What is a zone control system?

The patented Zoned Thermal Equalizer, composed of a control unit, multiple thermostats, and a damper plenum, converts an ordinary heating and air conditioning system into an intelligent comfort control system for two-story and single-story homes. Two or more zones are created – for example, upstairs and downstairs or living areas and sleeping areas – then temperatures are controlled with a thermostat in each zone.

How does it work?

With the ZTE, you don’t need two systems to focus heating or cooling power to a specific area of your house. You can heat the downstairs in winter or cool the upstairs in summer with a single system. Each zone has its own thermostat that you can set to the desired temperature. The ZTE control unit translates your settings into the appropriate signals for your heating and air conditioning system. Warm air can be redirected from the top of the house to the bottom, or one zone can call for cooling while the other zone calls for heating at the same time. In this case, the ZTE control unit provides heating first, then automatically switches to cooling in the other zone after the heating call is satisfied. This maximizes the efficiency and capacity of your HVAC unit.

What is the Thermal Equalizer feature?

Villara’s patented thermal equalizer minimizes heat stratification, the uncomfortable heat build-up that occurs in two-story homes when heat rises to the second floor (and leaves the first floor cold). Heat stratification is especially aggravating in the seasons when you heat your home. The more you try to warm the downstairs, the more the heat rises. You never get warm enough downstairs, yet upstairs rooms can be sweltering. The thermal equalizer feature collects already warmed air from upstairs and moves it downstairs on a timing cycle. During this cycle, the furnace is turned off but the fan keeps operating to circulate warm air.

ZTE Advantages

- Lower initial cost than two separate systems
- Separate temperature control for each zone for more comfort
- Maximization of overall system capacity
- Improvement in temperature differential between floors by up to 60%
- Energy savings of up to 17% with the Thermal Equalizer feature
- Fully automatic operation

Is the ZTE easy to operate?

With the ZTE, you simply set the thermostat in each zone to the desired mode (HEAT, COOL, or OFF) and the desired temperature, then relax and enjoy. The ZTE does the rest automatically – giving you a more comfortable home and energy savings too! Your ZTE electronic thermostat may even control additional HVAC options, like a SmartVent!

Make sure your new home is equipped with the Zoned Thermal Equalizer from Villara. Talk to your builder for more information.
**Product Specifications**

**Zone Control**
- Uses two or more electronic thermostats
- Zones can call for heating or cooling anytime
- Heat call has priority over cooling
- Fully interlocked system prevents simultaneous heat and cool call
- Built-in short cycle compressor protection
- Built-in damper delay on heat cycle shutoff
- Compatible with SmartVent option

**Thermal Equalizer Control**
- Automatic control for temperature equalizing
- Field adjustable for custom applications
- 100% solid state electronic system

**HVAC System Requirements**
- Works with industry standard HVAC systems
- ZTE controller wires to thermostats

**Easy to Install**
- Compact size for easy installation
- Controller mounts on HVAC system
- Simple, familiar direct stat-to-controller furnace wiring
- Easy-to-wire terminal strips
- Safe low-voltage controller
- Compatible with two-stage heat & cooling system

**Dampers**
- One 24VAC electrically-operated damper per zone
- Dampers are fail safe normally open types
- 24VAC – No additional transformer required for typical installations

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**Zoned Thermal Equalizer**

Comfort where you need it!

Would you like to be comfortable in every room of your home, all year round.....without being too hot in one room or too cold in another?

Villara’s Zoned Thermal Equalizer (ZTE) can help by creating multiple zones of heating or cooling to better control the temperature in all rooms in your home. This patented system reduces hot and cold spots and, at the same time, makes your heating and air conditioning system more efficient, reducing your utility bills. Most importantly, you can use the ZTE like a light switch to “turn off” zones of the house that don’t need conditioning, thereby saving more energy.

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"I am pleased you talked me into adding the Zoned Thermal Equalizer to my existing heating and air conditioning system. I can control the temperature to the degree now, downstairs or up. The thermostats are amazing. I ask for 68 degrees, I get 68 degrees. I can’t thank you enough. The changes have improved my lifestyle 100% comfort-wise.”

Stan Atkinson
Homeowner, Sacramento CA