

Introducing the SmartExhaust™

BATH FAN/LIGHT SWITCH/DELAY TIMER/VENTILATION CONTROLLER

Take Control of the Bathroom Fan: **Light Switch, Bath Fan Switch, Fan Delay Timer & Ventilation Controller ... All in a Single Switch!**

- ◆ Make standard bath fans ASHRAE 62.2 compliant*
- ◆ Microprocessor technology provides precise ventilation times.
- ◆ Fan runs every hour for set ventilation, less any manual and delay operation.
- ◆ Excess manual and/or delay operation is subtracted from next hours ventilation time.
- ◆ Great for - Meeting ventilation codes, Reducing Mold, Mildew & Pollutants, Saving energy and you money!
- ◆ Enables use of energy efficient CFLs in the bathroom.

The new SmartExhaust™, from the same people who brought you the AirCycler line of ventilation controllers, introduces a simple, smart, flexible and economic solution for exhaust ventilation requirements.

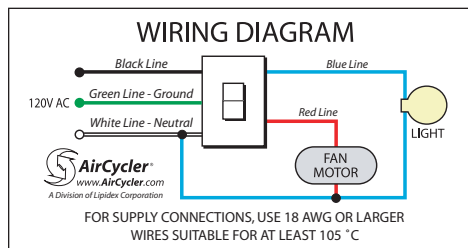
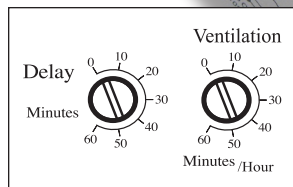
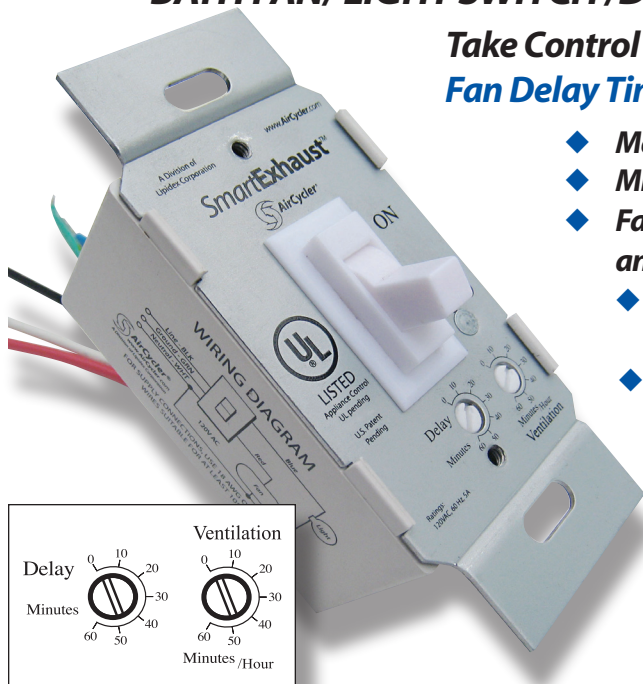
Set the Ventilation & delay times from 0- 60 minutes.

The SmartExhaust™ is designed as a replacement for the bathroom fan and light switch. By using a microprocessor to monitor and control fan operation, a precise amount of ventilation can be provided.

Switch On: Light & Fan turn on... Switch Off: Light turns off, Fan remains on for set delay time. Off-Off fan goes off.

There are only two settings on the SmartExhaust™ switch - **Ventilation** and **Delay**. Ventilation is the minutes per hour that you want the fan to operate. Delay is the number of minutes you want the fan to run after the bathroom light has been turned off. The Delay time provides additional run time of the fan to complete ventilating the bathroom after use. The SmartExhaust™ is so smart, you can tell it you don't need the fan to run when you leave the bathroom. When you turn off the light, turn it back on then back off again within a few seconds it tells the SmartExhaust™ you don't want the fan to continue running.

Since you are substituting an existing switch, or maybe even two, there are no additional labor costs to the SmartExhaust™ installation. With the light and fan being the same switch, the ventilation strategy can't be defeated.



SmartExhaust™ Specs:

Light: 450 Watts @ 120 VAC (blue wire)
 Fan: 150 Watts @ 120 VAC (red wire)
 Operation: 120VAC +- 10%
 50/60 hz



AirCycler a Division of Lipdex Corporation
 411 Plain Street, Marshfield, MA 02050

For more information call:
 1-877-FAN-CONTROL
 (1-877-326-2668)
 www.aircycler.com

It's simple, it's smart, it's easy...
The Most Economical Ventilation Solution!

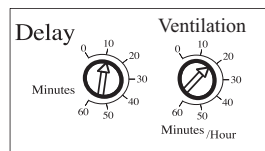
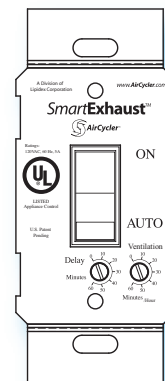
*When used with compliant fan and flow rates.
 Patent Pending. Cover plate not included. Use any standard switch plate.

SmartExhaust™ Instruction & Operation Manual

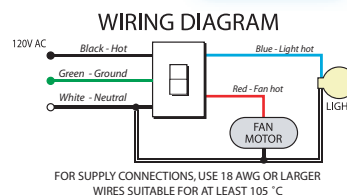
- 1) Do not connect this device to aluminum wire. Use with copper or copper clad wire only.
- 2) TURN POWER OFF at circuit breaker or fuse panel.
- 3) Remove cover plate and existing switch from wall box if there is one already installed.
- 4) Connect the wires in the wall box using the supplied wire nuts. Wires must have $\frac{3}{4}$ inch of bare copper exposed. Twist wires together tightly with supplied wire nuts. Make sure no bare copper is exposed. Secure connections with electrical tape. If a light is not connected, be sure to attach a wire nut to unused blue wire and secure with electrical tape.
- 5) Mount **SmartExhaust™** switch in to wall box with supplied mounting screws.
- 6) Set desired **DELAY** time by turning dial to desired minutes.
- 7) Set desired **VENTILATION** time by turning dial to desired minutes per hour.
- 8) Turn on power at circuit breaker or fuse box.

Operating instructions:

- Move toggle switch up to turn on fan and light.
- Move toggle switch down to turn off light. Fan will run for set **DELAY** time.
- To cancel **DELAY** time, move toggle up again for at least 1 second then down again.
- Fan will shut off, canceling set delay time.
- **DELAY** will not activate if light/fan has not been on for at least 10 seconds.
- Fan will automatically come on once per hour for set **VENTILATION**



Example: 10 minute delay,
20 minutes per hour ventilation



FOR SUPPLY CONNECTIONS, USE 18 AWG OR LARGER WIRES SUITABLE FOR AT LEAST 105 °C

time.

Any manual fan operation and **DELAY** operation will be subtracted from **VENTILATION** time for that hour. If manual fan operation and **DELAY** operation exceed set **VENTILATION** time, the excess time will be subtracted from the next hours **VENTILATION** time.

The **SmartExhaust™** has a small microprocessor in it. The microprocessor reads the two settings dials. If for example the **VENTILATION** dial is set to 20 minutes/hour, the microprocessor subtracts 20 minutes from 60 minutes and determines it needs to come on 40 minutes into the hour and run for the remaining 20 minutes of that hour.

Now if the **DELAY** dial is set to 10 minutes and someone uses the bathroom for 4 minutes, the microprocessor will keep track of the 4 minutes of use. Then when the person leaves after 4 minutes and turns the light switch off, the micro will keep the fan on for 10 more minutes of the **DELAY** setting. This will add up to 14 minutes of total fan run time for that hour. The micro will now subtract the 14 minutes of manual and delay time from the required 20 minutes of **VENTILATION** time and come up with 6 minutes needed to run at the end of the hour. So 54 minutes into the hour the fan will come on and run for 6 more minutes. Resulting in 20 minutes of total run time that hour.

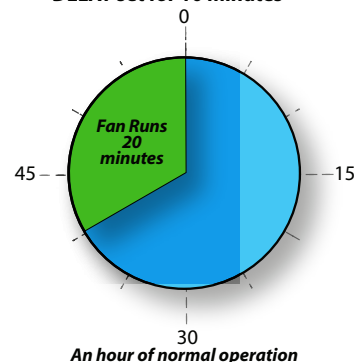
What if manual and DELAY time exceeds VENTILATION time? The micro will calculate the excess ventilation time and subtract it from the total **VENTILATION** time for the next hour.

What if you don't want the DELAY time to run after you use the bathroom? When the person leaves the bathroom and shuts off the light, if they turn it back on with in 3 seconds and then back off with in 3 more seconds, the micro will kill the **DELAY** time for that use.

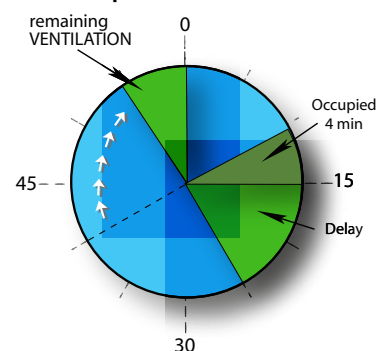
What if you're only in the bathroom for 5 seconds? You have to have the switch on for 10 full seconds before the micro will start counting time and enable the **DELAY** function. If you turn the switch back off with in 10 seconds, the fan shuts off and no time is counted.

Example:

**VENTILATION set for 20 min/hr
DELAY set for 10 minutes**



This hour, the bathroom is occupied for 4 minutes:



Occupied for 4 min then a set DELAY of 10 minutes.
Now we only need 6 more minutes to complete
20 minute set VENTILATION time.

For more information call:

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www.aircycler.com

For purchasing information, contact: