

Residential Ventilation Issues

by Dara Bowser & Bob Allison

Labels on Switches:

How can such a small thing be such a BIG Problem?

9.32.3.4.(4) The switches required in Sentences (2) and (3) shall be centrally located in the *dwelling unit* and shall be identified with the words VENTILATION FAN. 9.32.3.6.(5) The switch required in sentence (4) shall be identified by the words CIRCULATION FAN.

Of the ventilation requirements which were put in place in 1993, This particular sentence has proven to be one of the most difficult to enforce. Getting the correct location has been relatively easy, however getting one and all to apply a reasonable and permanent label has proven difficult indeed. Many Building officials can recount the scribbled paper labels, ugly labels, magic marker attempts and labels with glue that lands them on the floor. To make matters worse, the new style of "Decora" switch has very little space on the plate that can be used to print information.

The "Circulation Fan" labelling requirement is even more difficult. There is usually difficulty in getting the heating installer to provide a completely separate switch from the one on the thermostat which operates the fan. If the thermostat switch is accepted, the labelling that is standard on the thermostat is usually something like "FAN/AUTO/ON", which does very little to explain the use of the furnace blower to provide air movement within the house and subsequent distribution of ventilation air to critical rooms such as sleeping areas.

An appropriately labelled switch can make a significant difference to the new homeowner's eventual understanding of the ventilation system

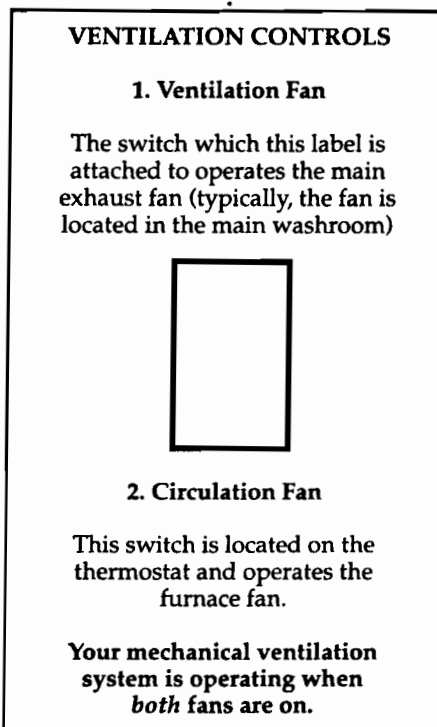
and the proper operation thereof. Certainly, when explaining the need to operate the principal ventilation fan to a homeowner over the phone, it is very helpful if "the switch" can be easily identified.

Previously articles and a study by the Ministry of Housing and ONHWP have dealt with the desirability of continuous or extended operation of the principal exhaust fan, and the problem which is occurring in "exhaust only" homes where the principal fan is not operated this way. Another study of HRV-based systems by CMHC found that the furnace fan was most often not used for circulation of air and the homeowners had a very poor understanding of it's use in that respect. A permanent informative label may be able to make a significant difference here.

As of this writing, we know of three Municipalities which have taken the step of providing a label

which is applied to the principal exhaust fan switch. The two labels shown in the illustrations are used by the City of Cambridge. The larger label is used on the traditional type of switch plate and the smaller label on "Decora" type switches (on the toggle). In Cambridge, the labels are applied by the inspector when the system has been accepted.

The Municipalities of Markham and Windsor use similar labels. Markham also uses a label which is applied to the heating system return air duct. This large, red-type label specifically identifies the houses type (I, II, III or IV) and admonishes the homeowner to apply for a permit if any



additional combustion appliances are installed.

At the "Cracker-barrel" session held during the recent OBOA Conference in London, this topic was popular and cited by several participants as one which could stand much improvement and which might yield significant positive results. Some participants also suggested that a common wording would be useful so that individual Municipalities would not have the "re-invent the wheel". Other participants suggested that joint purchasing should also be considered. This would allow smaller Municipalities to have access to good quality labels at reasonable prices without having to commit to large quantities.

Summary: Informative labels applied to the *Principal Exhaust Fan Switch* can be a significant improvement to the appropriate use and understanding of the ventilation system by new home occupants. They can be supplied by the Municipality as part of its enforcement process and some

Municipalities have begun this with success. There appears to be a need to develop uniform wording and it would be desirable for small Municipalities to have access to a joint purchasing program.

1. Ventilation Fan

The switch which this label is attached to operates the main exhaust fan. (Typically, the fan is located in the main washroom.)

2. Circulation Fan

This switch is located on the Thermostat and operates the furnace fan.

Your ventilation system is operating when both fans are on.

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