

TSL.R031

ribbon hand dryer

installation + maintenance

+
THE
SPLASH
LAB

contents

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TSL.R031 ribbon hand dryer

Read and save these instructions

WARNING

To reduce the risk of fire, electric shock or injury to persons, observe the following:

- + Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer (see back page for details).
- + This equipment should be installed in a way that ensures all electrical parts are kept dry.
- + A means of electrical isolation must be incorporated in the fixed wiring, in accordance with the current local regulations in force.
- + Disconnect the power supply before performing any maintenance on the product.
- + Children should not play with this equipment. Cleaning and maintenance shall not be performed by children without supervision.
- + This equipment is designed to be used in commercial and public areas; it is not intended for domestic or residential use.
- + Ensure wiring and cover is installed correctly before connecting to live power supply.
- + If in doubt, consult an electrician.
- + The dryer must be installed in accordance with the electrical installation regulations in force at the time of installation.
- + The hand dryer must be grounded.

General information

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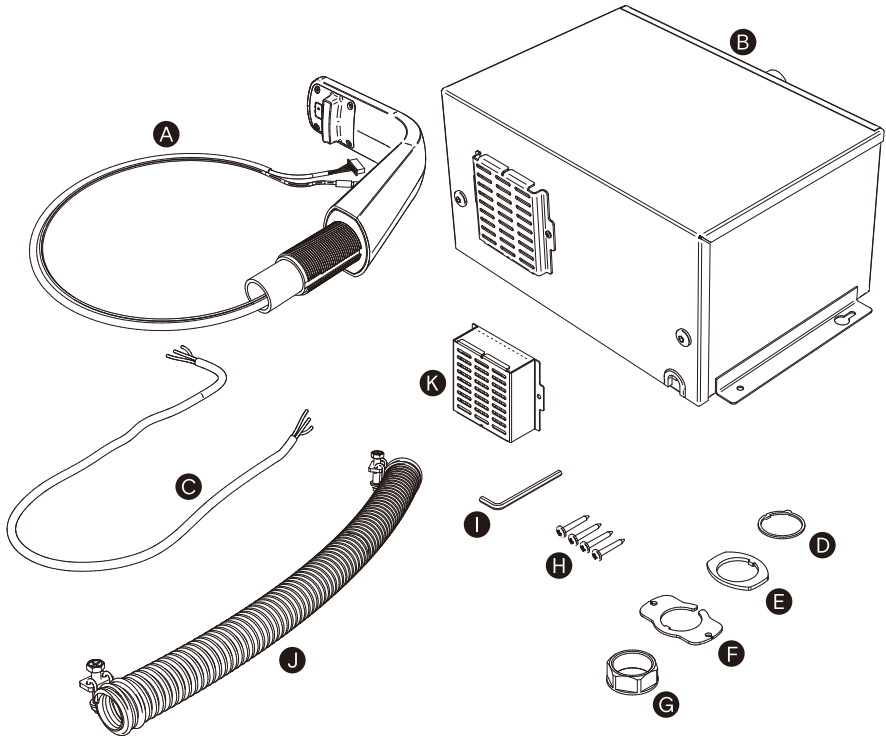
Technical support

Info.uk@thesplashlab.com

For further contact information visit:

www.thesplashlab.com

box contents



| | |
|---|--|
| A | Dryer head assembly |
| B | Hand dryer motor unit |
| C | Power cable |
| D | Anti-rotation collar (already installed) |
| E | Gasket (already installed) |
| F | Anti-rotation washer |
| G | Fixing nut |
| H | Motor mounting screws |
| I | Hex wrench |
| J | Air hose |
| K | HEPA filter (Optional) |

technical data

| | | |
|---------------------------|--|-------------------|
| Finishes | TSL.R031.C | Bright Polished |
| | TSL.R031.CS | Brushed Stainless |
| | TSL.R031.CP | Brushed Copper |
| | TSL.R031.BK | Brushed Black |
| | TSL.R031.BR | Brushed Brass |
| | TSL.R031.BZ | Brushed Bronze |
| <hr/> | | |
| Voltage | 220-240V ac; 50/60Hz | |
| Current | 3.8-4.2A | |
| Power consumption | 0.84-1.0kW | |
| Standby power | 0.3-0.4kW | |
| Drying time | <15 seconds | |
| Weight | 8kg | |
| Material | 304 Stainless steel | |
| Noise levels | 70.6dB | |
| Heating element | 500W | |
| Motor type | Brush type; dual ball bearings; | |
| Motor power | 500-350W | |
| Air speed | 84-101 m/s | |
| Air flow | 54 m ³ /h | |
| Sensor range | 120±20 mm | |
| Security cut-off time | 60 seconds | |
| Motor thermal protection | Auto resetting thermostat set at 95°C | |
| Heater thermal protection | Auto resetting thermostat set at 85°C Thermal cutout fuse set to 142°C | |
| Insulation | Class 1 | |
| IP rating | IP35 | |
| Approvals | CE, UKCA, RoHS, UL, cUL | |
| Warranty | One years limited warranty | |
| Filter | 3M filter assembly (HEPA filter is available for this product, please enquire for technical information) | |

before you install

Location

Ribbon hand dryers are supplied with 450mm of flexible hose, so the dryer motor unit must be fitted within 450mm of the head unit, to ensure that the motor air-outlet head can be connected.

Basins

Use of a The Splash Lab Monolith basin is recommended for use with the Ribbon range of products. If an alternative basin is used, then appropriate mounting points must be created in basin or countertop to accommodate the Ribbon products.

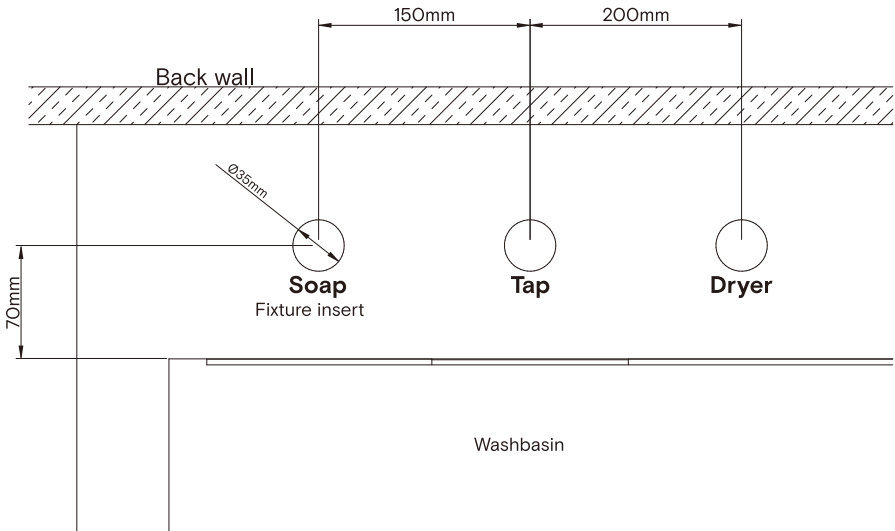
Power supply

A 8A fused supply must be provided for connection to the mains power supply. Disclaimer: Circuits should only use 80% of their given amperage to prevent overloads.

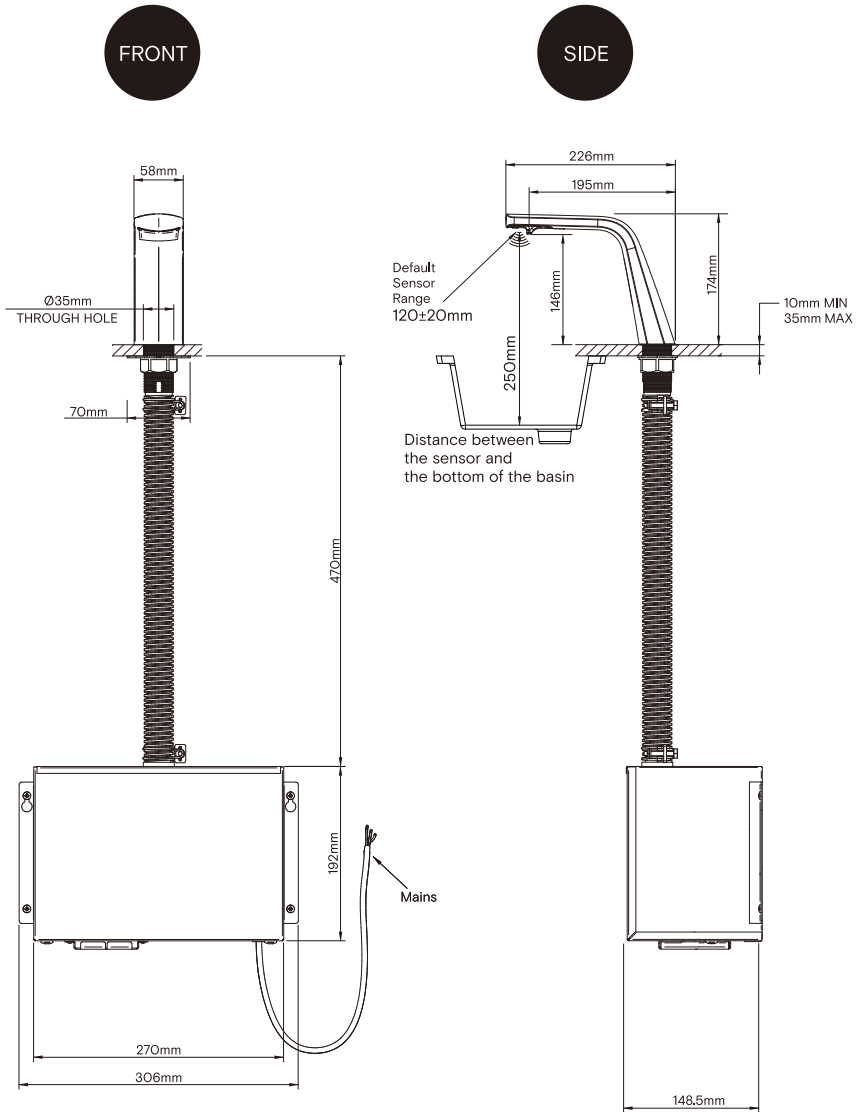
Spacing

If the Ribbon Hand Dryer is installed with other units from the Ribbon range, the Ribbon Tap, which is at the center, should be 200mm to the left of the Hand Dryer. The Ribbon Soap Dispenser should be 150mm to the left of the Tap.

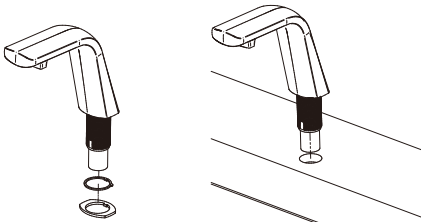
Top view



before you install

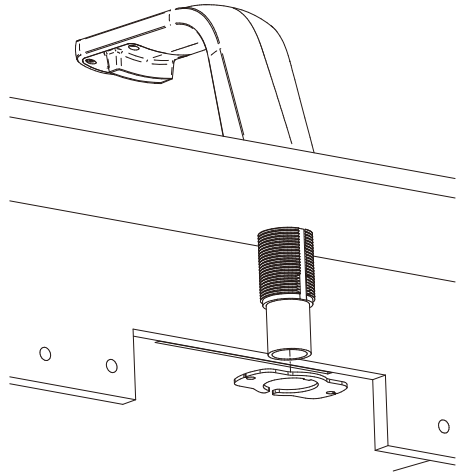


how to install



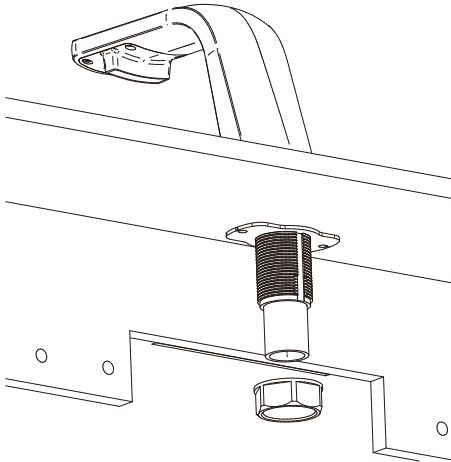
1

Drill hole 35mm diameter in counter-top, if not already cut.



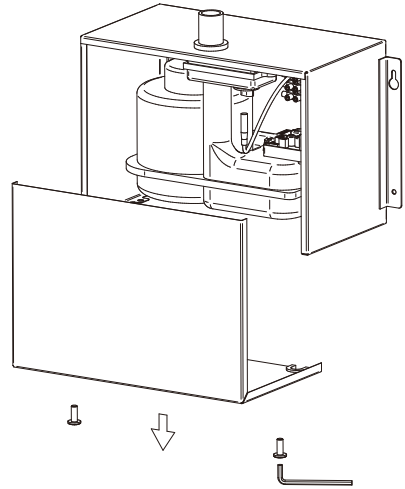
2

Fit anti-rotation washer from below basin.



3

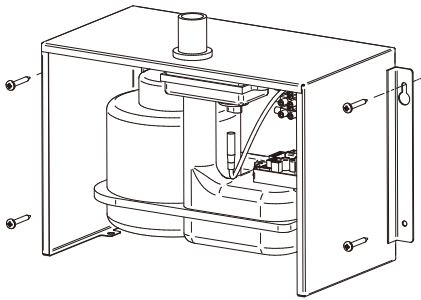
Fix fixing nut, and secure using wrench.



4

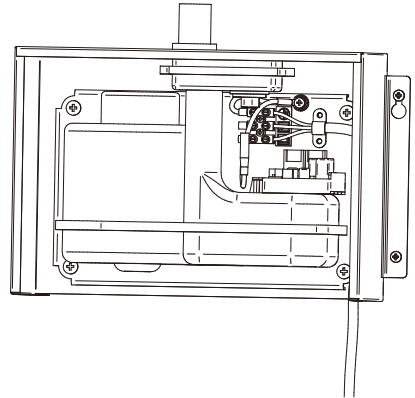
Remove cover-fixing screws from underside of dryer motor using the security hex key provided, and then remove the cover.

how to install



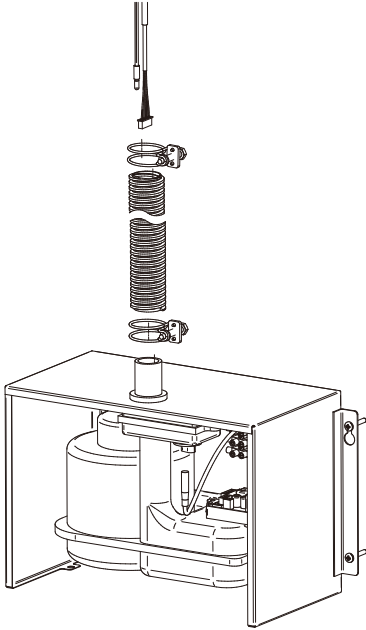
5

Fit the dryer motor unit to wall or cabinet, within 450mm of the dryer nozzle already installed on the basin / countertop.



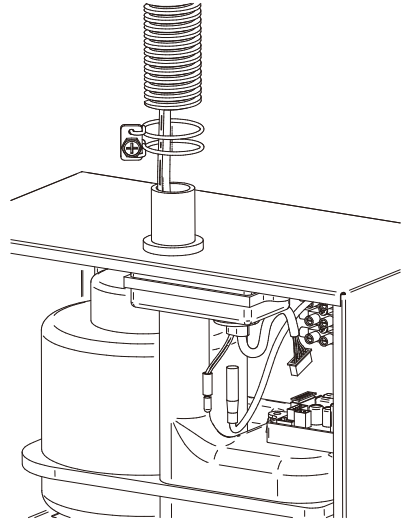
6

Thread the power cable through the knockout in the back or base of the dryer and feed to connector block. Connect the cables as marked on the dryer unit. (Cable supplied pre-fitted)



7

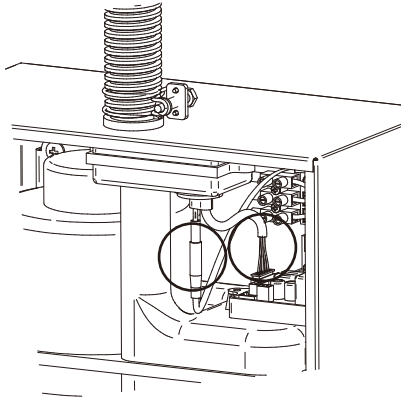
Thread the sensor and ground cables through the air-hose.



8

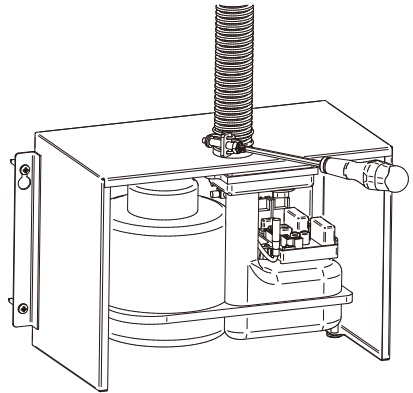
Feed cables into air outlet nozzle and then through cable exit grommet.

how to install



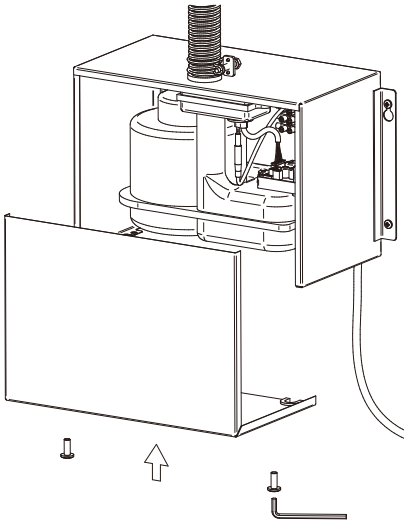
9

Connect the sensor cable to the 6-pin fitting on the PCB control, and the ground cable to the corresponding earth connector in the dryer motor unit.



10

Connect air hose onto outlet nozzle on dryer motor and tighten hose clamp.



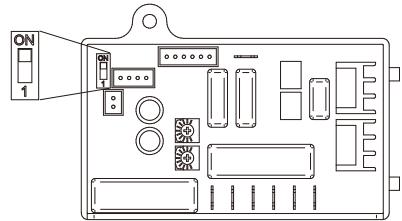
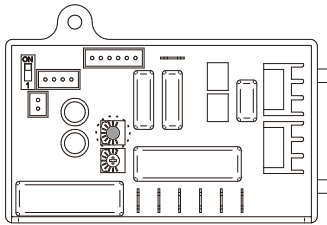
11

Re-fit the dryer cover and tighten the fixing screws.

commissioning

Turn on the power supply to the dryer, and then test that the dryer will operate when the user's hands are placed within the detection range.

The motor speed can be adjusted to suit user preference and the environment, if required. The heater element can also be switched off if desired.



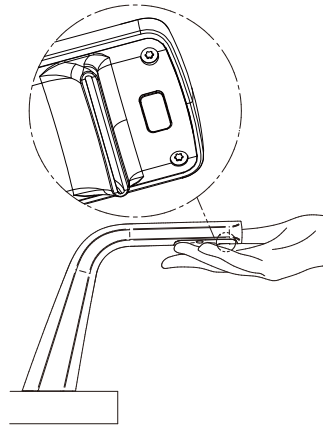
Warm air speed adjustment

1. Switch off the power, loosen the cover screws and remove the cover.
2. Use small Phillips head screwdriver to turn variable resistor shaft. Turn clockwise ↻ to increase the motor speed; turn counter-clockwise ↻ to reduce the motor speed.

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 Slide the switch to 'ON':
Enables heater
 - 2-2 Slide the switch to '1':
Disables heater

resetting the sensor



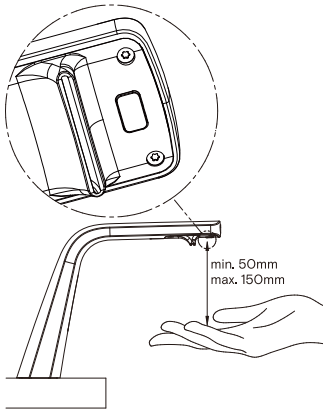
1

First disconnect the Ribbon Tap head from the Power unit. Wait a minimum of 4 seconds and reconnect the power.

2

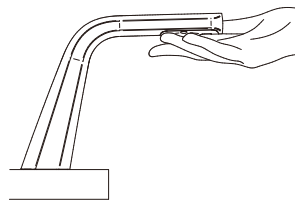
After connecting to power, immediately place your hand at about 5mm below the sensor on the tap head and keep it there for 3 seconds.

resetting the sensor



3

At the end of the 3 seconds, move your hand away from the sensor and down towards the wash basin to set the desired sensor range (min. 50mm / max. 150mm) and keep your hands at the desired position for 3 seconds.



4

At the end of 3 seconds, move your hand back to the original 5mm position from the sensor and keep at the position for 3 seconds to complete setting up the desired sensor range.

*Remove reflective clothing during installation.

operation

- + The user is to shake excess water off their hands.
- + The user then places their hands within the detection range of the sensor to activate the hand dryer.
- + The motor will start and air is blown onto the user's hands.
- + The motor will stop when the user's hands are removed from the detection range.

maintenance & cleaning

*Isolate the unit from the power supply before any servicing or maintenance work is carried out.

How to clean the spout of hand dryer and how regularly

- + Please use a clean cloth to wipe away the dusts and/or water mark on the spout or use a damp cloth to clean it. It is recommended to clean the spout every six months, depending on the frequency of usage and environment.
-

How to clean the inside of the mechanism case and how regularly

- + Please cut off the power, remove the case and use dry cloth, soft brush or air duster gun to wipe away the dusts inside. It is recommended to clean the inside of the mechanism case every six months, depending on the frequency of usage and environment.
-

What should NOT be used

- + Do not use steel brush or abrasive that could scratch the spout.
-

When to change filter

- + When the air speed is obviously weakened. It is recommended to change filter every six months, depending on the frequency of usage and environment.
-

How to change filter

- + The filter is located under the mechanism case. Please unscrew the filter holder, the filter can then be directly removed and replaced.
-

Cleaning around the dryer setting which could affect the dryer

- + Dusts and objects around mechanism case could affect the air intake and the performance of motor, therefore, please do keep the environment tidy.
-

Best care for PVD Finishes

- + You can clean the PVD finished spouts with a damp cloth and water. Do not use cleaning solution or liquid alcohol.
-

troubleshooting

initial installation

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.
-

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 circuit board module has been damaged, replace it and the infra-red sensor module.)
-

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.
-

We are always looking to improve. If these did not solve your problem please contact us and we will endeavour to help.

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Email: Info.uk@thesplashlab.com

troubleshooting

in-service 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. 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.
-

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. Check sensor range setting (see pages 16). If problem persists, disconnect the power and remove the dryer cover and replace CBM, IR sensor module.
-

The heater gets hot but no air stream is produced:

- + Disconnect the power. Remove the dryer cover. Check variable resistor for speed setting. Disassemble the blower- motor/ fan housing. Replace the fan motor. Reassemble.
-

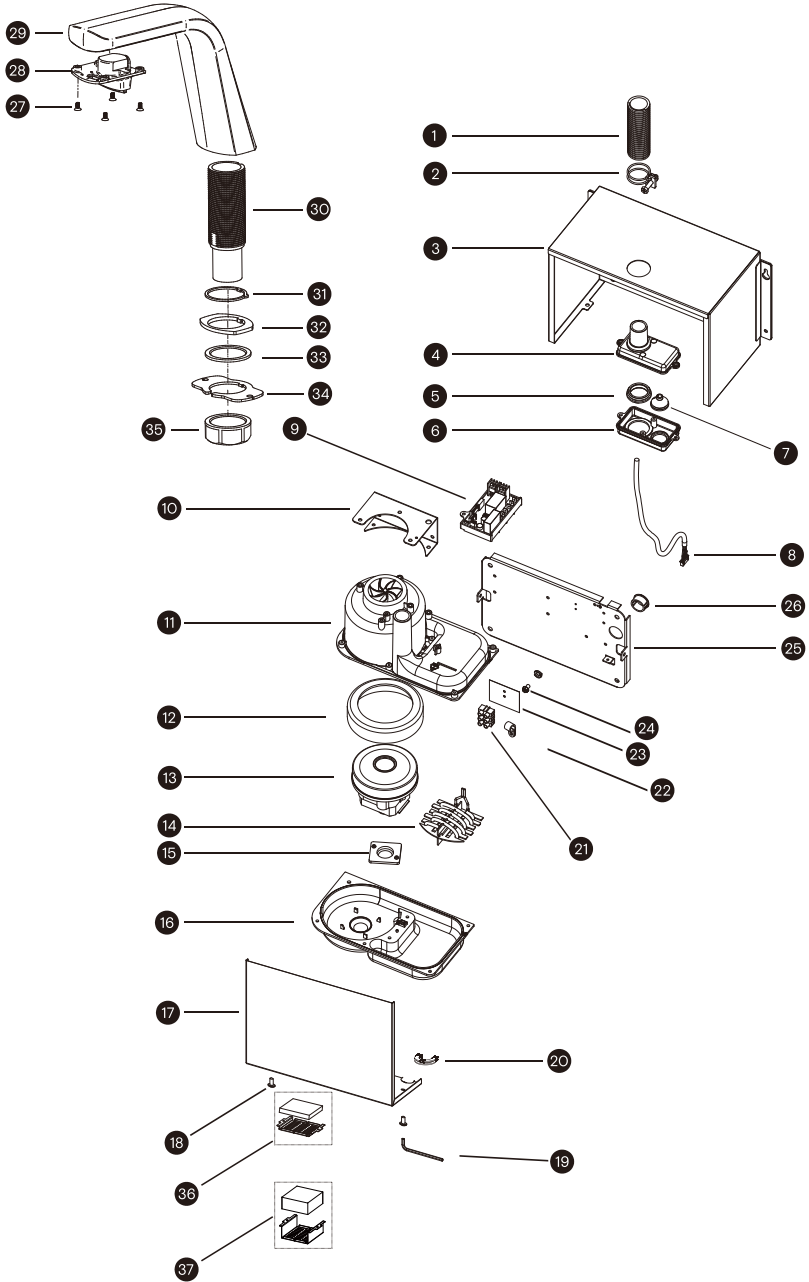
The dryer only blows cold air during a full cycle:

- + Disconnect the power. Remove the dryer cover and check/ ensure heater switch is ON. 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. Check VR for speed setting. Disassemble the blower / motor / fan housing. Check motor brushes for wear; if less than 6mm is remaining. Replace motor.
-

diagram



spare parts & accessories

Spare parts'

| | | | |
|----|--|----|---|
| 1 | Flexible air hose | 21 | Terminal block |
| 2 | Stainless steel hose clamp | 22 | Mains cable clamp |
| 3 | Stainless steel motor case | 23 | Terminal block insulation plate - Mylar |
| 4 | Connector - top cap | 24 | Earth screw |
| 5 | Connector - packing | 25 | Motor base plate |
| 6 | Connector - bottom cap | 26 | Motor back plate cable entry grommet |
| 7 | Cable exit grommet | 27 | Air outlet fixing screws |
| 8 | Sensor & cable assembly | 28 | Air outlet faceplate |
| 9 | Circuit board module (PCB) | 29 | Air outlet body |
| 10 | Blower mounting bracket | 30 | Air outlet tube / mounting spigot |
| 11 | Blower motor housing - lower section | 31 | Anti-rotation ring |
| 12 | Motor mounting rubber - Lower | 32 | Sealing gasket |
| 13 | Motor | 33 | Rubber gasket |
| 14 | Heater element | 34 | Air rotation fixing washer |
| 15 | Motor mounting rubber - Upper | 35 | Mounting nut |
| 16 | Blower motor housing - Upper | 36 | 3M filter assembly |
| 17 | Stainless steel front cover plate | 37 | HEPA filter assembly (Optional) |
| 18 | Motor cover fixing screws (2 required) | | |
| 19 | Hex wrench | | |
| 20 | Motor case cable entry grommet | | |

If further information is required, contact The Splash Lab team for more detailed guidelines.

contact



General information

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