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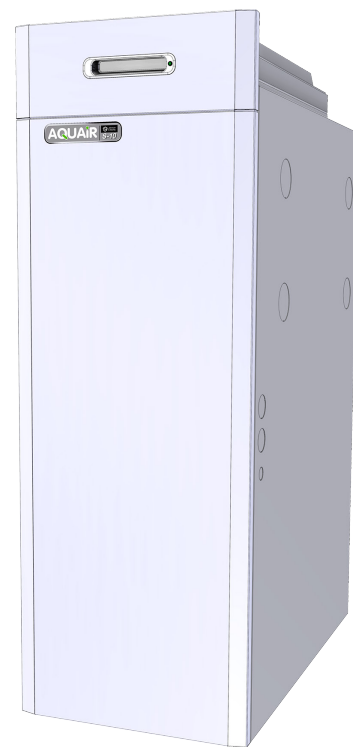
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# CLEANFLOW

*Electronic Air Cleaner*

## Filter & Pad Replacement

for Aquair S, Downflow & Upflow



### FITTING INSTRUCTIONS

**AQUAIR S-10 CLEANFLOW - CFA10**

**AQUAIR S-16 CLEANFLOW - CFA16**

**AQUAIR S-20 CLEANFLOW - CFA20**

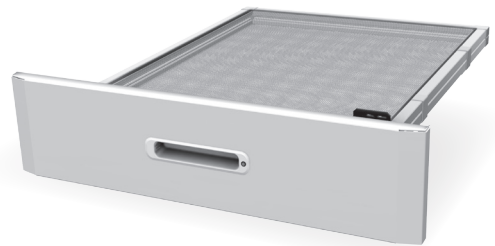
These instructions are to be left with the User



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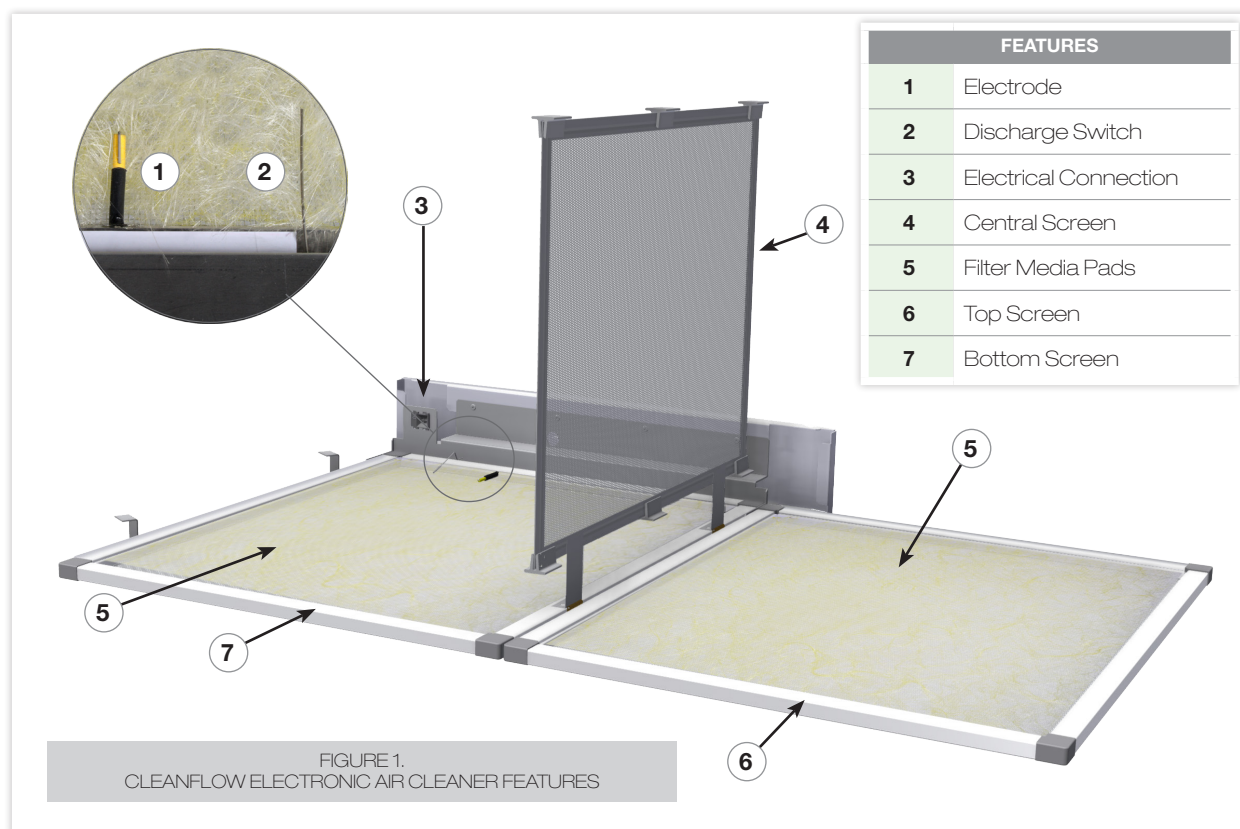
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**In the interest of continuous development Johnson and Starley reserves the right to change specification without prior notice. Johnson and Starley prides itself on its ability to supply spare parts quickly and efficiently. If your service engineer indicates a problem in obtaining a spare part, advise him to contact Johnson and Starley Spares Department.**

## 1. FEATURES



## 2. CONTENT

CLEANFLOW KIT		
ITEM	DESCRIPTION	QTY
1	Cleanflow Electronic Air Cleaner	1
2	Cleaner Frame Assembly	1
3	Filter Media Pads	2
4	Fitting Instructions	1

SIDE RETURN AIR CONFIGURATION SRAQ KIT (SOLD SEPARATELY)		
ITEM	DESCRIPTION	QTY
1	Side Return Air Adaptor	1
2	Blanking Plate	1
3	Self-drilling Screws	6
4	Fitting Instructions	1

**NOTE:** If the Cleanflow is to be fitted to a Side Return Air configuration, DO NOT fit the Cleanflow until the SRAQ kit is fitted.

## 3. GENERAL INFORMATION

- 3.1 The Cleanflow Electronic Air Cleaner is designed to replace the passive air filter on the Aquair S Series of units. It provides an inexpensive means of efficiently cleaning the air of dust, pollen and even smoke. The electronic air cleaner consists of two special filter media pads mounted inside a retaining frame and a central screen between the pads. Dust and other particles passing near to the media are attracted to them and retained by an electrostatic charge. The particles themselves, however, are not charged: any of them which may escape the filter will not be attracted to walls, curtains or furniture.
- 3.2 The power consumption of the cleaner is rather low (less than 1 Watt) and it has been arranged to operate when the air circulation fan is running.
- 3.3 The Cleanflow has been designed to fit onto a Downflow unit, Downflow with Side Return Air and Upflow with Side Return Air configurations. On both Side Return Air options an additional SRAQ Kit is required, which MUST be fitted before the Cleanflow.

## 4. PREPARATION

- 4.1 Refer to the Aquair S Installation Instructions supplied with the unit.
- 4.2 Isolate the heater electrical supply.
- 4.3 Remove the air filter to expose the screws for the compartment door.
- 4.4 Unscrew the 2 screws and remove the door.

**NOTE:** For Side Return Air

- 4.5 Remove the four knockouts on the required side.
- 4.6 Cut out opening in the side panel (shown dotted, Figure 2).

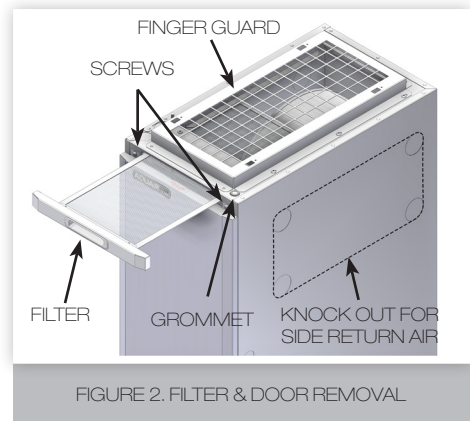


FIGURE 2. FILTER & DOOR REMOVAL

## 5. FITTING: DOWNFLOW

- 5.1. To fit the cleaner frame to the finger guard, locate the 4 locking tabs into the 4 rectangular holes and slide the frame away from you until the tabs lock into position. See Figure 3.
- 5.2 Remove the grommet from the top corner of the cabinet and feed the harness from the Cleanflow through the hole. Use the sealing grommet on the harness to seal the hole. See Figure 4.
- 5.3 Connect the harness to the PCB. See Figures 5 and 12.
- 5.4 Refit the door and screw it into place.
- 5.5 Insert Cleanflow cassette into the frame.

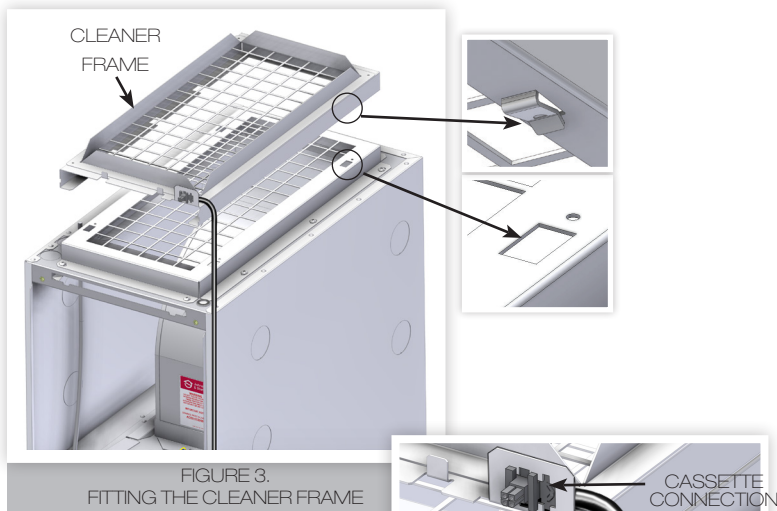


FIGURE 3. FITTING THE CLEANER FRAME

FIGURE 4. HARNESS CONNECTION

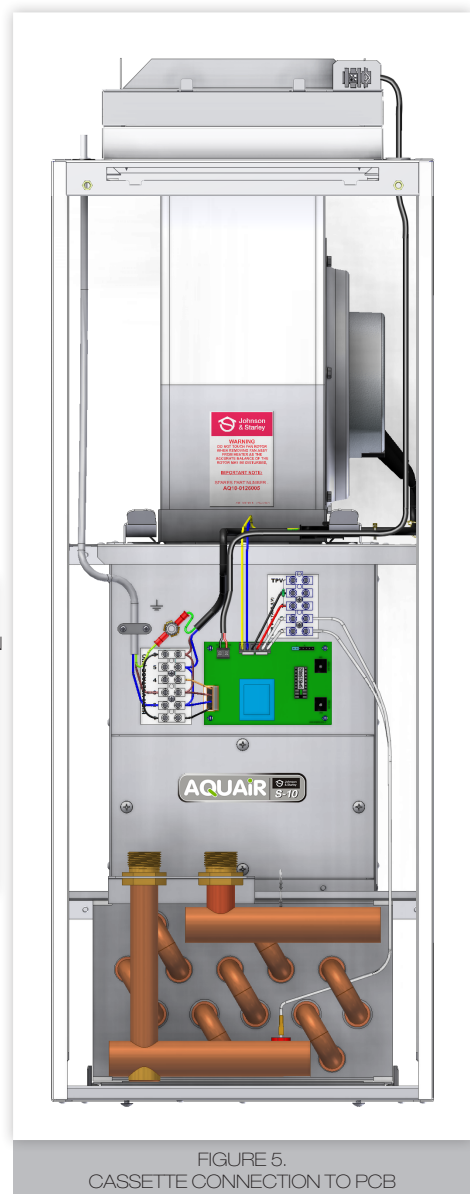
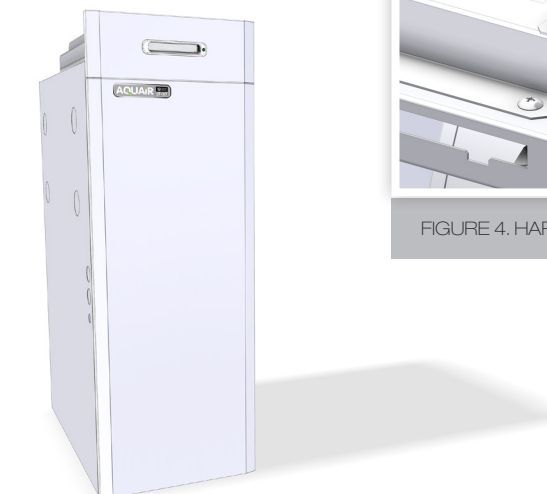


FIGURE 5. CASSETTE CONNECTION TO PCB



## 6. FITTING: DOWNFLOW WITH SRAQ

**NOTE:** These instructions show a right-hand-side return air configuration. For the left hand configuration, follow the same instructions and fit the harness accordingly.

**NOTE: Before fitting the Cleanflow, please make sure the side return air kit (SRAQ) is fitted.**

- 6.1 To fit the cleaner frame to the Side Return Air frame, locate the 4 locking tabs into the 4 rectangular holes and slide the frame away from you until the tabs lock into position. See Figures 3 and 7.
- 6.2 Remove the grommet from the top corner of the cabinet and feed the harness from the Cleanflow through the hole. Use the sealing grommet on the harness to seal the hole. See Figures 4 & 8.
- 6.3 Connect the harness to the PCB. See Figures 8 and 12.
- 6.4 Refit the door and screw it into place. Then insert the blanking plate into the top filter slot.
- 6.5 Insert Cleanflow cassette into the cleaner frame.



FIGURE 6.  
SIDE RETURN AIR KIT



FIGURE 7. CLEANER FRAME

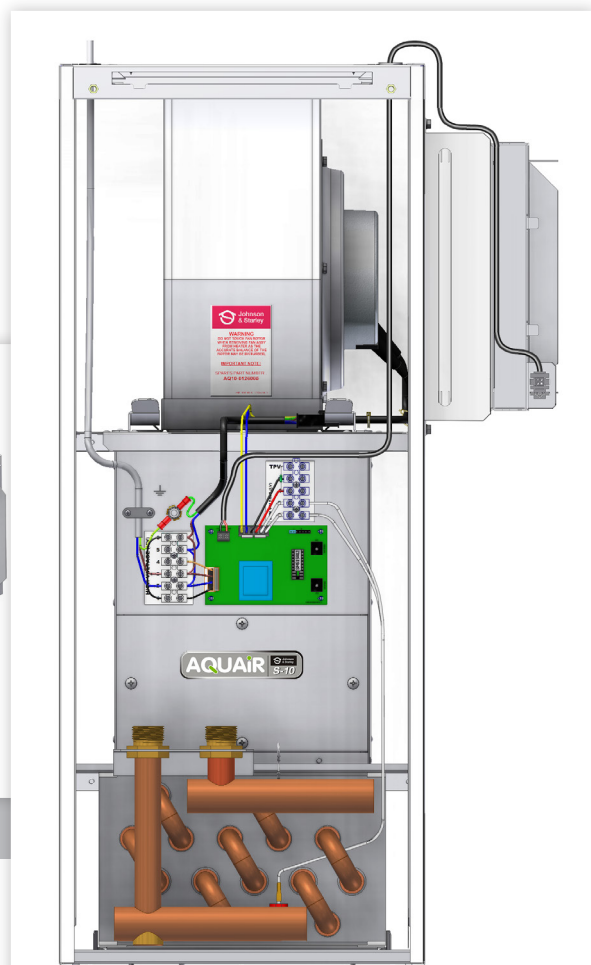


FIGURE 8.  
RIGHT HAND CASSETTE CONNECTION TO PCB



## 7. FITTING: UPFLOW WITH SRAQ

**NOTE:** These instructions show a left-hand-side return air configuration. For the right hand configuration, follow the same instructions and fit the harness accordingly.

**NOTE: Before fitting this Cleanflow, please make sure the Side Return Air Kit (SRAQ) is fitted.**

- 7.1 To fit the cleaner frame to the Side Return Air frame, locate the 4 locking tabs into the 4 rectangular holes and slide the frame away from you until the tabs lock into position. See Figures 3 and 10.
- 7.2 Remove the grommet from the Cleanflow harness. Feed the harness through the side grommet with the mains cable. See Figure 11.
- 7.3 Connect the harness to the PCB. See Figure 12.
- 7.4 Refit the door and screw it into place. Then insert the blanking plate into the filter slot at the bottom of the unit.
- 7.5 Insert cassette into the cleaner frame.



FIGURE 9.  
SIDE RETURN AIR KIT



FIGURE 10. CLEANER FRAME

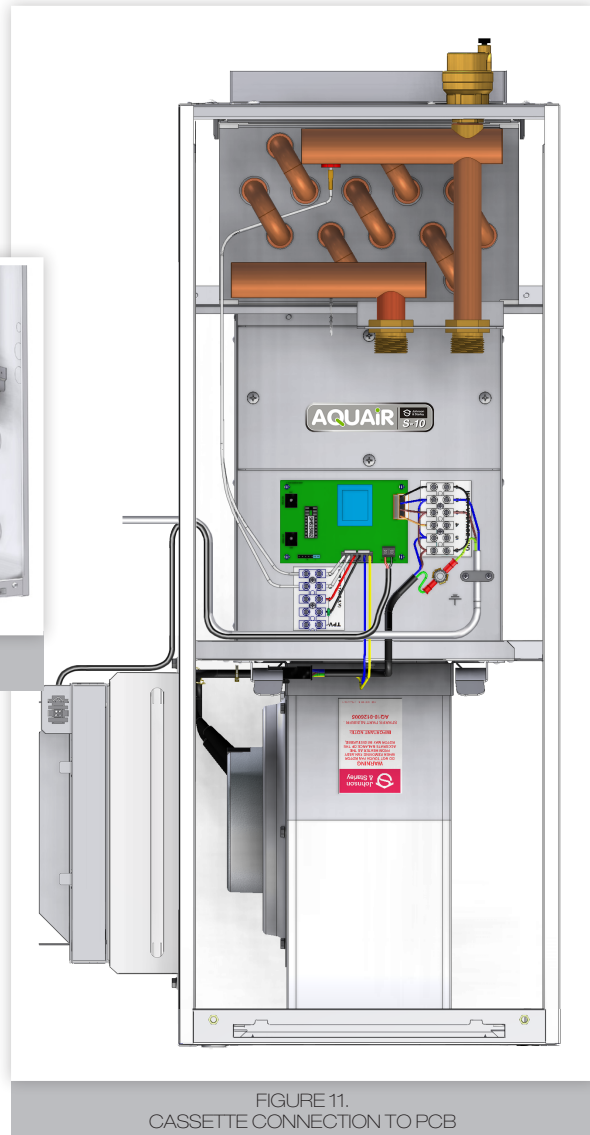
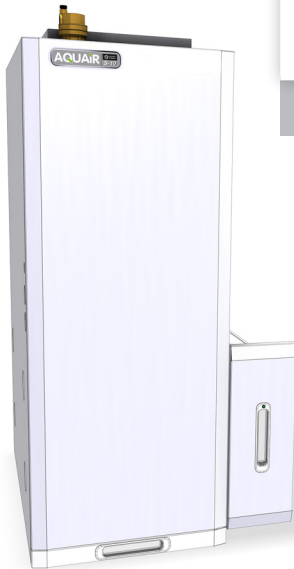


FIGURE 11.  
CASSETTE CONNECTION TO PCB

## 8. COMMISSIONING

- 8.1 Switch on the electrical power to the unit.
- 8.2 The Cleanflow only operates when the Air Circulation Fan is running. To check that the Cleanflow is operating, either
  - a. turn on the Summer Air switch (if fitted) or
  - b. turn on the heating system to operate the Air Circulation Fan.When the Air Circulation Fan is running, the LED green light should illuminate on the front face of the Cleanflow. See Figure 13.
- 8.2 Remove the Cleanflow cassette.
- 8.3 Replace door cover and return the Cleanflow cassette into its slot.
- 8.4 Leave these Cleanflow Filter Instructions with the occupant, having first explained to the user how to replace the filter pads.

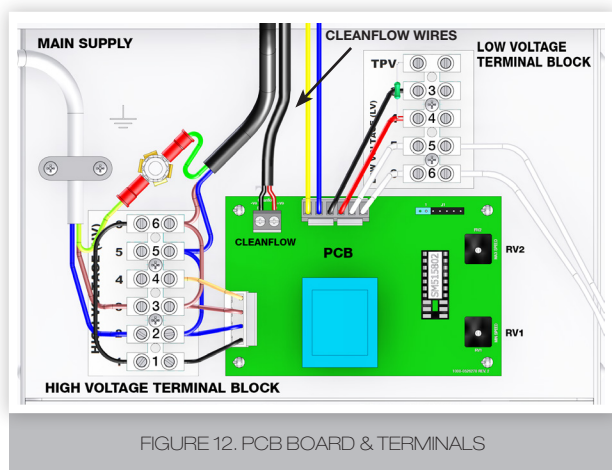


FIGURE 12. PCB BOARD & TERMINALS



FIGURE 13. LED LIGHT

## 9. MAINTENANCE

- 9.1 The only maintenance required is to remove the Cleanflow cassette approximately every fortnight, inspect it for build-up of dust and deposits and, if necessary, remove deposits from the screens and periodically replace the cleaner pads.

**NOTE:** If the cleaner pads are allowed to collect too much dust, operation of the air cleaner and air heater may become ineffective.

## 10. PAD REPLACEMENT

- 10.1 Switch OFF the electrical supply to the unit.
- 10.2 Gently withdraw the cassette and vacuum off any accumulated dust from the outside.
- 10.3 Undo the two latches and open the cleaner cassette.
- 10.4 Before removing the dirty pads, note that the yellow electrode and the thin spring-like wire (discharge switch) are on top of one of the pads - **THIS IS MOST IMPORTANT.**
- 10.5 Remove the two pads (taking care not to damage the electrode and discharge switch) and discard them.
- 10.6 Remove any remaining dust from the mesh screens with a soft brush or vacuum cleaner.
- WARNING:** Do not use water to clean the unit or the pads.
- 10.7 With the Cleanflow cassette lying open on a flat surface, fit 2 clean pads.
- NOTE:** One side of the cleaner pad is lightly treated with a yellow resin agent. This side faces outward (away from the central screen).
- 10.8 Close the Cleanflow cassette carefully, ensuring that the pads do not move off the centre.
- 10.9 Close the latches and check that there are no gaps between the pads and the outer frame.
- NOTE:** When the frame is closed, the insulated electrode must be in firm contact with the central screen.
- IMPORTANT:** Use only genuine CLEANFLOW replacement Cleaner pads. Do not use substitutes, as other materials may cause discharge and generation of ozone. Replacement pads are available in packs containing three sets. When ordering, please specify the part number which can be found on the label situated on the Cleaner cassette frame.
- 10.10 Refit the Cleaner cassette into the unit.

## 11. TROUBLESHOOTING

- 11.1 If your Cleanflow is not working correctly, remove the Cleanflow cassette from the unit and check the media pads for excessive build-up of dust. Clean the Cleanflow assembly and replace the pads if necessary.
- 11.2 Ensure that the pads are completely dry. Damp pads may be dried using a hair drier. If in any doubt, always replace the pads.
- 11.3 If the unit emits a crackling noise, sparking is occurring in the unit either because a conductive material is caught on the pads, or the outer screens are bowed in towards the centre screen. Remove the Cleaner assembly, remove and examine the pads (carefully removing any conductive material that may be causing arcing), and lightly press all around the edges of the outer screens to ensure that they bow away slightly from the central screen. Change the pads if necessary.



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