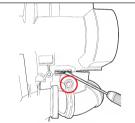




Carefully lever the front edge of the port plate away from the duct using a thin, flat

bladed screwdriver.

Grip the top ring of the valve carriage. Firmly pull it and the port plate out of the duct. Slide the port plate out of the valve carriage.

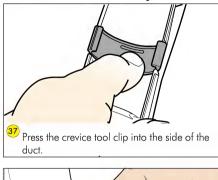


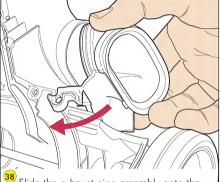
Undo the Torx (T-15) screw from the position circled. Force the exhaust pipe assembly to the side to expose the underside of the pre-filter catch. 'Tap' the pre-filter catch out of the duct assembly using a thin, flat bladed screwdriver. Remove the exhaust pipe assembly.



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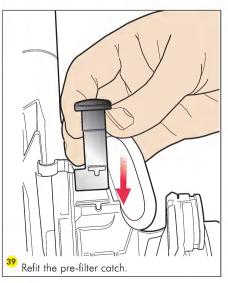
3.3 Assemble main body

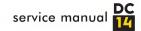


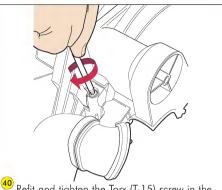


³⁸ Slide the exhaust pipe assembly onto the side of the duct.

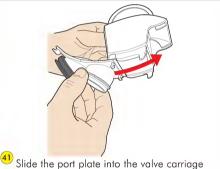
fitting notes



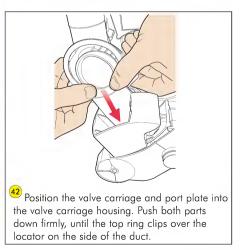




⁴⁰ Refit and tighten the Torx (T-15) screw in the rear of the duct.

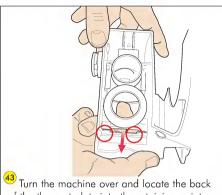


 Slide the port plate into the valve carriage in the direction and orientation shown.

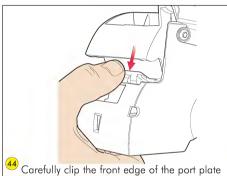




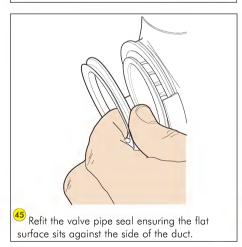


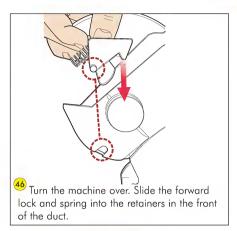


of the the port plate into the retaining points on the duct.



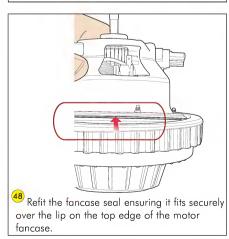
Carefully clip the front edge of the port plate into the duct.





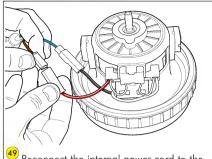


⁴⁷ Slide the axle into the duct. Refit the washers, wheels, circlips and glamour caps.

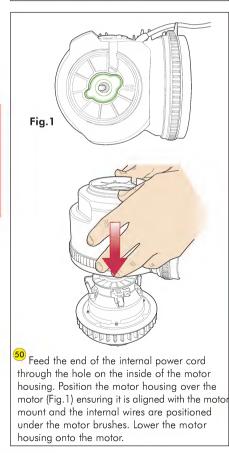


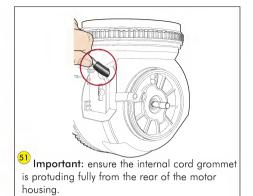


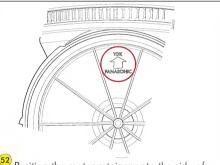




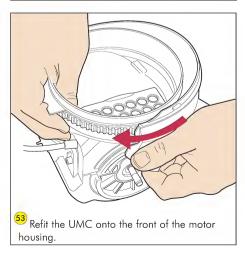
⁴⁹ Reconnect the internal power cord to the motor (live to live, neutral to neutral). Refit the motor bearing mount. Refit the belt guard (clutchless model only).



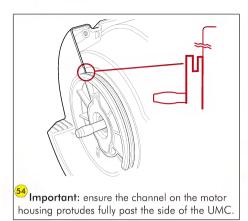


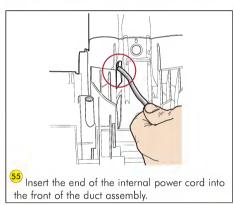


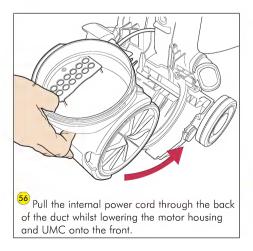
⁵² Position the motor retainer onto the side of the motor housing (arrow pointing to the top). Firmly press into place.

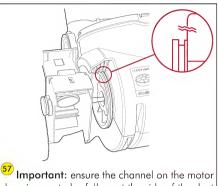


fitting notes

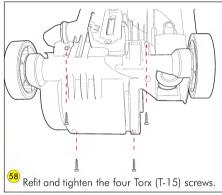


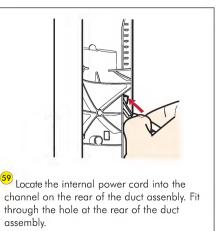






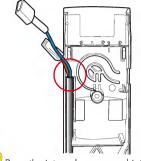
 Important: ensure the channel on the motor housing protudes fully past the side of the duct assembly.



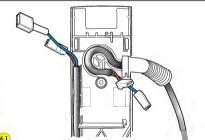






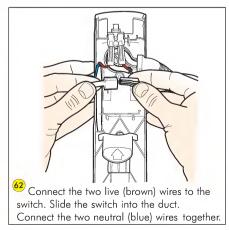


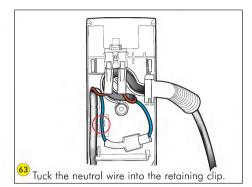
⁶⁰ Press the internal power cord into the retainers in the front of the duct. **Note:** the end of the outer insulation should finish flush to the inner wall.



fitting notes

⁶¹ Fit the main power cord into the duct, ensuring the end of the outer insulation extends past the screw boss. Slide the cord protector into the side of the duct.





64 Locate the switch button onto the switch cover.

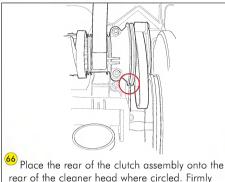
Locate the switch button onto the switch cover. Align the base of the switch cover with the locators on the duct. Clip the switch cover and switch button onto the front of the duct. Refit and tighten the two Torx (T-15) screws in the rear of the duct.



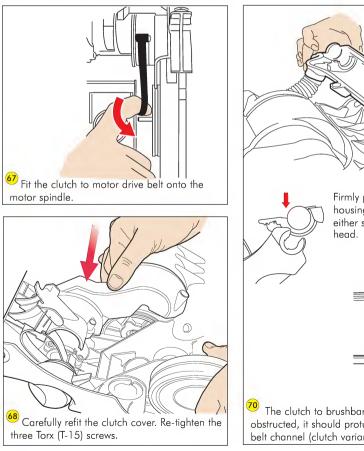


service manual

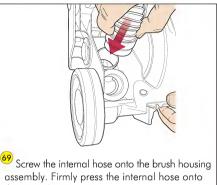
Clutch variants only



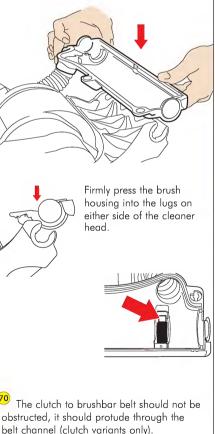
press into position. Refit the clutch acuator.



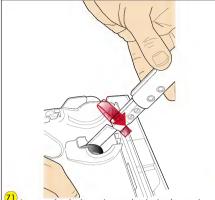
All models



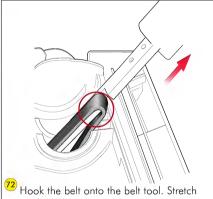
the port plate.



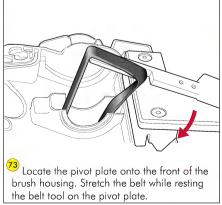
service manual Fitting the belt (clutch variants)

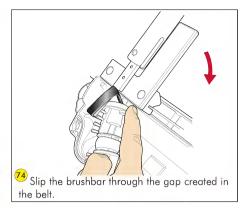


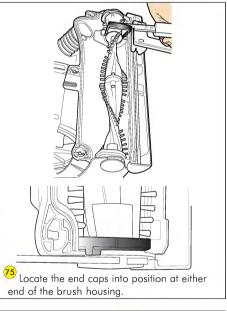
Locate the belt tool into the belt channel.



open the belt.







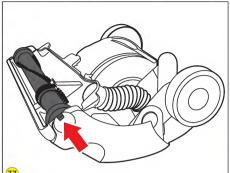


fitting notes

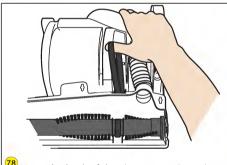
dyson

service manual 14

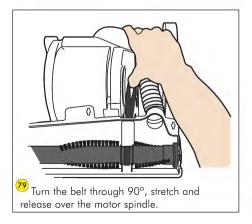
Fitting the belt (clutchless variants only)

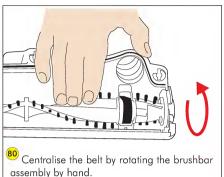


Loop the belt around the brushbar assembly and feed through the belt channel in the brush housing assembly. Locate the brushbar assembly into the brush housing assembly. Ensure the end caps are located correctly into the brush housing.

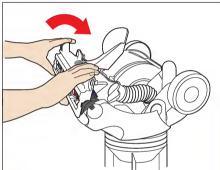


⁷⁸ Using the back of the cleaner as a lever, loop the belt around your thumb.

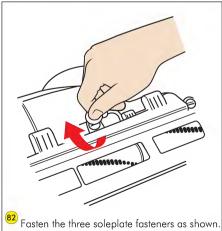




All models

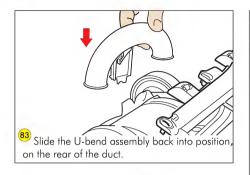


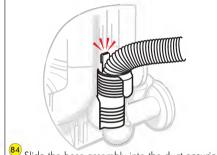
⁸¹ Align the soleplate assembly with the brush housing assembly and lower into position.











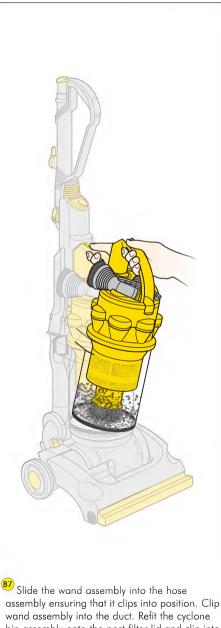
⁸⁴ Slide the hose assembly into the duct ensuring that it 'clicks` into location.



⁸⁵ Refit the motor inlet cover onto the side of the duct. Refit the post filter into the top of the motor housing.



⁸⁶ Refit the post filter lid ensuring that the locator fits underneath the retainer on the rear, and the release catches clip into each of the three retainers. Refit the valve pipe assembly onto the side of the duct.



fitting notes



4.1 Fault diagnosis Symptom: Loss of suction/pick up

Possible cause	Image No.	Action
Blocked pre-filter	1	Inspect pre-filter for blockages. If the filter is blocked with large debris, check Fine Dust Collector (FDC) seal.
	2	Check pre-filter seal is fitted correctly. Check bleed valve assembly for blockages. Remove bin assembly and check bin base seal and bin seal are fitted correctly
Displaced/missing seals		Check exhaust and entry seals are fitted correctly
	3	Check motor inlet cover and exhaust pre-filter seal are fitted correctly
	4	Check valve pipe and duct for blockages. Check valve carriage seal is fitted correctly
	5	Check U-bend, hose and wand handle for blockages. Check port plate seal is fitted correctly
Airway blockage		Check internal hose and brush housing for blockages
Displaced/missing seals	6	Check filter seal and motor retaining ring are fitted corrrectly
	7	Check if customer is using clutch assembly in the 'On' position (clutch variants only)
Brushbar not rotating		Check clutch and belt
Motor failure		Check motor



diagnostic



4.1 Fault diagnosis Symptom: No power



Possible cause	lmage No.	Action
Socket wiring fault		Check customer's plug socket (refer to technical section)
Faulty fuse	-1-	Check fuse for correct rating (13amp). Test resistance, (1 Ω max.)
Open circuit across mains power cord		Visual check of mains cord and plug. Test resistance, (1Ω max.)
Switch failure	2	Check connections on switch. Test actuation and resistance, (1Ω max.)
Open circuit across internal power cord		Visual check of internal cord. Test resistance, (1Ω max.)
Poor connection to motor	3	Check connections to motor. Test resistance, (1 Ω max.)
Open circuit across motor	4	Check motor (terminal clips, soldered connections, brushes, windings, thermal cut-out. Test resistance, (7 Ω approx.)







3









4.1 Fault diagnosis Symptom: Continual Ratchet Noise

Possible cause	lmage No.	Action
	1	Check for any debris build-up around brushbar
Debris build-up	2	Check for debris build-up in brushbar endcaps
Clutch failure	3	Change clutch
Jammed brushbar		Check fit of brushbar (end-caps seated correctly, belt trapped under soleplate)
Jammed brushbar		Check for bearing failure-does brushbar turn?

Symptom: Noisy

Possible cause	lmage No.	Action
Air leakage		Check all seals and airways-see Loss of suction/pick up section
Brushbar noise	-0-	Check brushbar; warped, wrapped in threads
Continual ratcheting		See section above
Motor failure	4	Check motor; loose impeller/nut/case, foreign objects in impeller, motor failure etc
Large object in bin		Empty bin



4















4.1 Fault diagnosis

Symptom: Burning smell

Possible cause	lmage No.	Action
Broken/worn belt	-1-	Check belt (worn, snapped, trapped under soleplate, faulty clutch)
Worn brushbar	2	Check brushbar for obstructions, wear, seized end-caps, incorrect fit
Motor failure	3	Check post filter for carbon build up. Check motor (commutator, windings, brushes, carbon build-up)

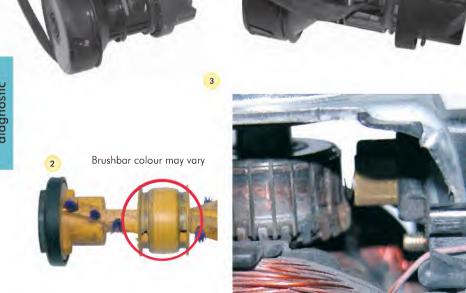
Symptom: Thermal cut-out activating

Possible cause	lmage No.	Action
Restricted airflow		Check for blockages-see Loss of suction/pick up section
Motor failure	3	Check motor (commutator, windings, carbon build-up, excess heat)

1



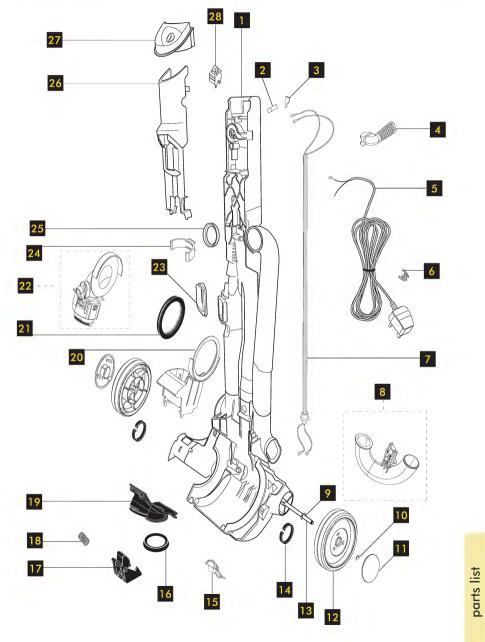
diagnostic





service manual

5.1 Exploded view







5.2 Parts description

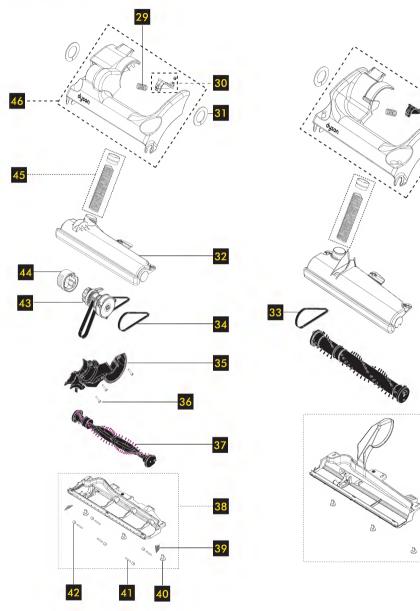
ltem	
No	Description
1	DUCT/LOWER MOTOR COVER
2	SPADE CONNECTOR BOOT
3	TERMINAL BOOT
4	CABLE PROTECTOR
5	POWER CORD ASSEMBLY
6	CABLE CLIP
7	INTERNAL POWER CORD
8	U BEND ASSEMBLY
9	WHEEL WASHER
10	WHEEL E-CLIP
	GLAMOUR CAP
	REAR WHEEL
13	WHEEL AXLE
14	BLACK BEARING CLIP
15	PRE-FILTER CATCH
16	PORT PLATE SEAL
17	FORWARD LOCK
18	FORWARD LOCK SPRING
19	PORT PLATE
20	VALVE CARRIAGE
21	VALVE CARRIAGE SEAL
22	VALVE PIPE ASSEMBLY
23	ENTRY SEAL
24	CREVICE TOOL CLIP
25	EXHAUST SEAL
26	SWITCH COVER
27	SWITCH BUTTON
28	SWITCH

parts list



service manual 14

5.1 Exploded view



parts list





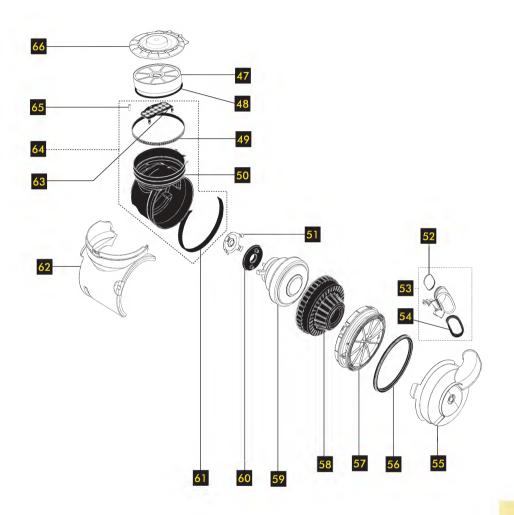
ltem	
No	Description
29	UPRIGHT LOCK SPRING
30	UPRIGHT LOCK ASSEMBLY
31	CLEANER HEAD PIVOT CIRCLIPS
32	BRUSH HOUSING ASSEMBLY
33	BELT
34	CLUTCH TO MOTOR BELT
35	CLUTCH COVER ASSEMBLY
36	TORX SCREW
37	BRUSHBAR ASSEMBLY
38	SOLEPLATE ASSEMBLY
39	SOLEPLATE BRISTLES
40	SOLEPLATE FASTENERS
41	SOLEPLATE AXLE
42	SOLEPLATE WHEEL
43	CLUTCH ASSEMBLY
44	OUTER CLUTCH ACTUATOR
45	INTERNAL HOSE ASSEMBLY
46	CLEANER HEAD ASSEMBLY





service manual 14

5.1 Exploded view







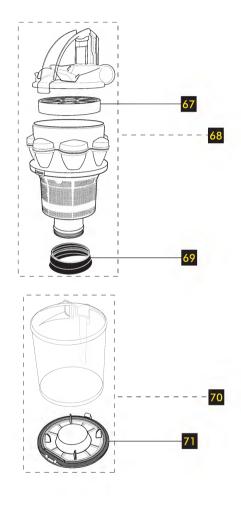
5.2 Parts description

ltem No	Description
47	POST FILTER
48	HEPA FILTER SEAL
49	TOP HOUSING MOUNT
50	MOTOR HOUSING
51	BELT GUARD
52	EXHAUST PIPE SEAL
53	EXHAUST PIPE ASSEMBLY
54	EXHAUST PRE-FILTER SEAL
55	MOTOR INLET COVER
56	FILTER SEAL
57	MOTOR RETAINER
58	FANCASE SEAL
59	MOTOR
60	MOTOR BEARING MOUNT
61	MOTOR HOUSING MOUNT
62	UPPER MOTOR COVER
63	DIFFUSER
64	MOTOR HOUSING ASSEMBLY
65	DIFFUSER SCREW
66	POST FILTER LID





5.1 Exploded view



parts list

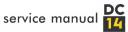


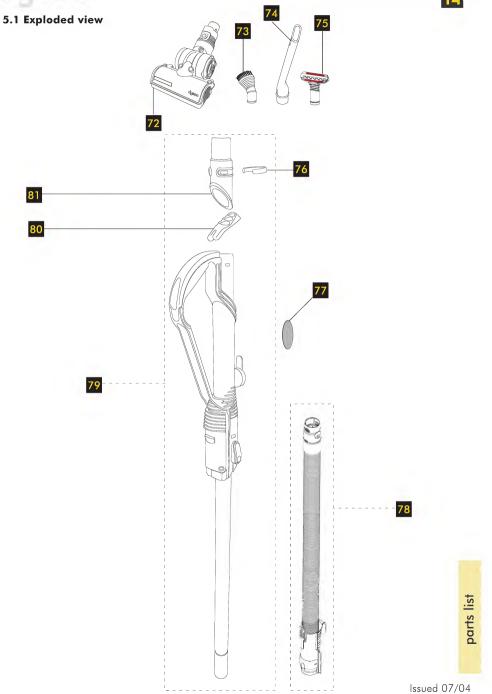


5.2 Parts description

ltem No	Description
67	PRE-FILTER ASSEMBLY
68	CYCLONE ASSEMBLY
69	FINE DUST COLLECTOR SEAL (FDC SEAL)
70	BIN ASSEMBLY
71	BIN BASE ASSEMBLY











5.2 Parts description

ltem No	Description
72	MINI TURBINE HEAD
73	LARGE BRUSH TOOL
74	CREVICE TOOL
75	STAIR TOOL ASSEMBLY
76	TUBE GRIP CLIP
77	HELPLINE STICKER
78	HOSE ASSEMBLY
79	WAND ASSEMBLY
80	WAND CAP
81	TUBE GRIP