



SafeSpeed™ DPS Pressure Interlock Installation & Operation Manual

Thank you for purchasing this SafeSpeed™ DPS Pressure Interlock to accompany your AirScape® Whole House Fan.

If operated without an adequate number of windows open, your whole house fan will begin to depressurize your home. This can “pull” unwanted odors into the living space, and backdraft combustion appliances. The SafeSpeed™ DPS pressure interlock can reduce the speed of, or shut down, your fan to prevent it from dangerously depressurizing your home.

Included in this package are: 5 ft. of wiring to connect the pressure sensor to your fan’s control board; 5 ft. of vinyl tubing to connect the pressure sensor to the living space; and, 25 ft. of vinyl tubing to connect the pressure sensor to the outdoors.

INSTALLATION & SETUP

The SafeSpeed pressure sensor (shown below in Figure 1) is typically installed in the attic close to the whole house fan. **To function properly, the sensor must be installed in a vertical orientation with the tubing connections pointed downwards;** use wood screws (not provided) at its pilot holes to mount it to a joist.

Please Note: the length of wiring provided for connecting the sensor to the fan’s control board is 5 ft. Keep this length in mind when choosing a location for the sensor.

Figure 1



As shown in Figure 1, the sensor has two tubing connections. Connection P1 is for the tubing run to the outdoors. Connection P2 is for the tubing run into the indoors. Two lengths of clear vinyl tubing have been provided to make these connections; one is 5 ft. long, and the other is 25 ft. long. The outer diameter of each is 5/16”.

To make the indoor connection, drill a small hole in the wood framing between the whole house between the grille. Insert the shorter length of tubing into the hole and seal the seam between around the tube with caulking to prevent leaks.

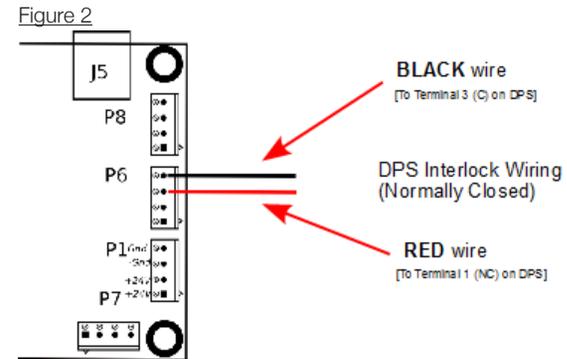
To make the outdoor connection, run the longer length of tubing to a vent and push the tube through it so that the open end is outdoors.

INSTALLATION & SETUP, cont.

The Safespeed pressure sensor is EXTREMELY sensitive and will very easily produce inaccurate readings if not installed with high precision. To minimize the possibility of inaccurate readings, you MUST follow the following guidelines below installing the sensor and tubing:

- Mount the sensor in a vertical orientation with the tubing connections pointed downwards.
- The tubing should not have sharp bends or kinks in it once installed.
- Leaky tubes or loose tube connections will result in inaccurate readings.
- Do NOT locate outdoor tube opening in an area exposed to high winds.
- Avoid locating the sensor in an area exposed to excessive vibration or electrical noise.

Once the tubing is installed, make the wiring connections from the pressure sensor to your fan’s control box as shown in Figure 2 below.



First, unplug your whole house fan from the outlet supplying it with electricity. Next, use a flat-head screwdriver or ¼” socket to loosen the four screws on the control box’s cover plate, and slide the the plate up and off of the box to expose the control board.

Connect the BLACK wire to terminal P6-4 on the control board and connect the RED wire to terminal P6-3. These wires will arrive already connected to the appropriate terminals on the pressure sensor. For your reference, Figure 3 at the top of the next page shows that the black wire originates at terminal 3 on the sensor and the red wire at terminal 1.

DIP switch 5 on the fan’s control board must be set to the OFF (down) position for the Safespeed interlock to function.

At right, Figure 4 shows DIP switches 4 and 5 in the ON position (the standard factory setting).

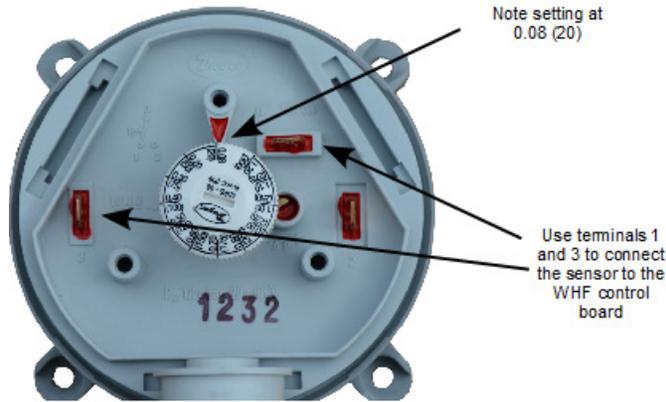
After resetting the DIP switch, you will also need to reset your fan’s controls. First, reconnect the fan and controls to power. Then, locate button SW3 on the left side of the control board and depress it for 1 second—LED lights on the controller will turn off to indicate the reset is in progress.

Finish by replacing the cover plate.

Figure 4



Figure 3



ACCESS & OPERATION

Safespeed Pressure Interlock Operation

Whenever your fan is operating, the Safespeed pressure sensor monitors the relative indoor-outdoor pressure. If, relative to the outside, the indoor air pressure drops below the interlock threshold, the fan's controls will begin to reduce its speed. The fan's speed will be reduced by 1 speed setting every 30 seconds until the relative indoor pressure is once again above the interlock threshold.

If the fan reaches its minimum speed setting, and the relative indoor pressure is still below the interlock threshold, Safespeed will turn the fan off entirely. The fan will not turn back on until a new start command is issued through any of its controls (wall switch, remote, etc.).

If the fan's speed is reduced, or is powered off, by the Safespeed sensor, its network control interface will display a "Reduced by Pressure Controls" message.

The Safespeed pressure sensor is EXTREMELY sensitive and will very easily produce inaccurate readings if not installed with high precision. Since every home and every installation is different, it may also require some adjustment for reliable operation.

If your Safespeed is too frequently reducing the fan's speed or preventing it from operating entirely, please try some of these troubleshooting suggestions before contacting us for technical support:

- Check that there is an adequate amount of open windows in the living space and net free ventilation from the attic.
- Confirm the correct orientation of the pressure sensor—perfectly vertical with the tube connection pointed downwards.
- Confirm the sensor tubes are firmly connect to the pressure sensor, are free of leaks and kinks, and that the outdoor tube is not exposed to wind.
- As a last resort, remove the pressure sensor's faceplate and adjust the interlock threshold upwards slightly to 0.20 (50) (see Figure 3 above).

WARRANTY

Hardware

AirScape warrants the original end user ("Customer") that new AirScape branded controls will be free from defects in workmanship and materials, under normal use, for one (1) year from the original purchase date.

Software

AirScape warrants to Customer that the AirScape Controller software will perform in substantial conformance to its program specifications for a period of one (1) year from the date of the original purchase.

Failure to Connect Network Controls Voids Warranty

Because the network control interface must be accessible for providing SafeSpeed technical support, you must connect your whole house fan's controls to your home's local area network to receive SafeSpeed technical and warranty support. This warranty is void if your whole house fan is not connected to your local area network.

Exclusions

This warranty excludes: 1) physical damage to the surface of the product, including cracks or scratches on the LCD screen or outside casing; 2) damage caused by misuse, neglect, improper installation, unauthorized attempts to open, repair, or modify the product, or any other cause beyond the range of intended use; 3) damage caused by accident, fire, power changes, other hazard, or Acts of God; or, 4) use of the product with any device if such device causes the problem.

Exclusive Remedies

Should a covered defect occur during the warranty period and Customer notifies AirScape, Customer's sole and exclusive remedy will be, at AirScape's sole option and expense, to repair or replace the product. Replacement products or parts may be new or reconditioned or a comparable version of the defective item. AirScape warrants any replaced product or part for a period of ninety (90) days from shipment, or through the end of the original warranty, whichever is longer.

Obtaining Warranty Service

Customer must contact and return product to AirScape, Product dealer or installer within the applicable warranty period to obtain warranty service. Dated proof of original purchase will be required. AirScape will not be responsible for Customer's memory data contained in, stored on, or integrated with any products returned to AirScape for repair, whether under warranty or not.

Warranty Exclusive

The foregoing warranties and remedies are exclusive and in lieu of all other Warranties, express or implied, including warranties of merchantability, Fitness for a particular purpose, correspondence with description, and Non-infringement, all of which are expressly disclaimed by AirScape and its suppliers.

Disclaimer

Neither AirScape nor its suppliers shall be liable for incidental, consequential, indirect, special, or punitive damages of any kind, or financial loss arising out of or in connection with the sale or use of this product, whether based in contract, Tort (including negligence) or any other theory, even if AirScape has been advised of the possibility of such damages AirScape's entire liability shall be limited to replacement or repair of the product.

For all technical or warranty-related issues, or for more information on AirScape products, please contact us by phone at 1.866.448.4187 or by email at experts@airscapefans.com.