

Flanders[®]

FLANDERS FILTERS, INC
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AIRVELOPE[®] Model 39 (Fabricated)

Self-Contained Terminal Filter Housing

Installation, Operation,
and Maintenance Manual

AIRVELOPE[®] Model 39

Self-Contained Terminal Filter Housing

The AIRVELOPE Model 39 is a low profile, self contained clean air housing which may be mounted for spot applications in rooms over work stations, or placed into a standard T-bar ceiling with a 2' x 2' or a 2' x 4' grid. It may be used singly or grouped with other housings to meet any size application. The low profile design allows it to be used in areas of limited overhead clearance. Each Flanders AIRVELOPE housing design is factory tested to assure its performance will comply to the CLASS 100 level as specified by Fed-Std-209E. HEPA filters for the AIRVELOPE Model 39 are Flanders separatorles 2" deep Dimple Pleat filters. HEPA filters are roomside replacable and prefilters are topside removable. If a foam prefilter is used it may be washed in soapy water and reused.

Installation Instructions

The AIRVELOPE Model 39 is shipped in a cardboard box with the prefilter and the grille in place. The HEPA filters are shipped separately in individual cardboard cartons. DO NOT unpackage the HEPA filter until you are ready to install it in the housing.

STEP 1: Remove the AIRVELOPE housing from its shipping container.

STEP 2: The housing is equipped with a hanging tab onm each corner to support weight by supension. The housing may be installed by one of the following methods:

(A) Suspension Above the Ceiling – If a T-bar ceiling or other type of recessed mounting is used the housing should be secured in place and adjusted to meet the mounting surface. A Silicone sealant such RTV 732 should be used around the entire downstream perimeter where the housing and mounting surface meet. Wipr all excess sealant leaving a smooth fillet and allow to cure.

(B) Suspension Below the Sealing – If the housing is to be suspended below the ceiling it can be totally supported using the hanging holes in the tabs located at the four corners of the housing.

Step 3: Bring the power supply (110–120 volts) to the AIRVELOPE housing junction box.

Step 4: Before installation of the HEPA filter, turn the motor/blower ON and adjust the speed control to the full ON position to make sure the blower/motor is working properly.

CAUTION: DO NOT run the motor/blower more than two (2) minutes without the HEPA filter in place.

Step 5: Turn the motor/blower switch OFF and check the entire housing to make sure it is still securely mounted in place.

Step 6: Before removing the filter from the carton carefully read the Removal & Handling Instructions printed on the outside face of the carton.

Step 7: Carefully lift the filter into place in the housing making certain the filter is pushed all the way onto the knife edge for the proper seal. Rotate the four (4) filter retainers into place and hand tighten the hex nuts. Put the grille in place and secure with the four (4) Acorn nuts. The AIRVELOPE is now ready.

Operating Instructions

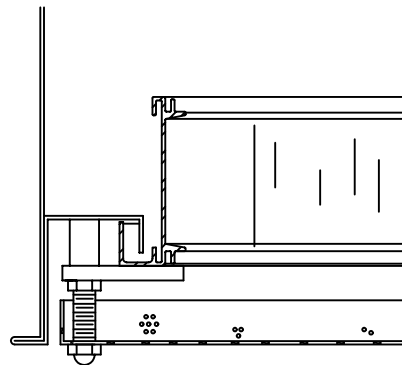
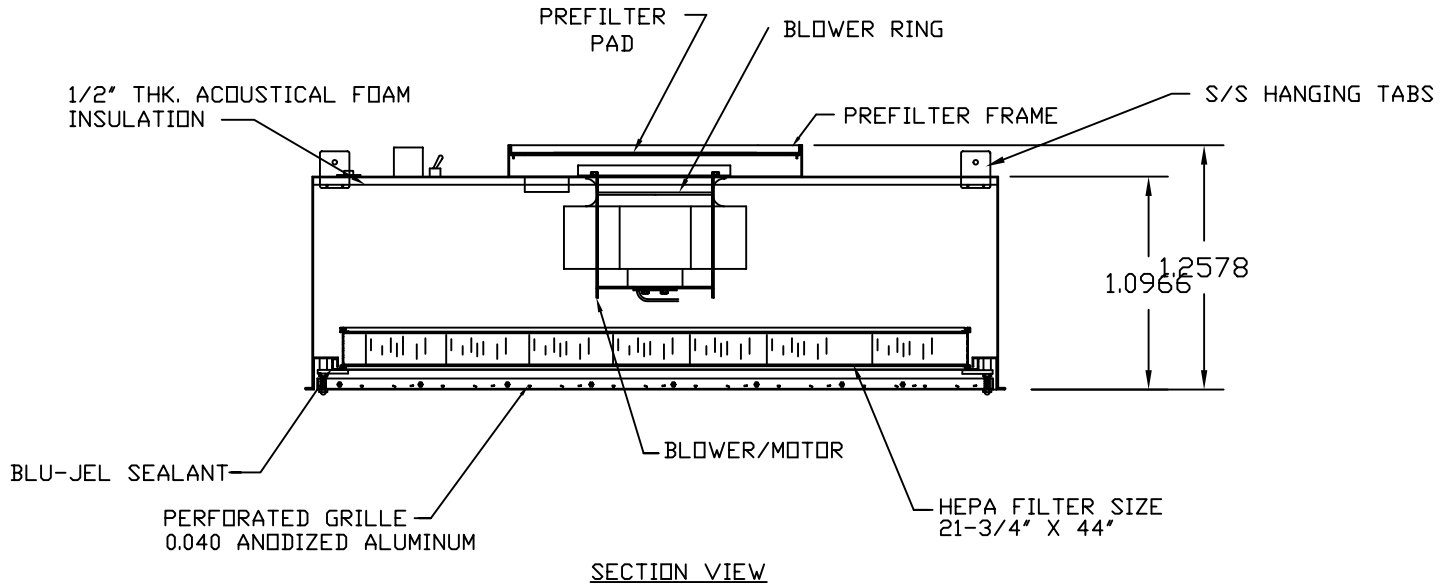
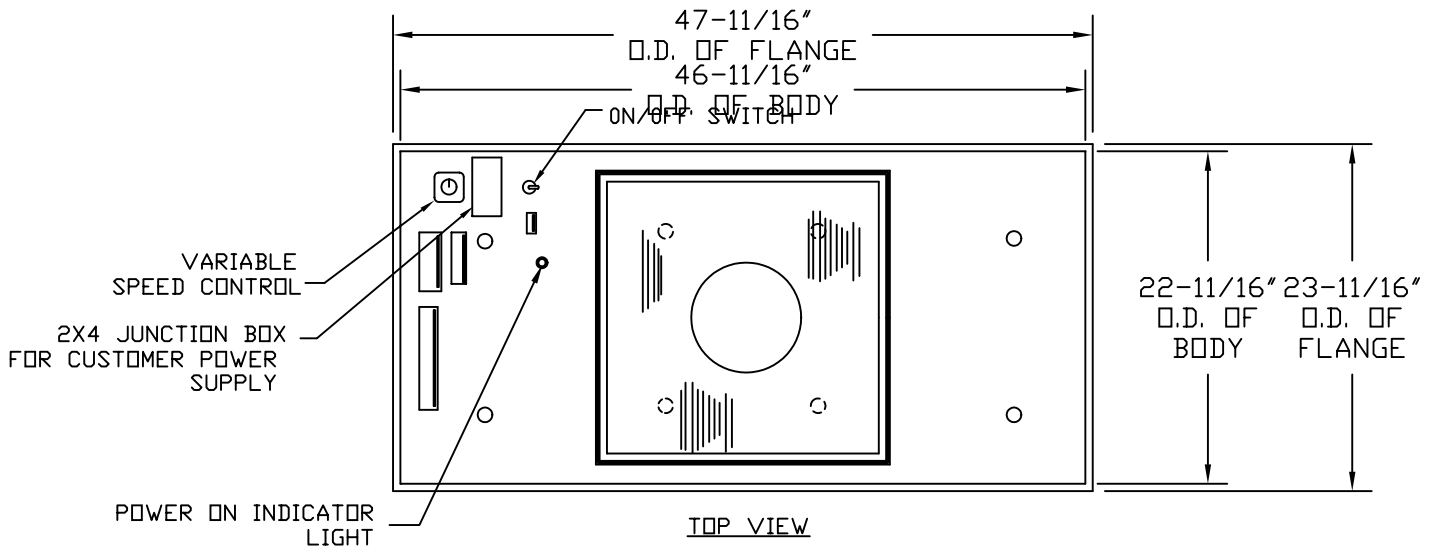
Step 8: Turn the ON/OFF switch to ON and adjust the Speed Control to the desired level. Flanders recommended airflow adjustment for the AIRVELOPE Model 39 is 90 FPM $\pm 20\%$.

NOTE: Low Speed Adjustment: A further adjustment can be made with the low speed adjustment screw if after setting the speed control on LOW the air velocity is still to high. With the speed control on LOW insert a small screwdriver into the slot near the speed control knob and turn counter-clockwise. This will adjust the speed control to the lowest possible setting.

Step 9: When the airflow drops from the recommended 90 FPM $\pm 20\%$, adjust the speed control higher to achieve the recommended airflow. When the speed control control adjustment is at full open and the airflow is below the recommended the prefilter should be cleaned or changed. After prefilter servicing the speed control should be adjusted for the recommended 90 FPM $\pm 20\%$.

Step 10: The above process should be repeated until the recommended airflow level cannot be met by cleaning or changing the prefilter. At this point the HEPA filter should be replaced.

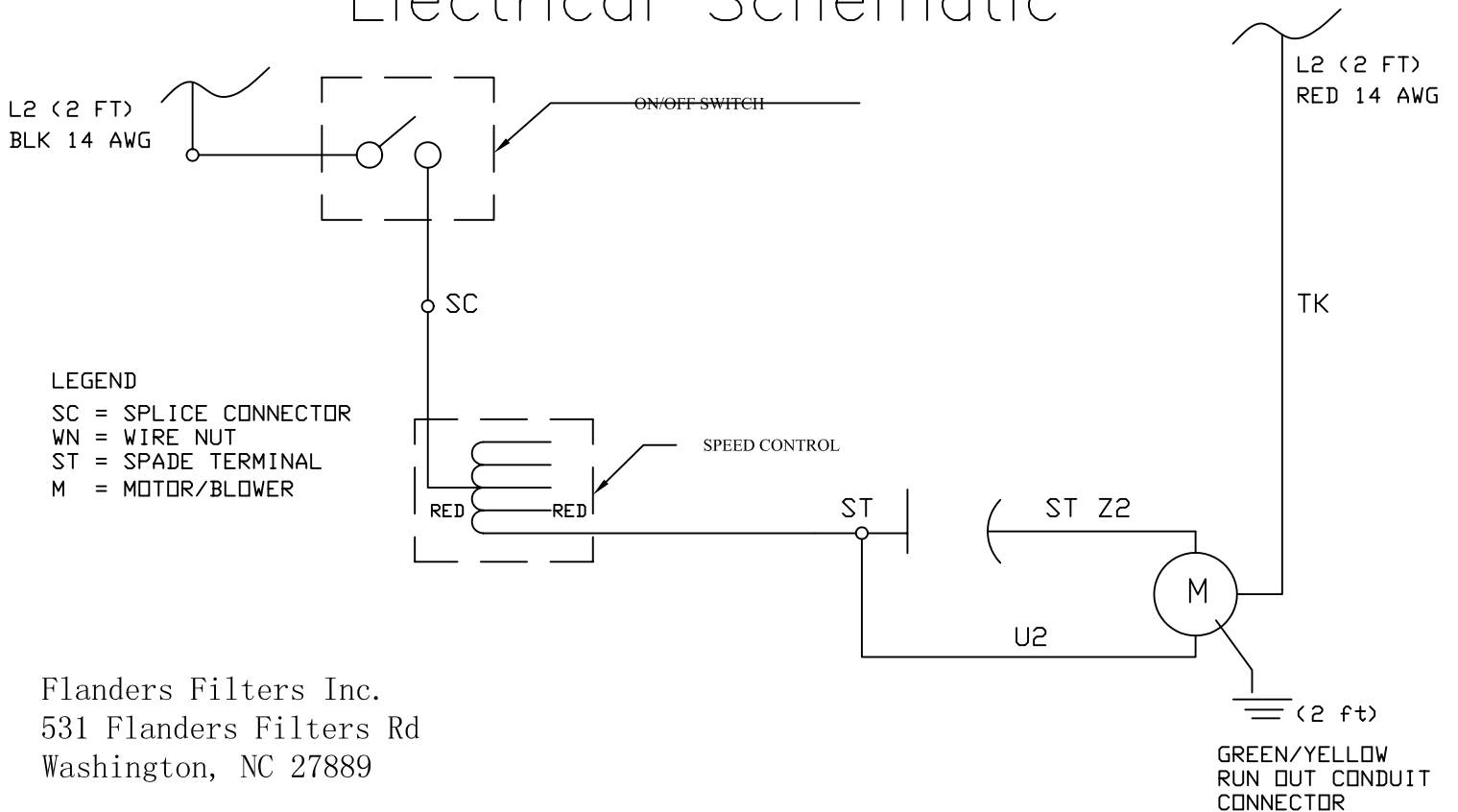
Step 11: Reverse the Filter Installation process to remove the HEPA filter (see Steps 5, 6, 7, and 8). Reset the speed control using the metho described in the Operating instructions for the desired airflow level.
(See Step 9.)



Spare Parts List

Quantity	Part No.	Description
1	F0304094	0-007-2-19-06-SU-52-00-E1386 2' x 4' 99.99% Efficient
1	F0405375	0-009-2-19-06-SU-52-00-E1386 2' x 4' 99.9995% Efficient
1	F0304150	0-007-2-19-06-SU-52-00-E1286 2' x 2' 99.99% Efficient
1	F0405554	0-009-2-19-06-SU-52-00-E1286 2' x 2' 99.9995% Efficient
1	02307002	Capacitor 20 MFD
1	02307008	On/Off Toggle Switch
1	02307008	On/Off Toggle Switch
4	02202300	3/8-16 UNC Acorn Nut
4	09100700	Filter Retainer
1	09130002	2x4 S/S Flush Grille
1	09130003	2x2 S/S Flush Grille
1	09130000	2x4 CRS Flush Grille (White)
1	09130001	2x2 CRS Flush Grille (White)

Electrical Schematic



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