Fact Sheet
Zoning

What is Zoning ?

A zone damper installed in your ductwork allows you close off areas of your home which may not be in use or areas which you might choose not to air condition. Zones are switched on or off from your control (see below)

Actron Air have a standard 4 zone or an optional 8 zone system.

Why Zone ?

Zoning costs money—so we should consider—if I spend money what will I get in return.

- You'll save money
  - You can switch off areas of your home that aren't being used—only air condition areas that are in use.
  - Your air conditioning unit could be smaller and therefore cheaper if you use a changeover system—eg day area / night area
- You'll have flexibility
  - Air can be redirected to a high use area by closing off other areas
  - You can achieve a more concentrated and comfortable zone under periods of high load—again by closing off some unused areas
  - You can isolate an area which doesn't have a significant load—eg an east facing family room in winter might be comfortable due to natural sun infiltration, you might not want to heat this room whilst the remainder of the house still requires heating.
  - Zoning bedrooms is also a good idea for winter operation—we usually don't need to heat bedrooms to the same level as living areas, allowing the system to remove the chill from the air then shut off is a common practice. Cooling operation is however a different situation..... See next section

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Zoning can Increase your Operating cost !

Zoning should apply generally to those areas of your home which will usually not be in use, guest bedrooms or formal lounge areas not generally used every day.

It can often become false economy when areas used daily are switched off until needed. An example of this might be the kids bedrooms, they will be used daily. If switched off and allowed to heat up through the day, particularly if they have a high load (western aspect), you will be asking the system to go back to work at the hottest part of the day to regain comfort conditions, the result may well be that in order to achieve this the remainder of the house is over cooled and conditions in the kids rooms might not be ideal—your operating cost will be higher when you do this.

So the question is posed with the above example—because the kids rooms are used every day is it more economical to not have a zone or leave the zone on than to switch the rooms off and allow heat to build up, then regain control later in the day —— simple YES.

An important aspect to consider here is, a certain amount of heat is going to enter your home or an individual room during a given day—that doesn't change. The air conditioning system is designed to provide sufficient capacity to remove that heat—so it basically doesn't matter if the unit is asked to do this work in 2hrs or 10 hrs, it still has to do the same work. It will cost more to do that work at the hottest part of the day than it would if allowed to progressively do it through the day.

Zoning can give you flexibility !

You should zone if system flexibility is what you want, isolate areas of your home that aren't in use all the time. Manual selective zoning also allows you to a degree control temperature, a good example of this as mentioned earlier is to isolate a sun filled family area in winter whilst still heating the remainder of your home, or switching bedroom area on only enough to remove the chill during winter. After all using the bedding you already own cost nothing.

In other cases clients home usage changes dramatically between the usual working week and weekends, zoning offer you the flexibility to tailor your system for your specific needs when ever you need.

Zoning with ESP and ESP Plus is the Ultimate !

With Actron Air's ESP and particularly ESP Plus with the added feature of a real variable air function the ultimate zoning capability is at your finger tips. In late 2007 an even more innovative solution will be released by Actron to further complement ESP Plus.

The ESP product range designed and manufactured by Actron Air allows the most sophisticated, integrated zoning and part load operation ever seen in the air conditioning industry. Your system can meet the load of your whole house, or you may choose just one room.

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