

### Model MZS4

- ❑ **NEW Color Coded Push-In Wiring Blocks**
- ❑ Uses Any Four Wire Thermostat
- ❑ Single Stage, Two-Stage and Heat Pump Compatible
- ❑ Four Zones
- ❑ Expandable to any number of Zones
- ❑ Leaving Air Sensor for Capacity Protection
- ❑ Staging by Time or by Number of Zones Calling
- ❑ Intelligent Changeover Timing
- ❑ Indicator Lights for System Operation

The MasterZone™ Zoning System (MZS) Panel is a 2, 3 or 4 zone control panel that is capable of controlling single stage, two stage and heat pump systems. This multi-function board uses any 4-wire thermostat. Two stage and heat pump thermostats are NOT required, however Heat Pump thermostats can be used to remotely control the Emergency Heat.

The MZS panel is the most cost effective and versatile zone controller on the market today. Using surface mount technology, its compact size is full of features not found in any other zone control panel.

The MZS provides the basic function of zoning by being the central control panel that all zone thermostats, zone damper motors and HVAC Equipment wire into. A separate 24 Volt, 40VA Transformer powers the panel and a separate remote Leaving Air Sensor is wired to the panel to provide protection and capacity control of the HVAC Equipment.

When any zone thermostat makes a call, for either Cooling or Heating, the MZS panel will take the first call, open the damper to that zone, if not already open, close the dampers to the zones that are not calling for the same mode and activate the appropriate heating or cooling on the HVAC Unit. If other zones call for the same mode, the MZS panel will allow these calls and open these zone dampers until all zones are satisfied, unless there are calls from other zones for the opposite mode.

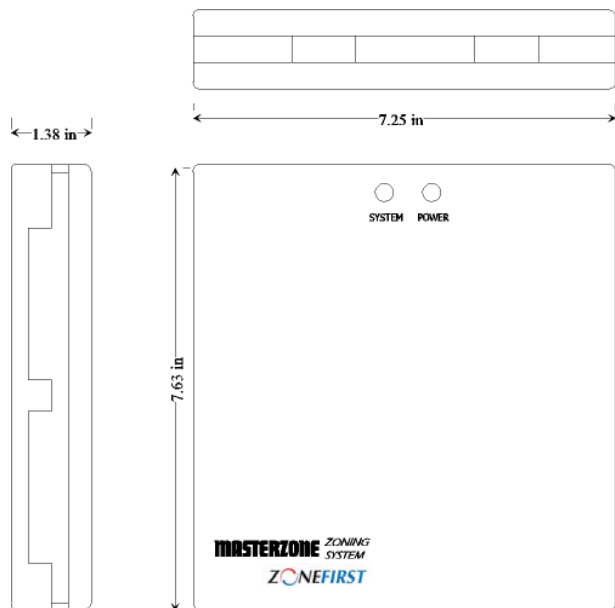
When there are opposing calls the MZS panel has a patent pending design of intelligent changeover that can allow those zones to satisfy or eventually switch over to the opposite mode if the calls for the opposite mode based on the number of those zones calling.

The MZS panel also can control two-stage and heat pump systems using single stage thermostats. This substantially reduces the overall cost of the zone system by using less expensive conventional single stage thermostats. The MZS has a built-in timer that once a call is made the timer begins and if the demand is not satisfied within that period of time the second stage will be activated until the call is satisfied. The second stage can also be activated based on the number of zones calling in place of the timer.

The panel also has simple Light Emitting Diodes (LED) indicators to easily monitor the system status. Two LEDs can be seen through the panel's front cover. These monitor the basic system operation. See the chart on Figure 1 for the various indications. By removing the cover, each zone has an indicator light to show when it is a calling zone. Using the zone indicator shows which zone(s) are calling and the damper(s) to the zones that are to be OPEN.



#### Dimensional Drawing



#### Panel Specifications

Construction - ABS plastic

Dimensions - 7-5/8" x 7-1/4" x 1-3/8"

Voltage - 24 Volts AC, 50/60 Hz

Temperature Rating - 0°F to 120°F Operating, -20°F to 140°F Storage

Humidity - 5% to 95% Non-Condensing

Connection: Screwless Push-in terminal blocks

# WIRING DIAGRAM

