



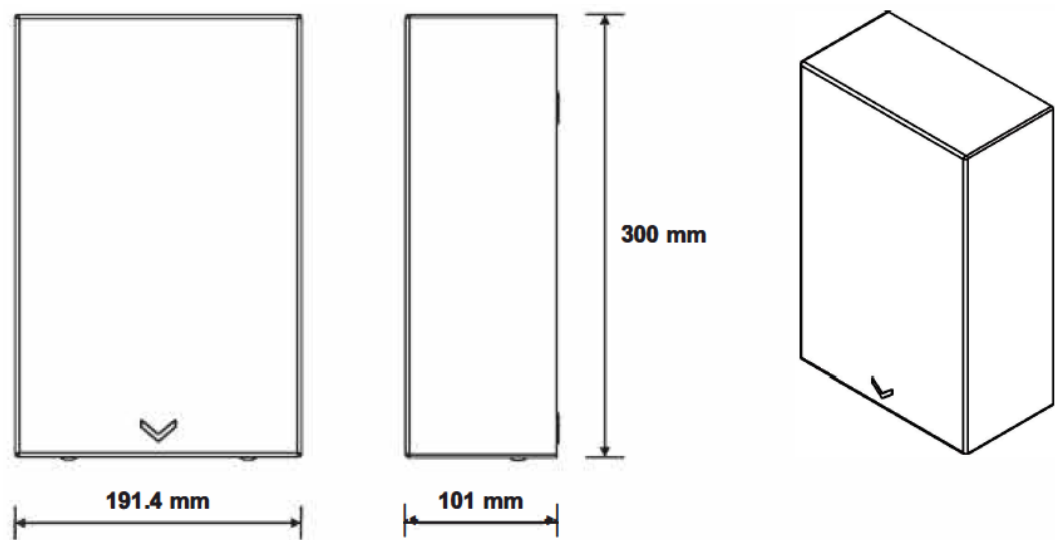
BC2009

DOLPHIN VELOCITY HIGH SPEED HAND DRYER WITH HEPA FILTER

OPERATING INSTRUCTIONS AND PARTS MANUAL

TECHNICAL SPECIFICATIONS

Surface Mount



ITEM CATEGORY

Operating Voltage
Output Warm Air Temp
Warm Air Speed Output
Motor Type
Motor Thermal Protection
Heater Element On
Heater Thermal Protection

Drying Time
Stand-by Power
Circuit Operation
Sensor Range
Timing Protection
Sound Level
Drip proof
Isolation
Net Weight
Shipping Weight
Unit Size

PERFORMANCE DATA

220-240 Vac, 50i60 Hz, 0.84-1.0 kW
55 •c [131 °F] at ambient T = 25 •c [77 °F], MAX, Adjustable by Owner
Standard [89±2 mis], Adjustable, The range is [63-89 mis]
325-500 W, 22000-29000 r.p.m., Adjustable; Brush Type, Dual Ball Bearings
Auto Resetting Thermostat turns unit off at 95 °C [203 °F]
Standard [500±50 W]. Range [325-500 W] controlled by air speed adjustment
Auto Resetting Thermostat turns unit off at 95 °C [203 °F]
Thermal fuse cuts unit off at 142 •c [288 °F]
Less than 15 seconds
Less than 0.5 W
Infrared Automatic, self adjusting
Standard [170±20 mm], Adjustable, The range is [100-230 mm]
60 seconds auto shut off
MIN 69 dB to 76.6 dB MAX@ 1 m
IP24'
CLASS I
4.0 kg
4.5 kg
191.4 mm (W) x 300 mm (H) x 101 mm (D)

COVER TYPE/ COVER FINISH

BC2009 - Stainless steel (#304), Satin finish (t:1.2 mm)

GENERAL SAFETY INFORMATION



WARNING

This product is intended for installation by a qualified service person. Use 1.2 mm² solid conductor for wiring.



DANGER

Failure to properly ground unit could result in severe electrical shock and/or death.



WARNING

Disconnect power at the service breaker before installing or servicing. Full pole disconnection device must be incorporated in the fixed wiring in accordance with the wiring rules.



WARNING

All units must be supplied with a 3-wire service. The ground wire must be connected to the dryer's backplate.

NOTE:

We do not recommend installing this dryer above a basin. If you are installing this dryer above a basin, please make sure that reflection won't occur.

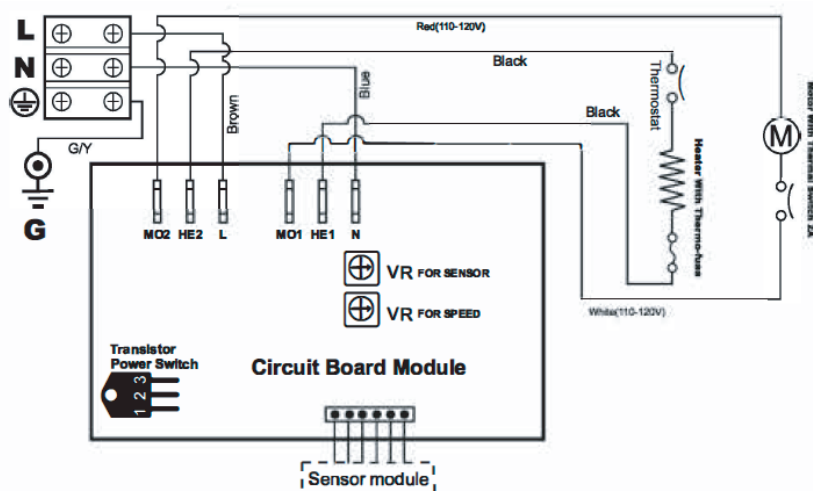
[Type Y attachment]

If the power supply cord is damaged, it must be replaced by the manufacturer or its service agent or a qualified person in order to avoid a hazard. Disconnect the fixed wiring only in accordance with the wiring rules.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

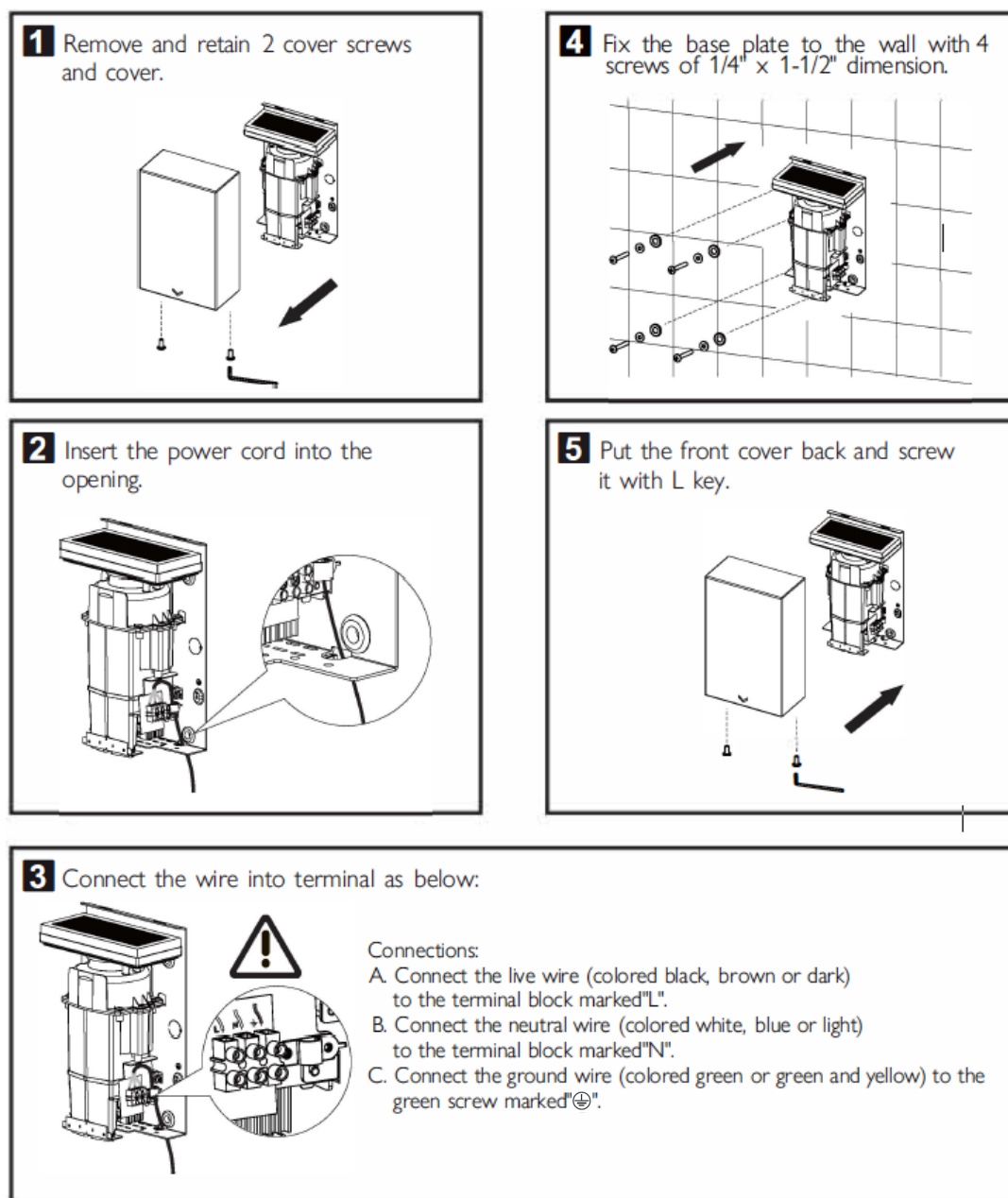
CIRCUIT DIAGRAM



INSTALLATION

1. Make sure power supply breaker is switched off. Installation must be carried out in accordance with the current edition of the local wiring regulations code having jurisdiction. Installation should be performed only by a qualified electrician.
2. Place template against wall at desired height (see mounting height recommendations) and mark locations of 4 mounting holes and wire service entry at knockout (KO) location.

NOTE: For two or more dryers, dryers should be no closer than 24 inches (610 mm) on center.



RECOMMENDED MOUNTING HEIGHTS

From bottom edge of dryer above finished floor (AFF)

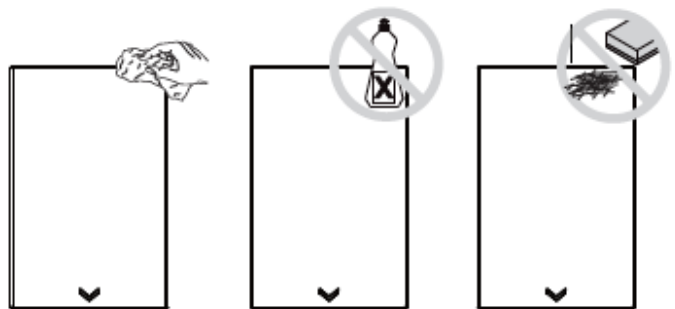
Men	1270 mm
Women	1194 mm
Children 4-7 years	889 mm
Children 8-10 years	991 mm
Children 11-13 years	1092 mm
Children 14-16 years	1194 mm
Wheelchair	1016 mm

'Unit should be mounted to give no less than 300 mm clearance from the bottom of the unit to the nearest surface below'

CLEANING AND MAINTENANCE (Every six months is recommended)

Periodic cleaning of the unit is recommended to ensure optimum performance.

- › Disconnect the electrical supply.
- › Remove the two cover-mounting screws.
- › Remove the cover.
- › Clean all dust lint from the interior of the dryer.
- › Wipe the cover with a damp cloth and mild cleaning solution. Do not Soak. Never use abrasives to clean the cover.
- › Replace the cover. Do not over tighten the screws.



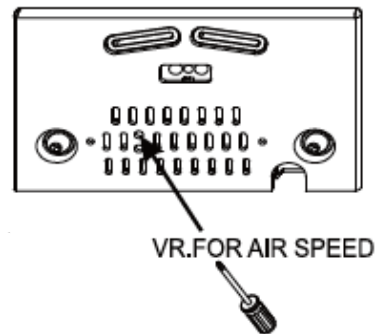
OPERATION

- › **N**o-touch operation.
- › **S**hake excess water from hands.
- › **P**lace hands under the outlet to start operation.
- › **R**ub hands lightly and rapidly.
- › **S**tops automatically after hands are removed.

SETTING ADJUSTMENT

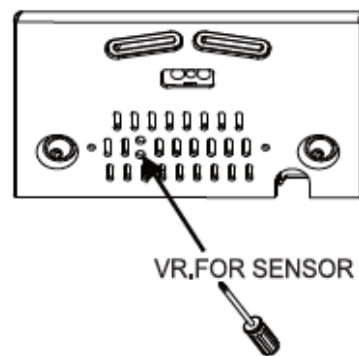
A. Warm air speed adjustment

1. Use phillips screw to adjust air speed.
2. Clockwise: Increases the air speed (+) 
3. Counterclockwise: Decreases the air speed (-) 



B. Sensor range adjustment

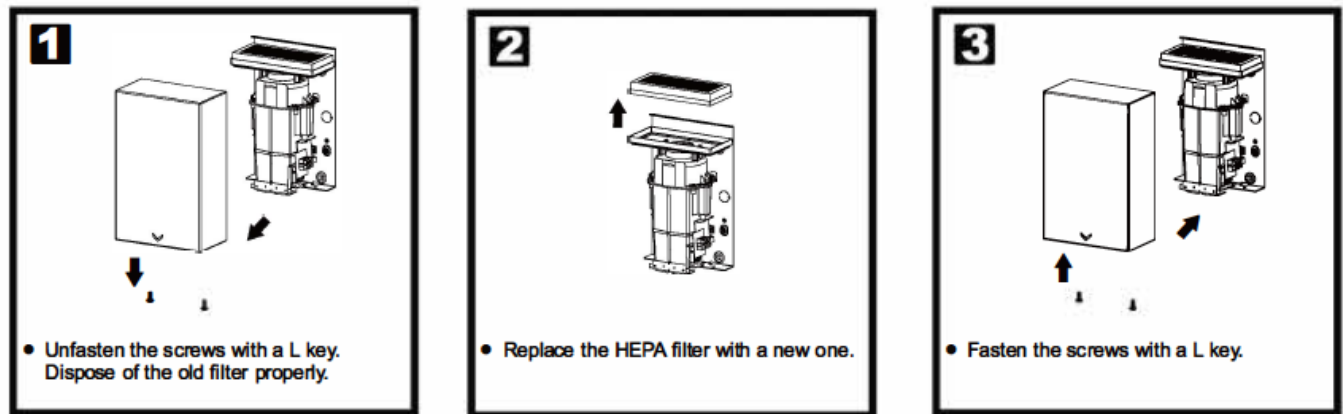
1. The recommended unit sensor range is 170 mm.
This can be adjusted from 100 mm to 230 mm.
2. Clockwise: Increases the sensing range(+)
3. Counterclockwise: Decreases the sensing range(-)
4. **DO NOT OVERTURN!**



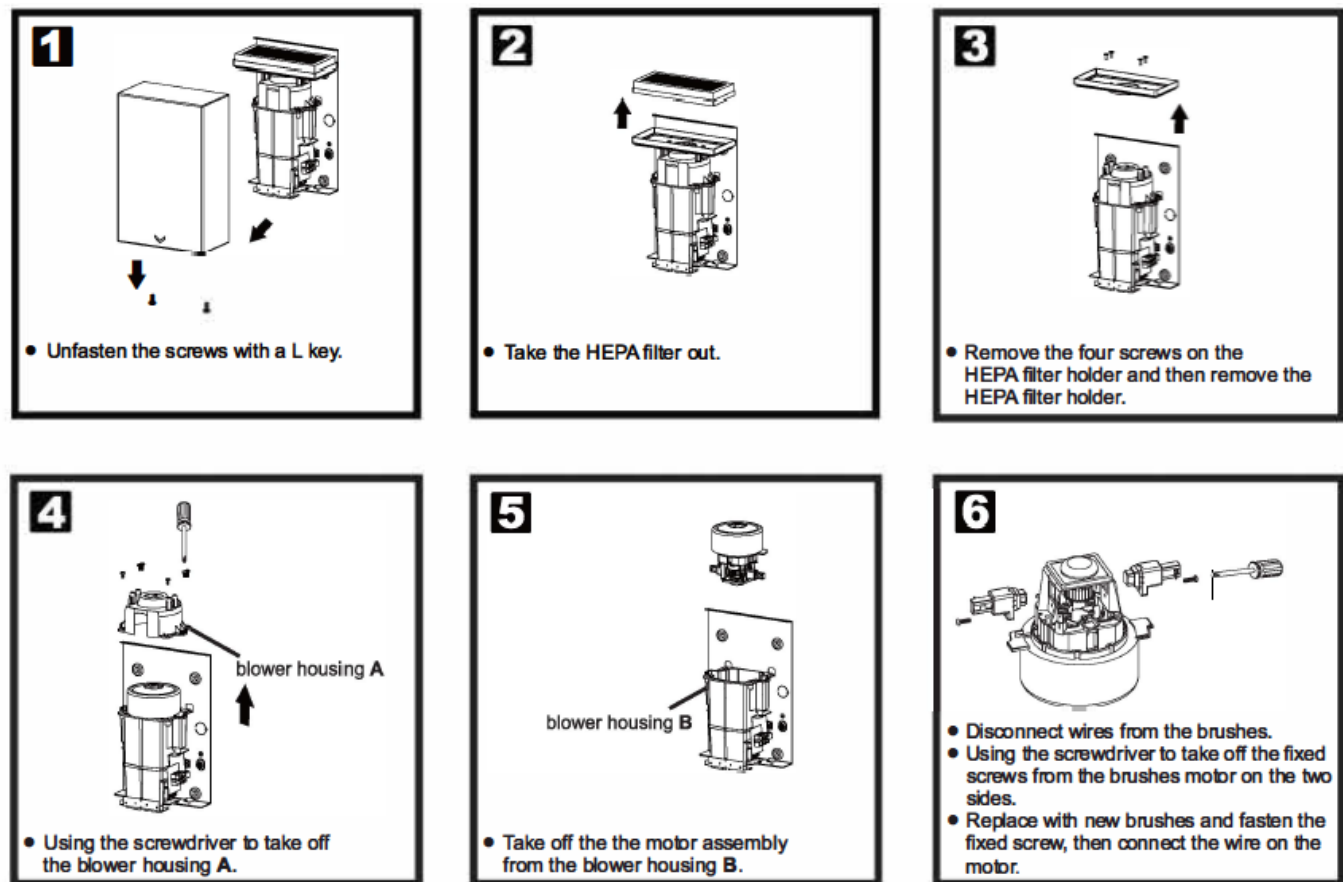
FILTER AND BRUSHES REPLACEMENT

CHANGE FILTER ASSEMBLY

It is recommended to change the filter every six months.



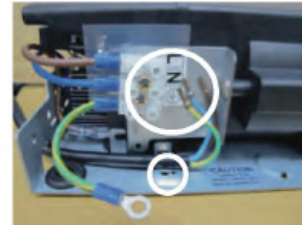
BRUSHES REPLACEMENT



THIS UNIT MUST BE FITTED AND SERVICED BY SUITABLY QUALIFIED PERSONNEL

CHANGING ANY COMPONENT

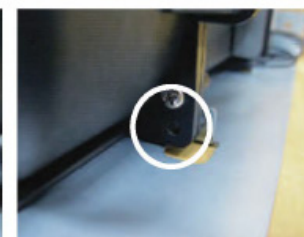
To change any component, always disconnect the power and separate the internal mechanism and the base plate



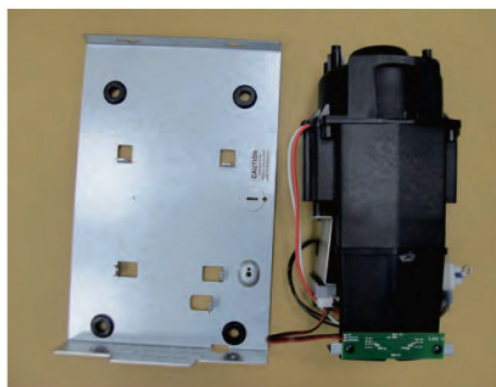
1. After removing the cover, take the HEPA filter out, remove the four screws on the HEPA filter holder and then remove the HEPA filter holder.
2. Remove the screw by the air outlet on both sides. (See right)



3. Remove the screw by the air outlet on both sides. (See right)

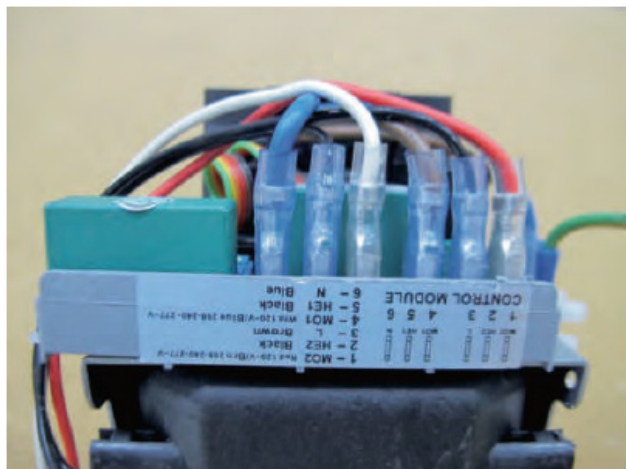


4. Remove the two screws on the motor housing. (See right)

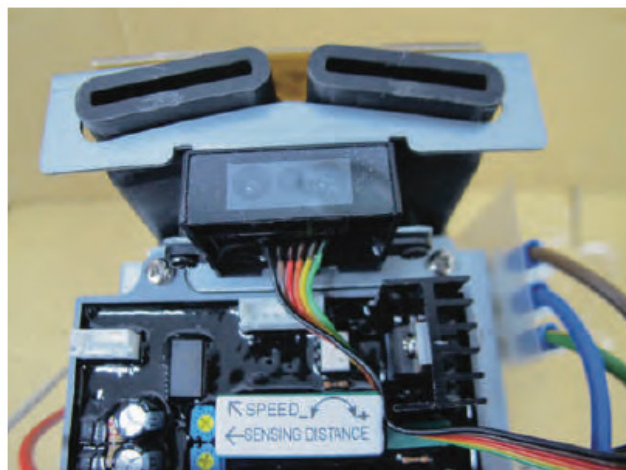


5. Separate the baseplate and the internal mechanism.

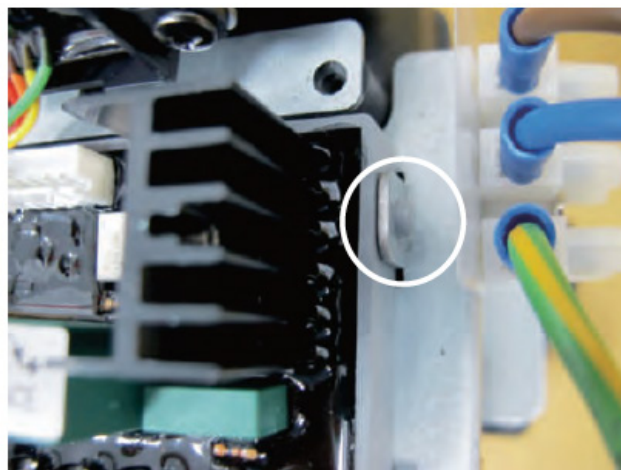
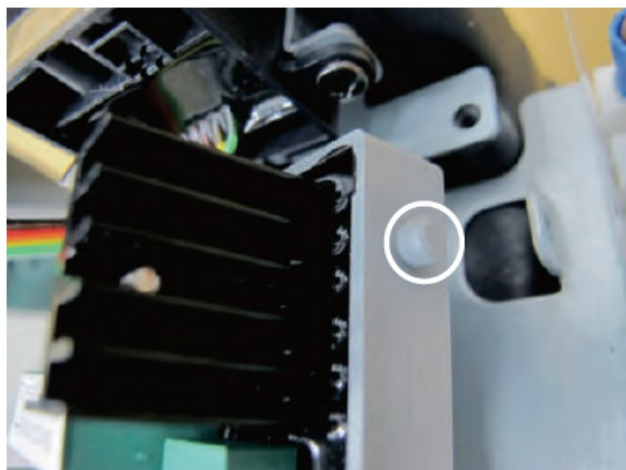
TIMER REPLACEMENT



1. Disconnect all of the wires on the PCB. (See right)

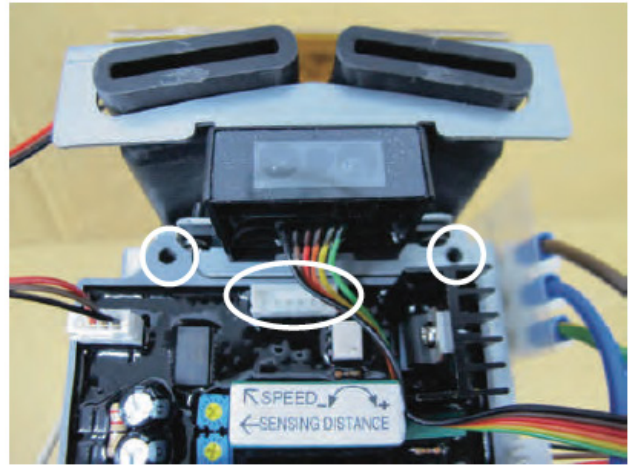
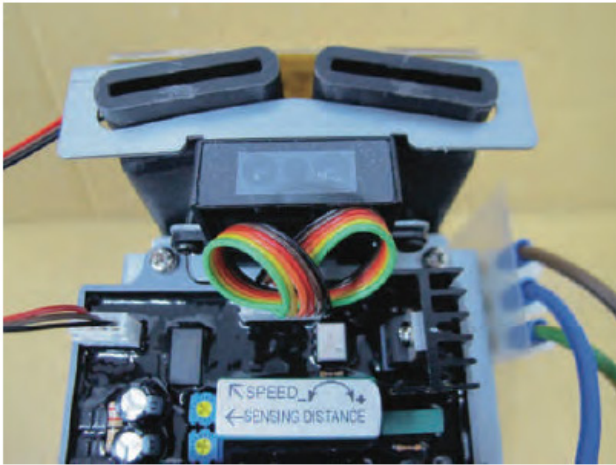


2. To change the PCB, remove the screws from the sensor bracket and the sensor.
Dislodge the PCB from the PCB bracket by pushing to the left. (see right)

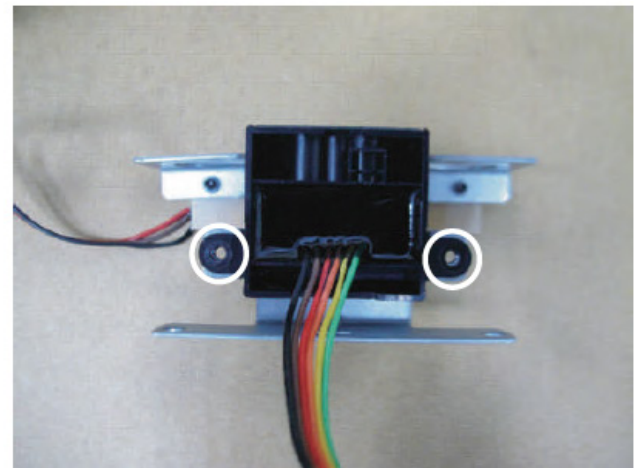
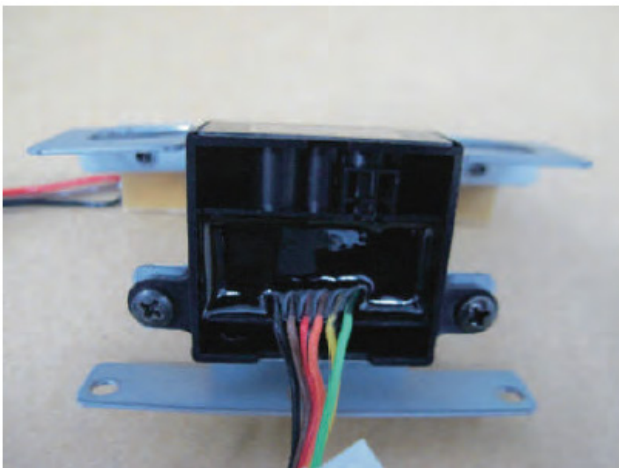


3. Install the new PCB. Insert the tenon tongue firmly into the PCB bracket. Reverse Steps 1 and 2 to fasten the PCB.

SENSOR REPLACEMENT

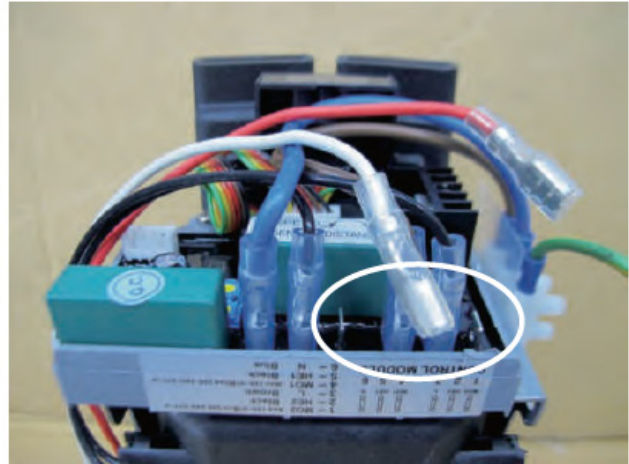
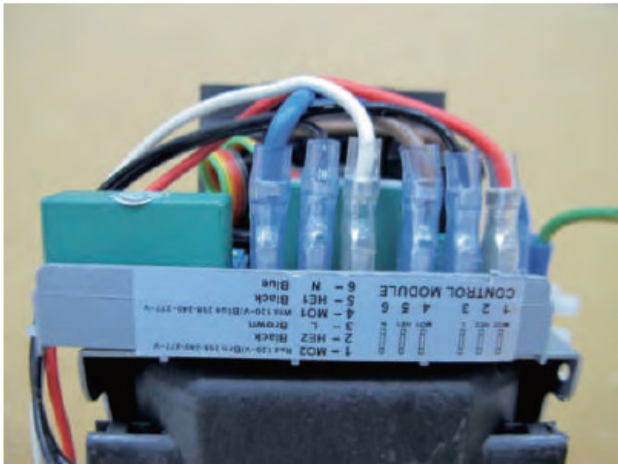


1. To change the sensor, remove the screws from the sensor bracket to take out the sensor. (See right)



2. Remove the black screws on the sensor. Install the new sensor and reverse Step 1 to fasten the sensor.

MOTOR REPLACEMENT



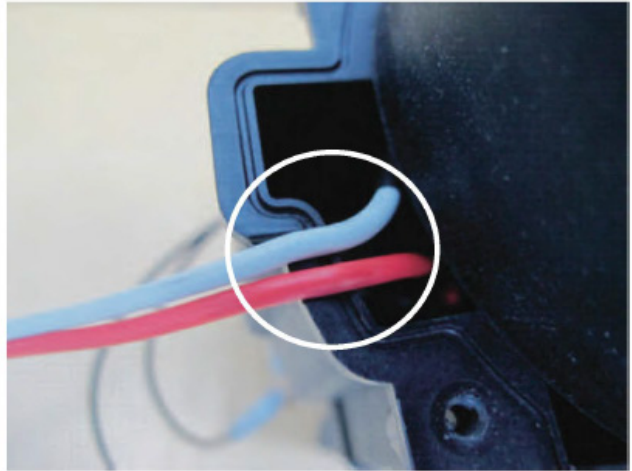
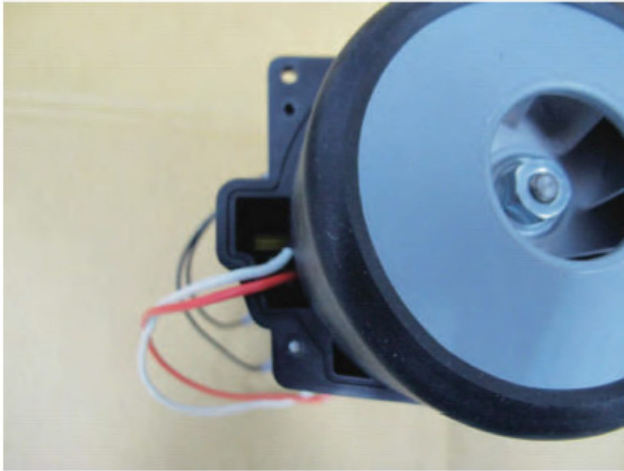
1. To change the motor, disconnect the motor wires from the PCB. (See right)



2. Remove the 4 screws from the motor housing. (See right)

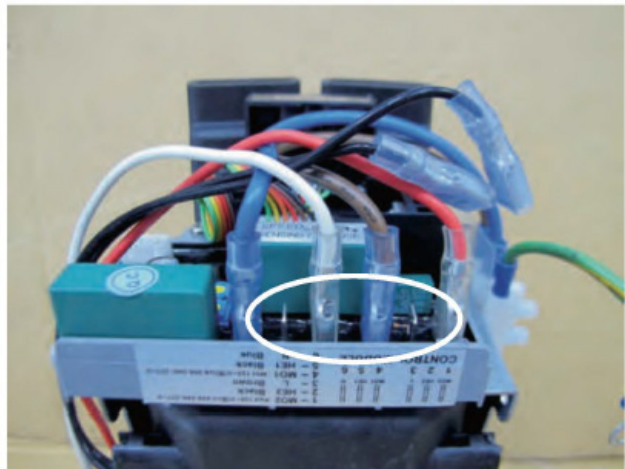
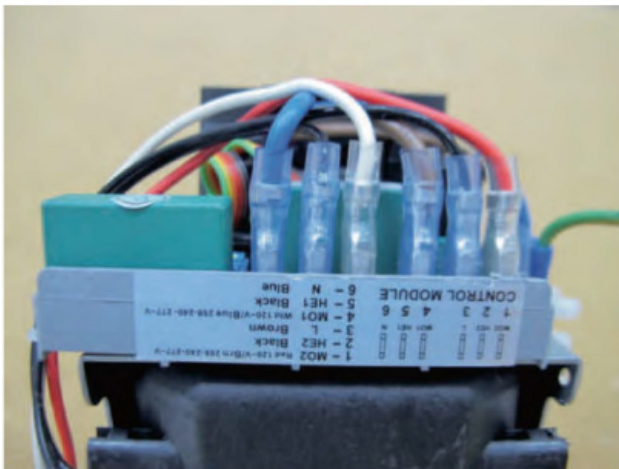


3. Remove the top housing and take out the motor. Remove and retain both motor rubbers on the top and at the bottom. Place the two motor rubbers on the new motor.
Reverse Steps 1 and 2 to place the new motor firmly in the motor housing .



4. Install the new motor. Ensure the wires are in the appropriate grooves and reverse Steps 1 and 3 to fasten the motor.

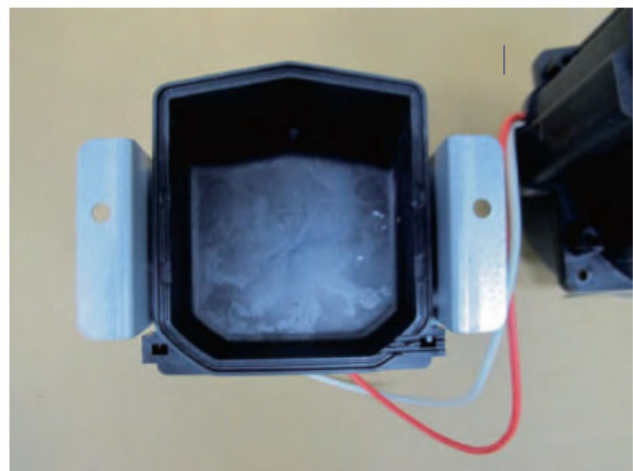
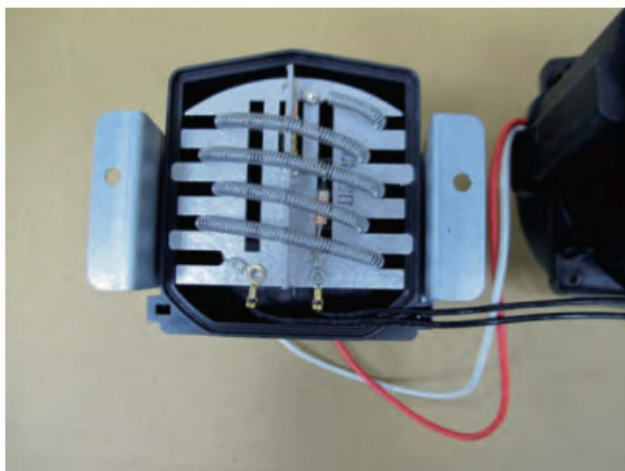
HEATER REPLACEMENT



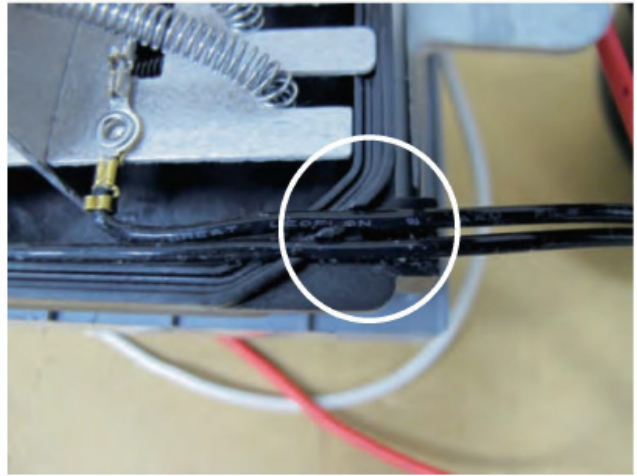
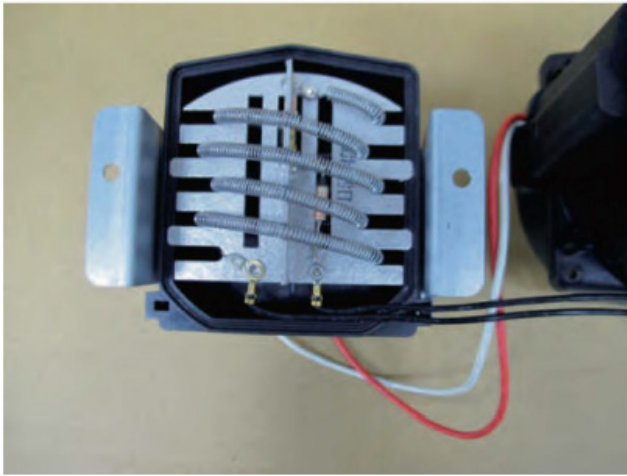
1. To change the heating element, disconnect the wires of the heating element from the PCB. (See right)



2. Remove the two screws on the side of the PCB bracket. (See right)



3. Take out the air outlet and remove the heating element. (See right)



4. Install the new heating element. Ensure the wires are in the appropriate grooves and reverse Steps 1 and 3 to fasten the heating element.

TOOLS REQUIRED



Philips Screwdriver

Slotted Screwdriver

Wire Cutter

Modular Crimping Cuts Tool

TROUBLESHOOTING

SYMPTOM	CORRECTIVE ACTIONS FOR INITIAL INSTALLATION FAILURE
If the dryer will not run	First ensure that the breaker supplying the dryer is operational. If it is, disconnect the power and remove the dryer cover. Taking suitable precautions to avoid shock hazard, reconnect the power and check for Voltage at the terminal block. Verify that connections are made correctly.
The dryer cycles by itself or runs constantly	Ensure that there is no obstruction on or in front of the IR sensor. Clean any dirt or debris off the sensor lens. If problem persists, replace sensor and CBM.
The dryer makes a loud noise and does not run for a complete cycle	Ensure that the supply Voltage is correct. Dryer will make a loud humming noise if the input Voltage is too high. Verify Voltage requirement on unit rating label and correct supply as required. If CBM has been damaged, replace CBM, IR sensor module and VR component and cable.
The dryer runs but air stream is low pressure and/or low velocity	Ensure that the supply Voltage is correct. Dryer will run weakly if the input Voltage is too low. Verify Voltage requirement on unit rating label and correct supply as required.

SYMPTOM	CORRECTIVE ACTIONS FOR IN-SERVICE FAILURES
If the dryer will not run	First ensure that the breaker supplying the dryer is operational. If it is, disconnect the power and remove the dryer cover. Replace the CBM and IR sensor module. Taking suitable precautions to avoid shock hazard, reconnect the power and check for Voltage at the terminal block. Use a multimeter to test the current on the heating element. If there was no current, please change the heating element. If current was detected, change the motor or check the motor brushes and replace them if the remaining graphite is $\leq 25/64"$ [10mm].
The IR sensor only "sees" close range objects	Ensure that there is no obstruction on or in front of the IR sensor. Clean any dirt or debris off the sensor lens. If problem persists, replace sensor and CBM.
The heater gets hot but no air stream is produced	Disconnect the power. Remove the dryer cover and disassemble the blower-motor/fan housing. Replace the fan motor.
The dryer only blows cold air during a full cycle	Disconnect the power. Remove the dryer cover and disassemble the blower-motor/fan housing. Test the thermostat for open circuit. Check the heater element for signs of burning or breakage. Damaged element must be replaced.
The air stream is low pressure and velocity	Check the output nozzle for obstructions. If none are present, disconnect the power. Remove the dryer cover. Remove any dust/lint buildup from intake vent slots. Disassemble the blower-motor/fan housing. Check the motor brushes for worn condition ($\leq 25/64"$ [10 mm] graphite remains) and replace them, if necessary.

WARRANTY

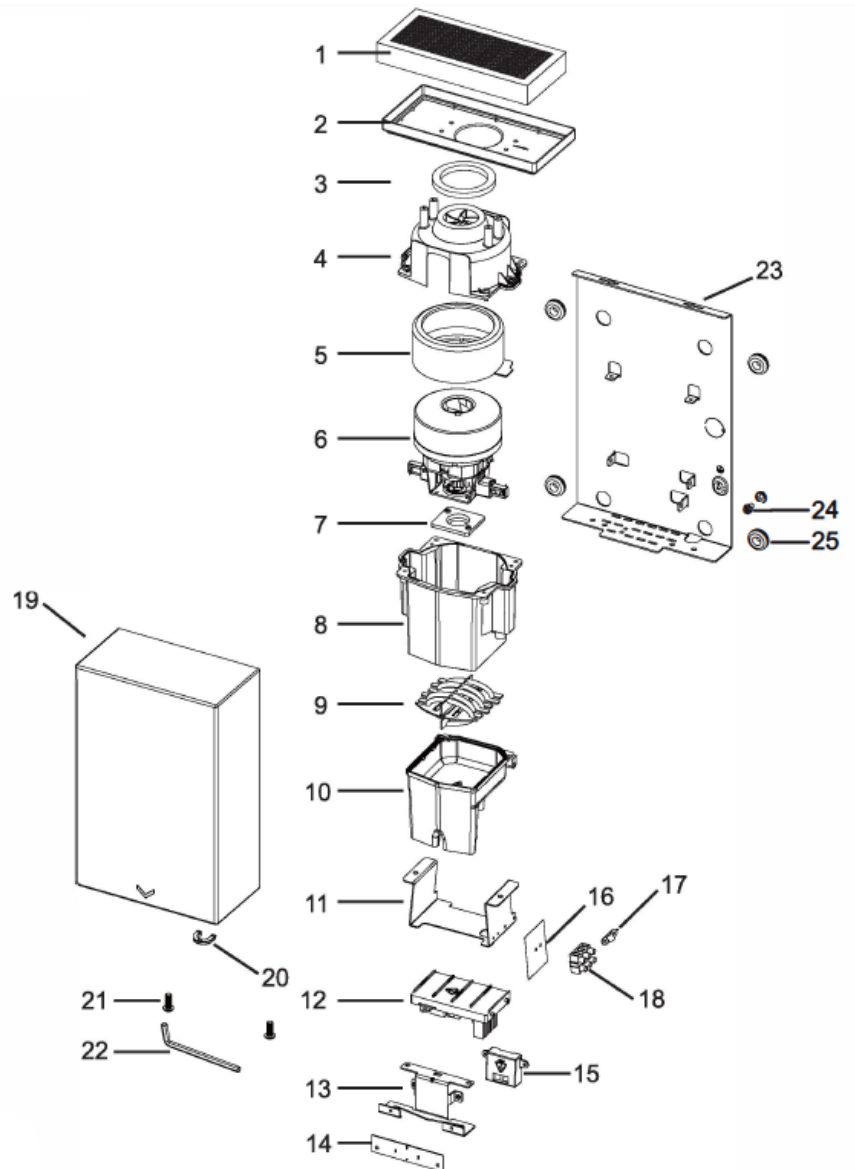
Limited 3 year warranty

Please see our website or contact us on +44 (0) 1424 202224 for more details.

PARTS DIAGRAM

PARTS LIST

Key	Description
1	HEPA Filter
2	HEPA Filter holder
3	HEPA Filter holder - gasket
4	Blower housing - Upper
5	Motor rubber - Large
6	Motor
7	Motor rubber - Small
8	Blower housing - Below
9	Heater assembly
10	Air outlet
11	Air outlet bracket
12	Circuit Board Module
13	Sensor bracket
14	LED assembly
15	Sensor module
16	Insulation Mylar shield with LNG marked
17	Cable clamp
18	Terminal block
19	Cover
20	Cable protector
21	Security hex screw (2 reqd.)
22	L-Wrench
23	Base plate
24	Grounding screw
25	Rubber grommet - Base (4 reqd.)





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