

BC2005

# DOLPHIN HIGH SPEED HAND DRYER

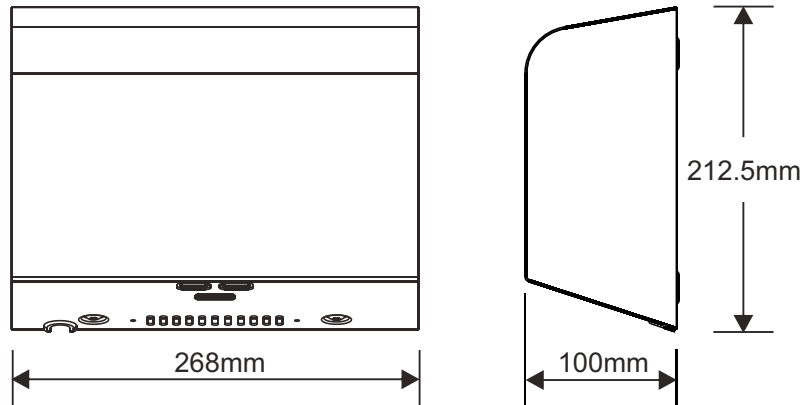
---

USER MANUAL



## Operating Instructions and Parts Manual (Automatic)

### Surface Mount



## TECHNICAL SPECIFICATIONS

ITEM CATEGORY	PERFORMANCE DATA
Operating Voltage	220-240Vac, 50/60Hz, 0.84-1.0kW
Warm Air Speed Output	70-82 m/s, adjustable
Motor Type	250-500W, 29000r.p.m., Adjustable; Brush Type, Dual Ball Bearings
Motor Thermal Protection	Auto Resetting Thermostat turns unit off at 95°C {203°F}
Heater Element	500W, adjustable
Heater Thermal Protection	Auto Resetting Thermostat turns unit off at 85°C {185°F}
Drying Time	Less than 15 seconds
Stand-by Power	Less than 0.5W
Circuit Operation	Infrared Automatic, self adjusting
Sensor Range	Standard [170 ± 20mm], Adjustable, The range is [120 - 220mm]
Timing Protection	60 seconds auto shut off
Drip proof	IP24
Isolation	CLASS 1
Net Weight	3.8kg
Shipping Weight	4.2kg
Unit Size	268mm (W) x 212.5mm(H) x 100mm (D)

### COVER TYPE/ COVER FINISH

**BC2005**- Stainless steel; #4 satin finished. (AISI 304 t:1.2 mm)

## General safety information

### ⚠ WARNING

This product is intended for installation by a qualified service person.  
Use 1.2mm<sup>2</sup> solid conductor for wiring.

### ⚠ WARNING

Disconnect power at the service breaker before installing or servicing. Not for household use may cause burns.

### ⚠ DANGER

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

### ⚠ 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.

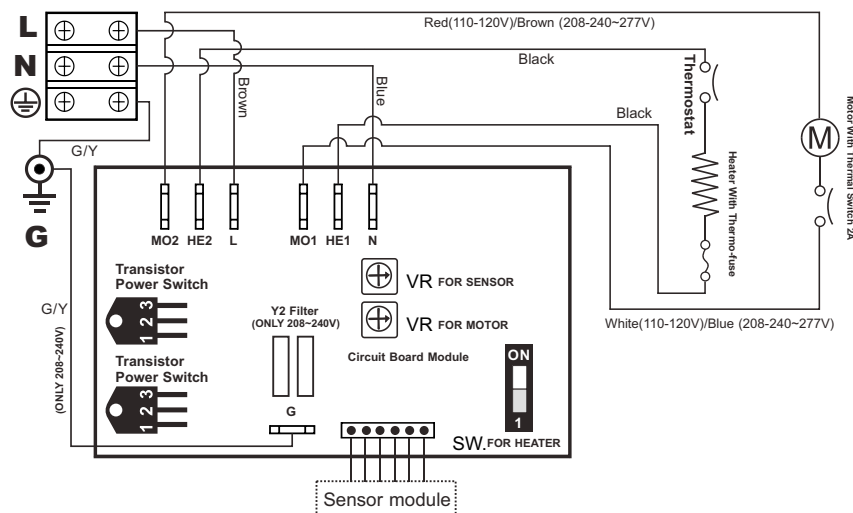
### 【 Type Y attachment 】

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.

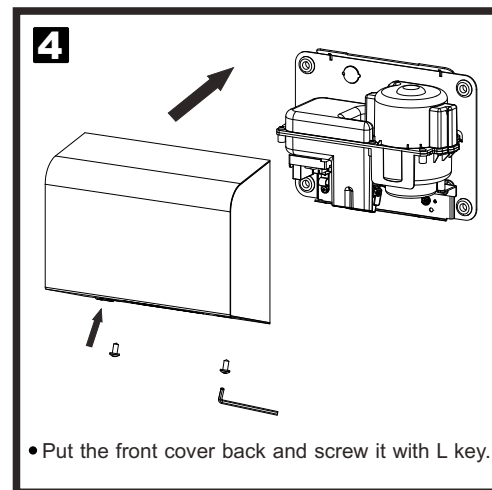
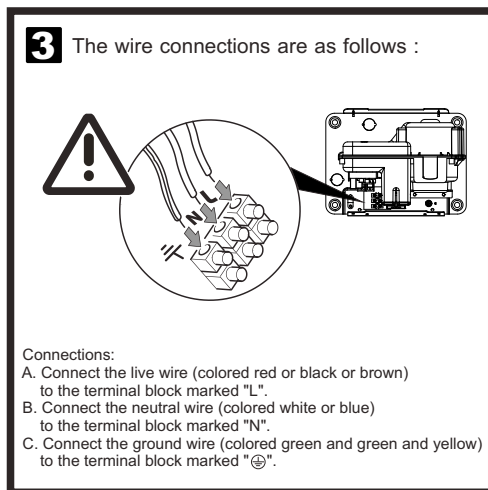
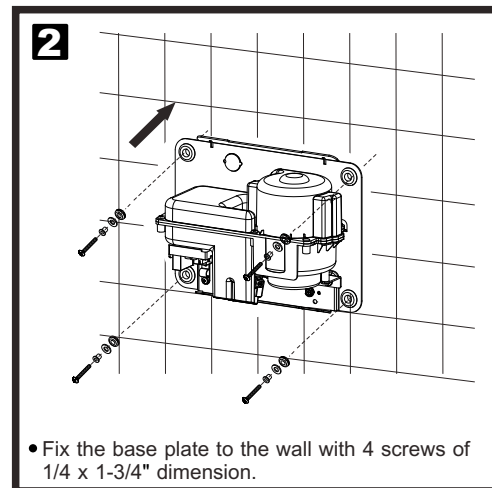
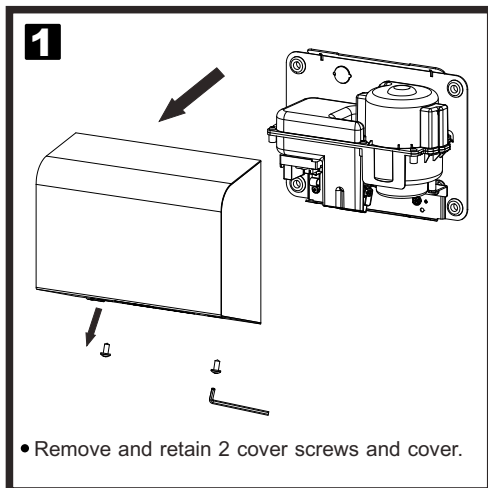
Children should be supervised to ensure that they do not play with the appliance.

## 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 (610mm) on center.



## Recommended mounting heights

- from bottom edge of dryer above finished floor (AFF)

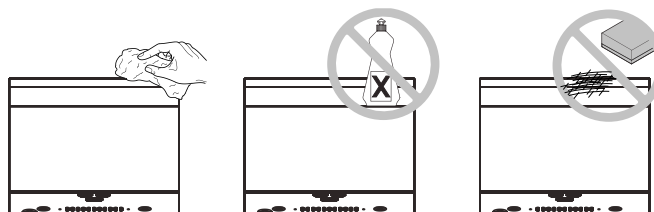
Men	1270 mm
Women	1194 mm
Children 4-7 years	889 mm
Children 8-10 years	991 mm
Children 11-13 years	1092 mm
Children 14-16 years	1194 mm
Handicaped	1016 mm

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

## Cleaning and Maintenance

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.

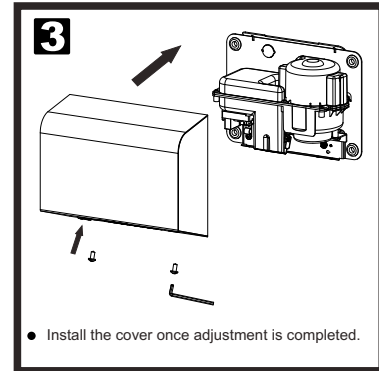
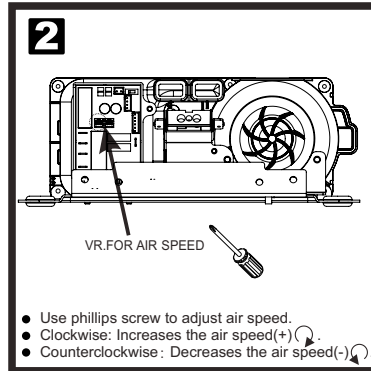
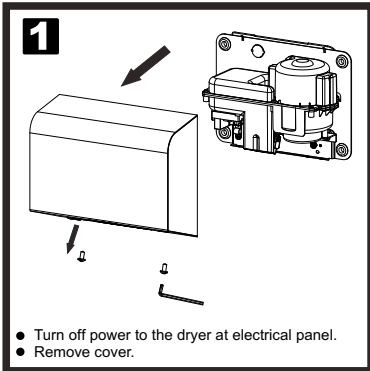


## Operation

- No-touch operation.
- Shake excess water from hands.
- Place hands under the outlet to start operation.
- Rub hands lightly and rapidly.
- Stops automatically after hands are removed.

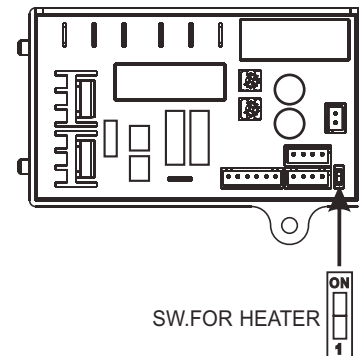
## Setting Adjustment

### A. Warm air speed adjustment



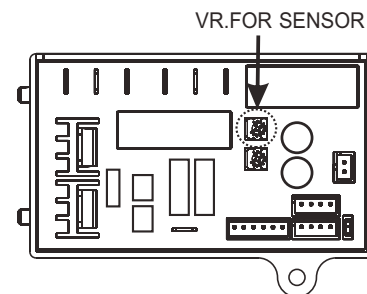
### B. Heater Element Switch ON/OFF

1. Switch off the power, loosen the cover screws and remove the cover.
2. Adjust the heater switch on the PCB with a small plastic or wood flat blade probe.
  - 2-1. Heater ON: Slide the switch to "ON".
  - 2-2. Heater OFF: Slide the switch to "1".



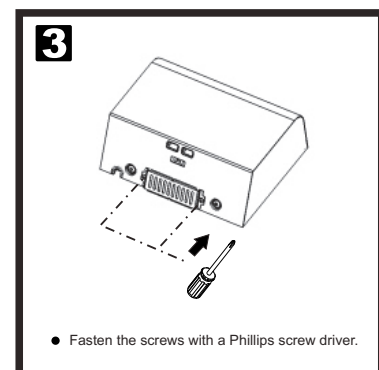
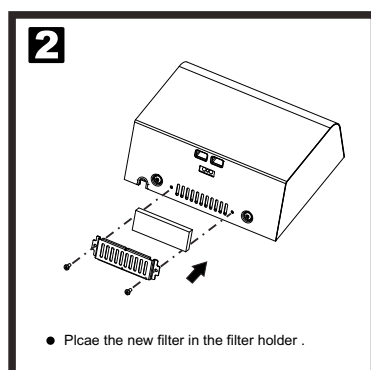
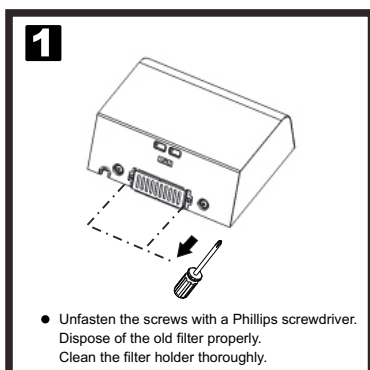
### C. Sensor range adjustment

1. The recommended unit sensor range is 150mm. This can be adjusted from 120mm to 220mm.
2. Clockwise: Increases the sensing range(+)
3. Counterclockwise: Decreases the sensing range(-)
4. **DO NOT OVERTURN!**

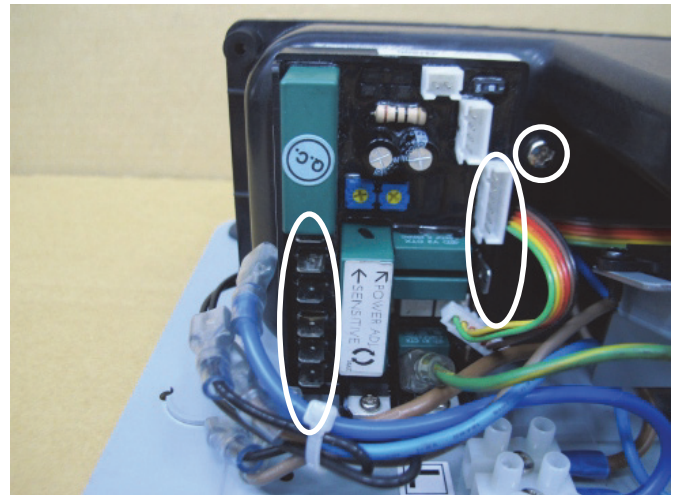
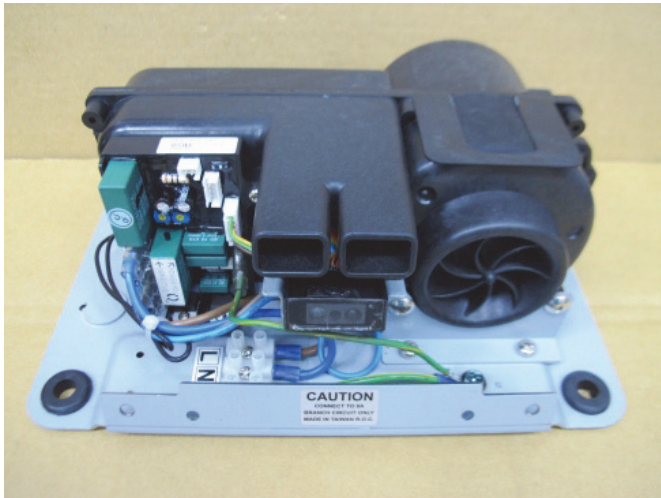


## Change filter assembly

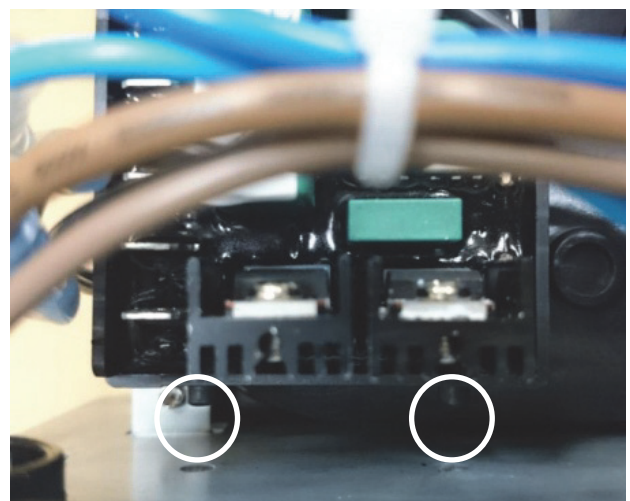
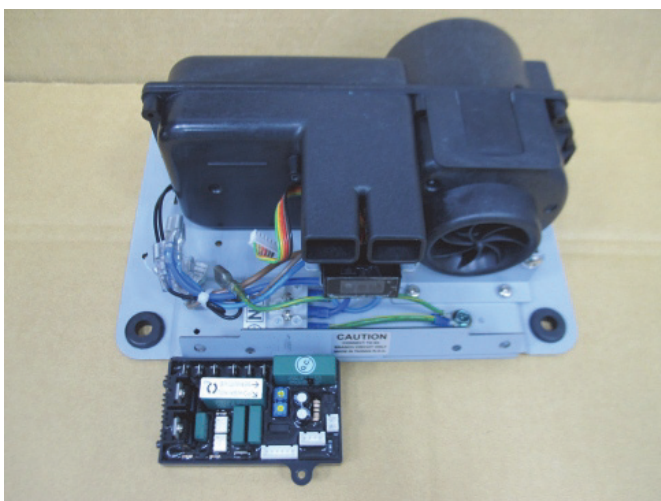
It is recommended to change the filter every six months.



## Timer replacement

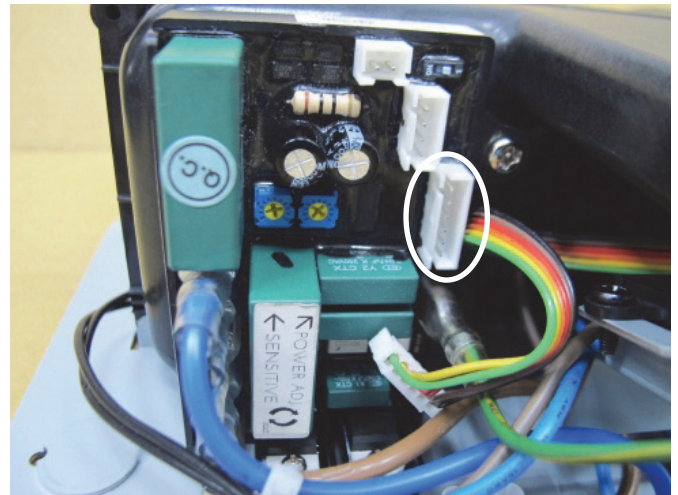
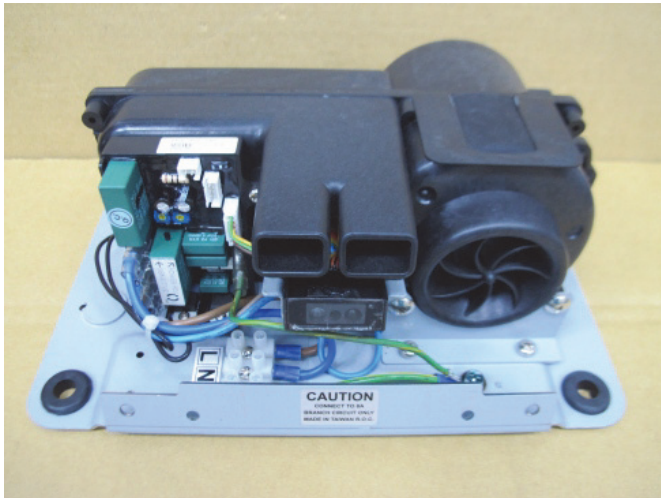


1. Pull off the four wires and remove the fixing screws of the timer.

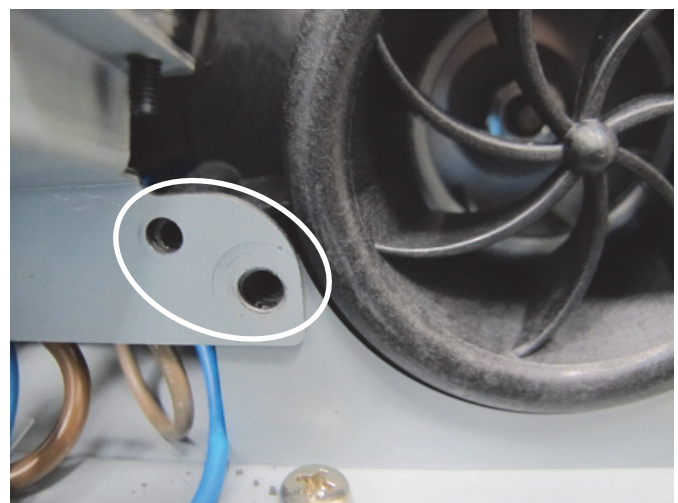
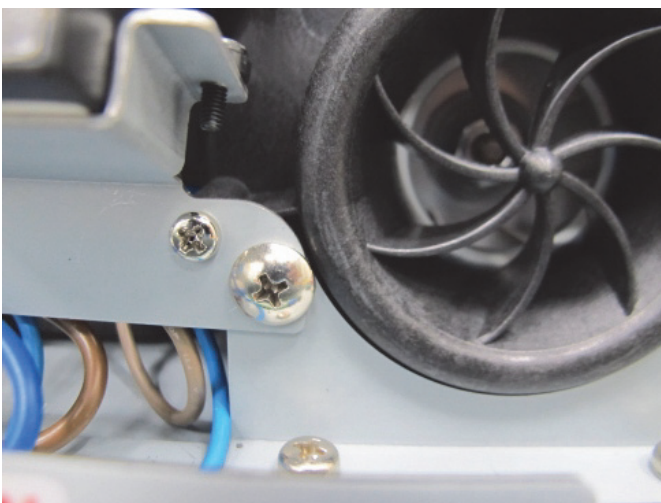


2. Ensure that the two flanges on the timer to be wedged in the two holes are on the base plate.  
3. Fix the timer to the blower and connect the four wires to the timer as the photos of procedure 1.

## Sensor replacement

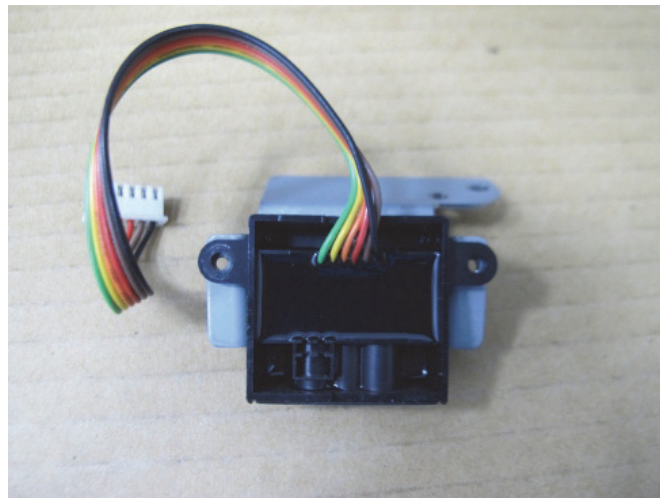
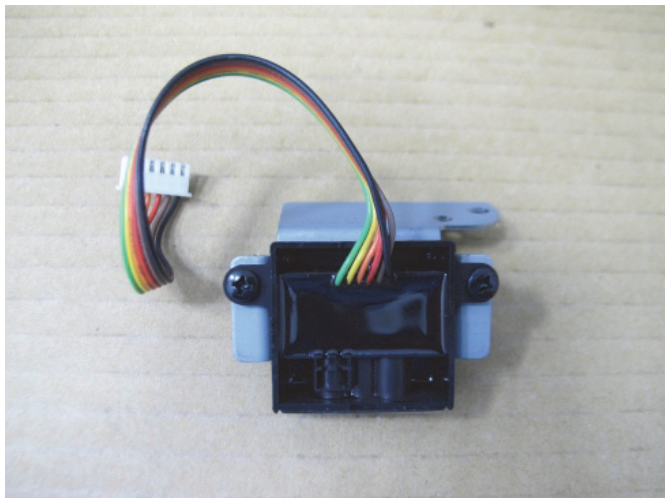


1. Pull off the wires that connect timer and remove the fixing screws of the timer.
2. Fix the sensor on the sensor bracket as in the photos of procedure 1, and plug the wires on the timer.



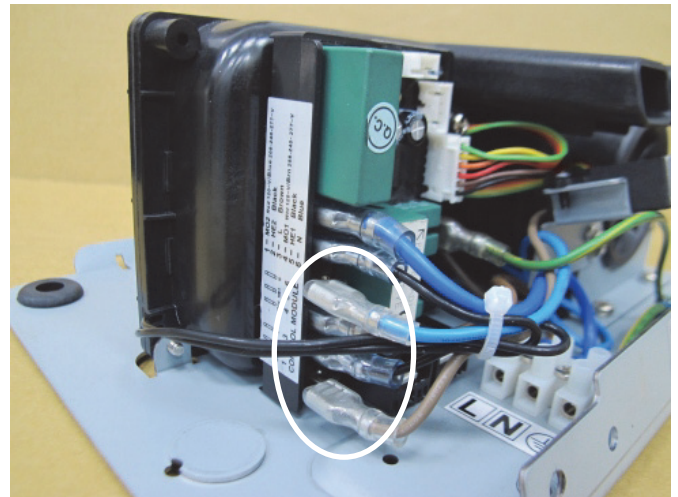
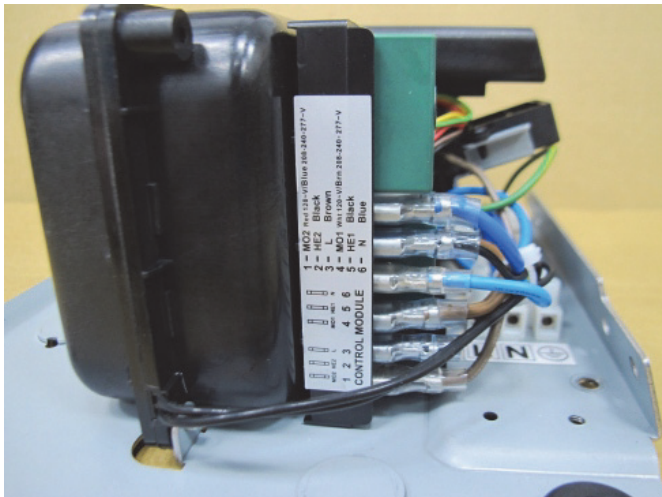
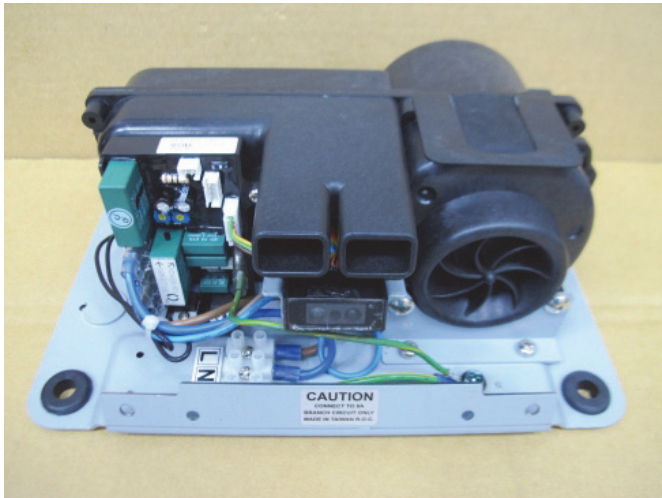
3. Remove the screws from the sensor bracket to take out the sensor.



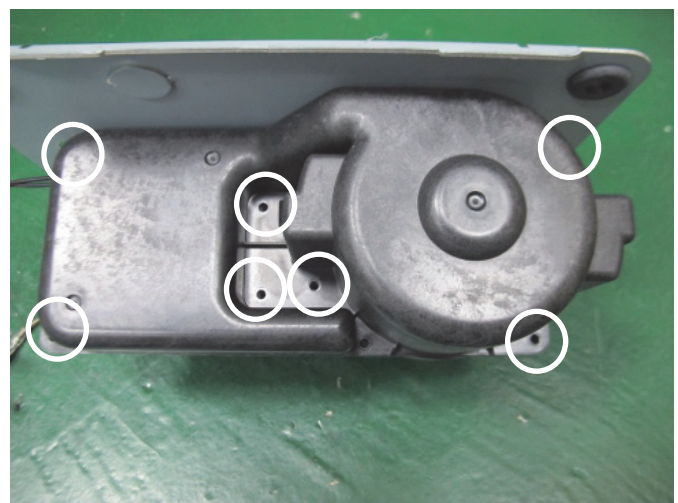


4. Remove the black screws on the sensor. Install the new sensor and reverse Steps 1~3 to fasten the sensor.

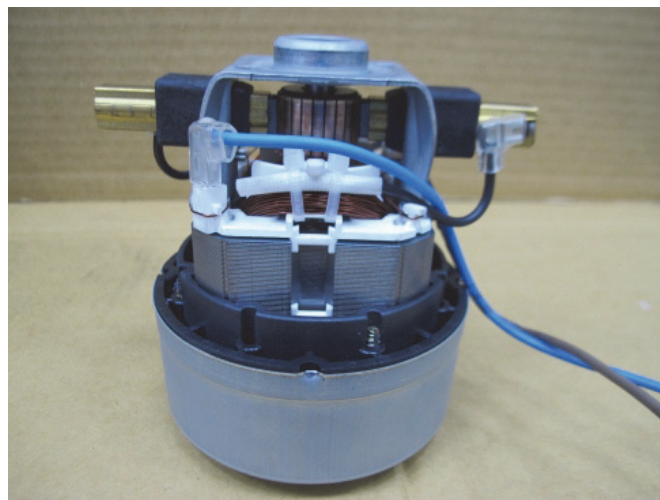
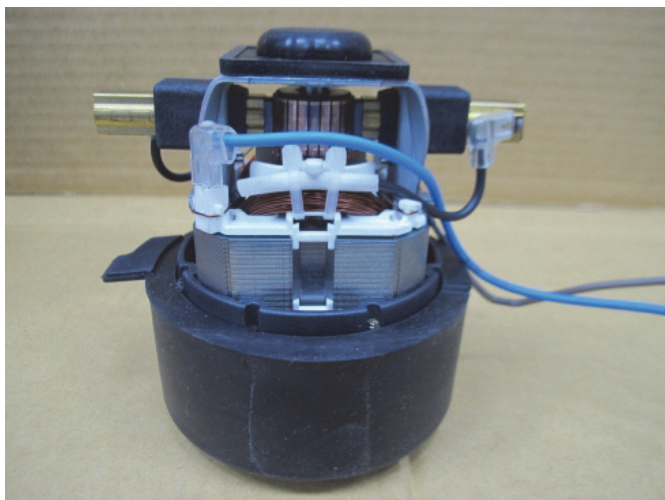
## Motor replacement



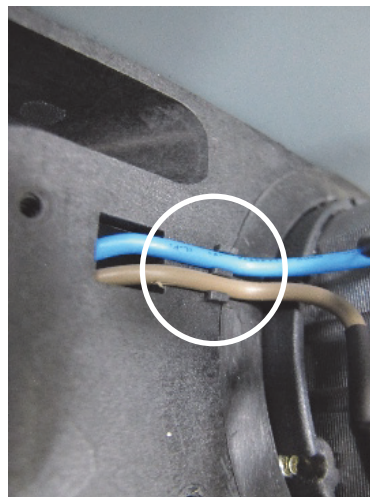
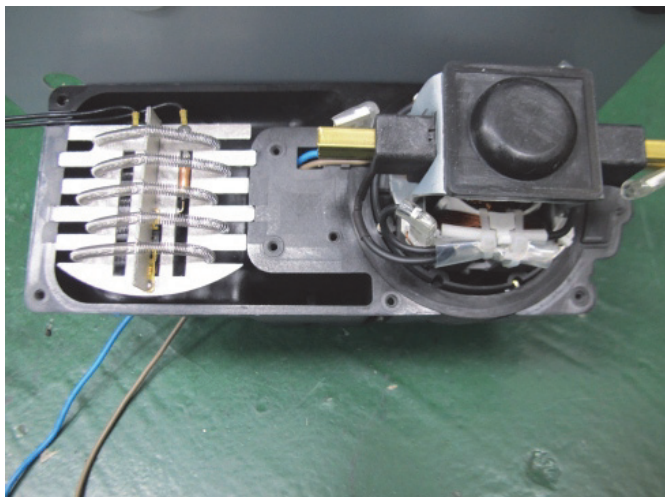
1. Remove the wires that connect motor to the timer.



2. Loosen the fixing screws of the blower and remove the blower housing.

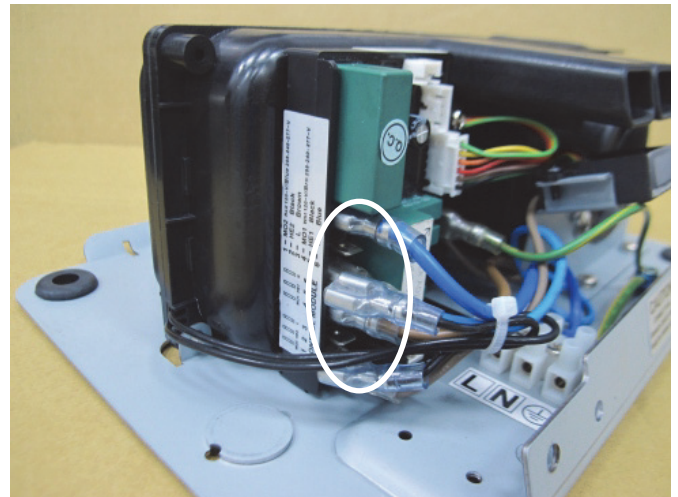
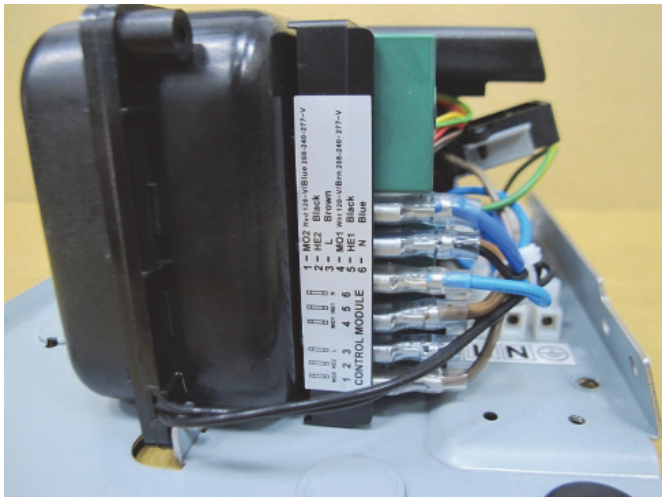
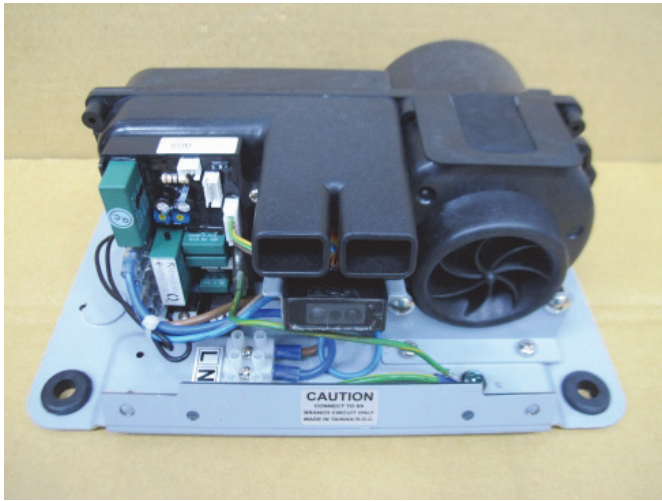


**3. Remove and retain both motor rubbers on the top and at the bottom. Place the two motor rubbers on the new motor. Reverse Steps 1 and 2 to place the new motor firmly in the motor housing.**

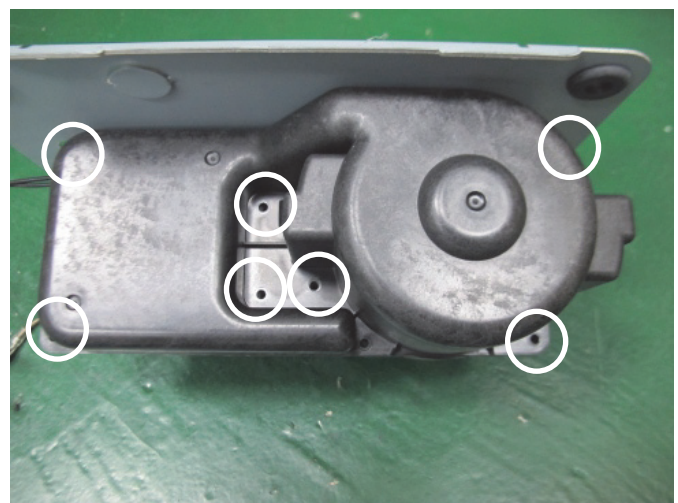


**4. To replace the motor, install the motor rubber (large/small) on the motor, and place the motor under the fan blower. The wire set must be fixed to the ditch in the lower housing of the blower.**

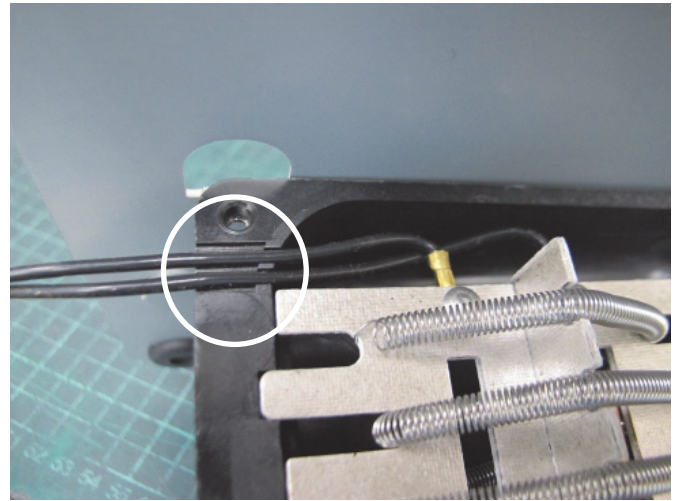
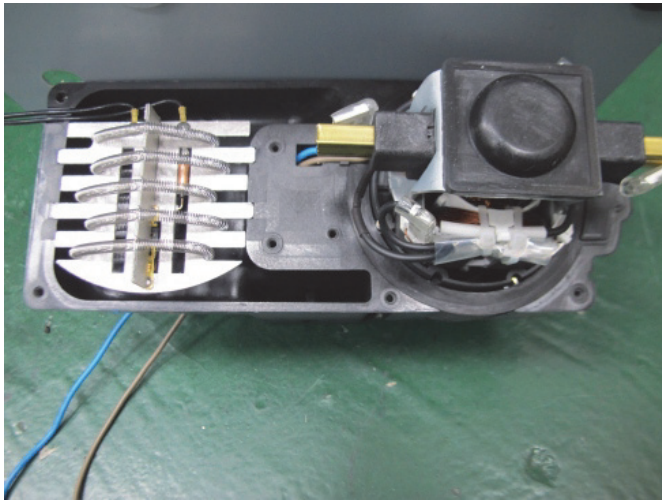
## Heater replacement



1. Remove the wires that connect heater to the timer.

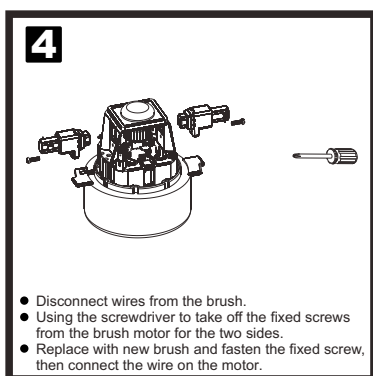
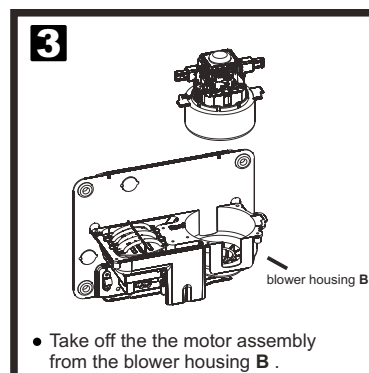
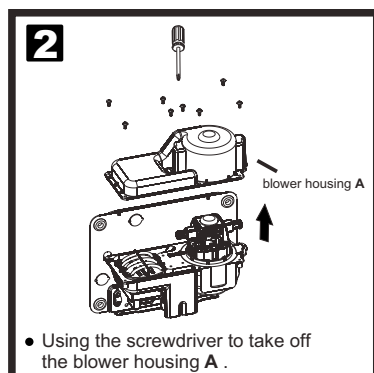
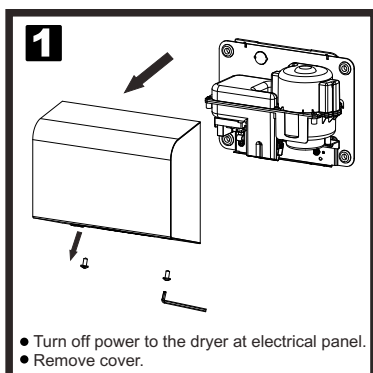


2. Loosen the fixing screws of the blower and remove the blower housing.



3. To replace the heater, the wire set must be fixed to the ditch in the lower housing of the blower.

## Brushes replacement



**THIS UNIT MUST BE FITTED AND SERVICED BY SUITABLY QUALIFIED PERSONNEL**

## Tools



**Philips Screwdriver**  
**Slotted Screwdriver**  
**Wire Cutter**  
**Modular Crimping Cuts Tool**

### Important Information

This Product falls within the scope of the Waste Electrical & Electronic Equipment Directive 2002/96 EC. (WEEE)



**NOTE:**

This Product should not be disposed of with household waste  
Please recycle where facilities exist.  
Check with your local authority for recycling advice.

## Diagnostics and Remedies

Symptom
If the dryer will not run
The dryer cycles by itself or runs constantly
The dryer makes a loud noise and does not run for a complete cycle
The dryer runs but air stream is low pressure and/or low velocity

Corrective Actions for Initial Installation Failures
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.
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.
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.
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
If the dryer will not run
The IR sensor only "sees" close range objects
The heater gets hot but no air stream is produced
The dryer only blows cold air during a full cycle
The air stream is low pressure and velocity

Corrective Actions for In-Service Failures
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.
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.
Disconnect the power. Remove the dryer cover and disassemble the blower-motor/fan housing. Replace the fan motor.
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.
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 ( $\leq 1\text{-}3/16''$ [30 mm] graphite remains) and replace them, if necessary.

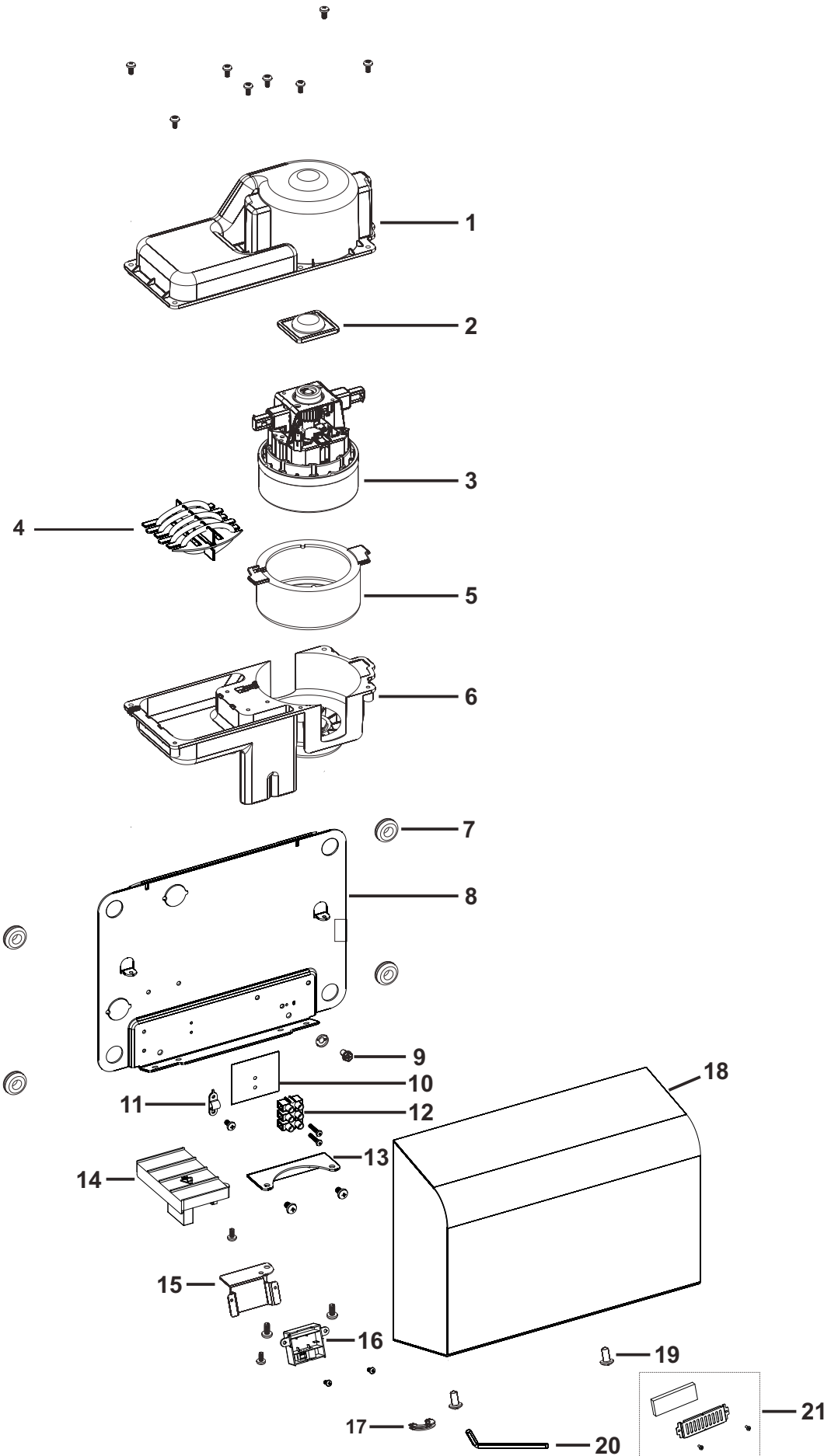
## Warranty

### LIMITED THREE-YEAR WARRANTY

Please see our website by following this link: <http://www.dolphindispensers.co.uk/> or contact our customer service team on 01424 202224 for more details.



### Diagram



### Repair parts list

Key	Description
1	Blower housing - Upper
2	Motor rubber - Small
3	Motor
4	Heater element
5	Motor rubber - Large
6	Blower housing - Below
7	Rubber grommet - Base
8	Base plate
9	Grounding screw with cup washer
10	Insulation Mylar
11	Nylon cable clamp
12	Terminal block
13	Blower mounting bracket
14	Circuit Board Module
15	Sensor bracket
16	Sensor module
17	Cable Protector
18	Enclosure (Casing)
19	Security hex screw (2 reqd.)
20	Security hex wrench
21	Filter assembly

Dolphin Solutions Ltd  
Southpoint, Compass Park,  
Junction Road  
Bodiam, TN32 5BS,  
United Kingdom  
T +44 (0)1424 202 224  
info@dolphinsolutions.co.uk  
dolphinsolutions.co.uk

© Dolphin Solutions Ltd