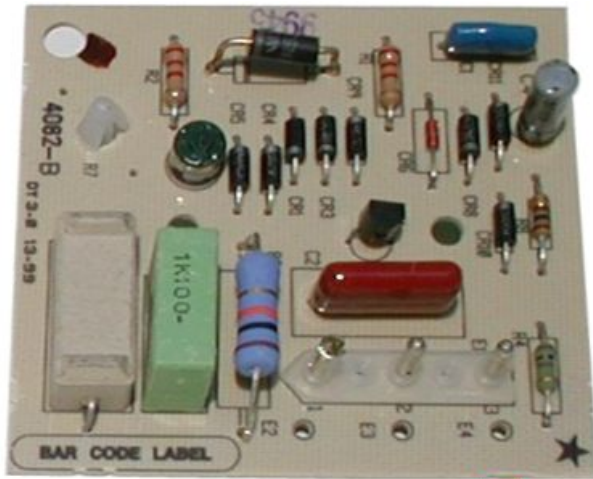
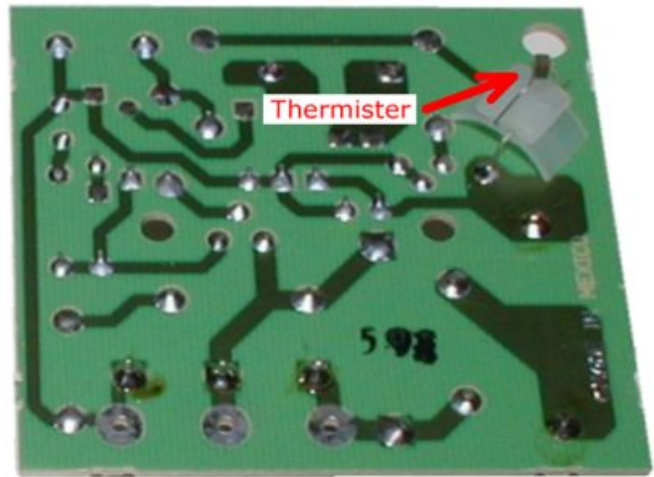


# Electro-Air Replacement Air Flow Sensor

This Air Flow Sensor (AFS) circuit board senses air flow and turns on the air cleaner. The AFS functionality is an ON-OFF switch that flips ON when air flow is present.



Top Side



Bottom Side

**F859-0380**  
**Air Flow Sensor**

Star Denotes  
 Compatibility



## Compatibility Warning:

Air flow sensors that are compatible with the new replacement power supply are identified by a star (\*) located in the corner (see photo above). If the unit being serviced is equipped with an airflow sensor and the star is not present in this location, replace the air flow sensor panel with field replacement part number F859-0380.

If replacing the power supply requires replacing the AFS, then see replacement kit F858-1002.

This warning is from the [Power supply replacement instructions](#) also see the [Air flow switch replacement instructions](#).

## Cross Reference:

Current P/N	Replaces these previous part numbers
F859-0380	F859-0235, F859-0239, F859-0255, F859-0274, F859-0292, F859-0376, F859-0378, F859-0379, F859-0382
F859-0381	F859-0184, F859-0224, F859-0234, F859-0250, F859-0256, F859-0292, F859-0393
F859-0382	F859-0372

## Dimensions:

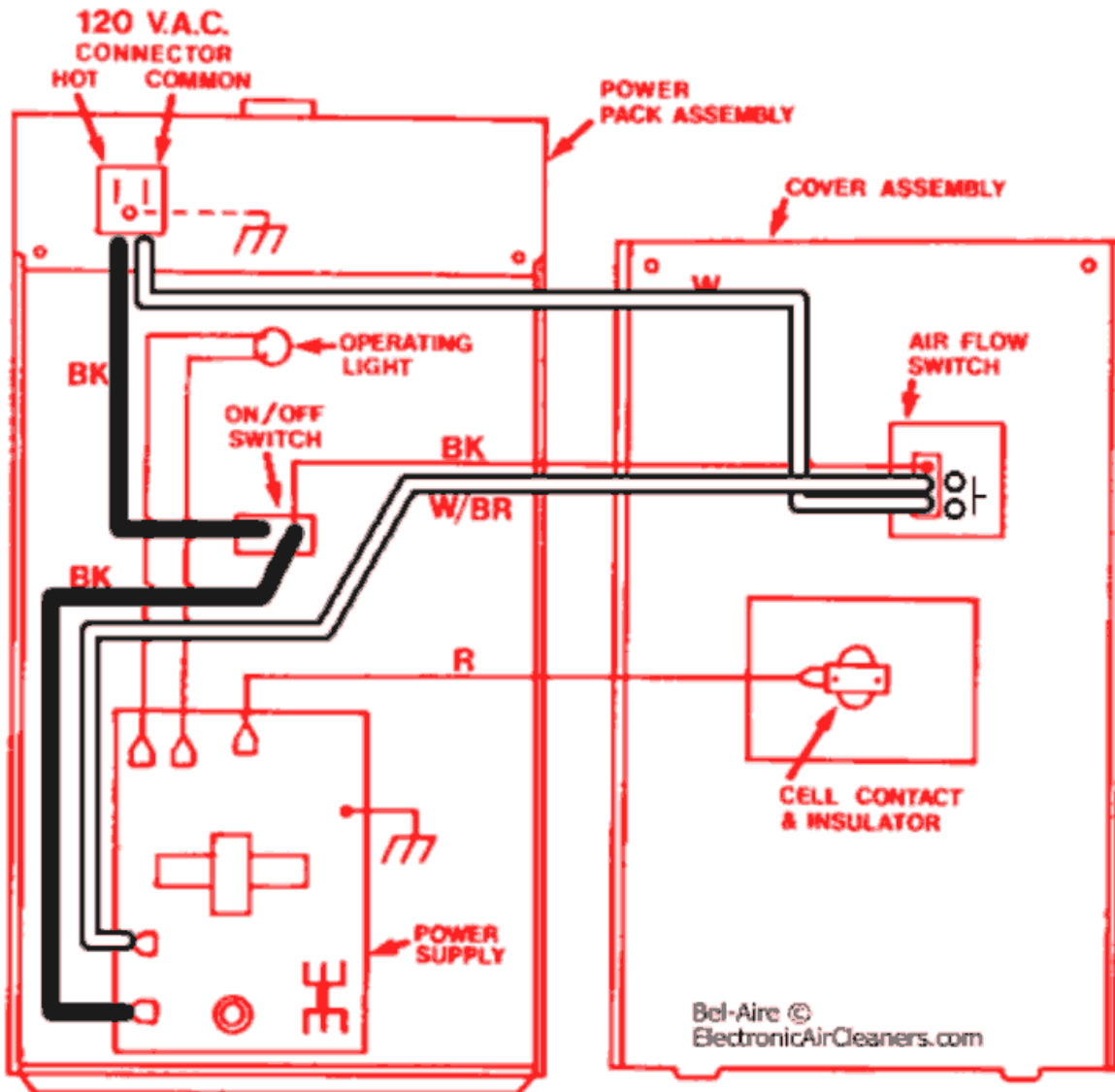
The F859-0380 circuit board measures 2-1/2 x 2-5/8 inches. Two mounting holes for #6 plastic screws spaced 1 1/4 inch.

## Electro-Air Replacement Air Flow Sensor

### Operation:

The AFS controls the power supply by opening and closing its internal switch that connects the white wire to the white/brown wire. As shown in the schematic below, the 120v that powers the power supply comes in at the 3 prong connector. The neutral (comon) line is wired from 3 prong connector to the AFS (white wire). Then the comon line leaves the AFS and connects to the power supply (white/brown wire).

The live (hot) 120v line is routed from the 3 prong connector through the on-off switch and to the power supply (black wire). The hot line is also wired to the AFS and along with the neutral line, the AFS obtains its power.



### Test:

The AFS has a thermister (shown in 1st photo) that heats up to several hundred degrees and senses when cooled by cooler air flow (30-120 degrees F). At power up, the AFS will turn on the unit even when air flow is not present but then shutdown after 10-15 seconds if no airflow persists.

At the AFS connector there should be a full-time 120v across the white and black wires. When blowing on the thermister, there should be 120v across black and white/brown wire and no voltage with no airflow. Inspect thermister for dust or broken wire.

## Electro-Air Replacement Air Flow Sensor

### Bypass:

This bypass procedure will route power direct to the power supply. You will be able to measure 120v at the power supply terminals with or without airflow. Disconnect the white modular connector removing the AFS from the circuit. Insert a jumper in modular connector, connecting the white wire to the white/brown wire, see photo below.

