

The Thermal Equalizer control is a solid-state circuit board. During the heating operation, the ZTE control will monitor the time the furnace operates. Usually after 15-20 minutes of operation, the ZTE will automatically switch over to the Equalizer mode for approximately 6-8 minutes. This will circulate the warm air from the upstairs to the downstairs area. The ZTE control will continue the sequencing of the gas valve and the circulation mode until the thermostat is satisfied.

SMARTVENT OPERATION

The SmartVent monitors the indoor and outdoor temperatures and determines when the outdoor temperature is lower than the indoor temperature by a differential of approximately 6° (adjustable from 2° to 10°). The system also monitors the indoor SmartVent thermostat to see if it's calling for venting.



When both the outdoor temperature differential and indoor vent thermostat are calling for venting, the controller turns on the system's fan and opens an outdoor air supply damper so fresh air can circulate throughout your home.

The system also has a manual mode. Turning the system switch to MANUAL VENT on the SmartVent is independent of the heat or cool calls from the zone thermostats. If the SmartVent system switch is in the AUTO VENT position, the SmartVent control will switch the HVAC system to the outside air source anytime the vent conditions are proper, even during heat or cooling operation.

In some cases you want this. But if you don't want venting to occur during heating operation, you must ensure the SmartVent system is properly set. Either the vent system switch should be set to the OFF position or the vent thermostat properly set above the heat settings or below the cool settings of the HVAC system thermostat.

SmartVent modes of operation

The system switch, located on the vent thermostat or within the TS40 thermostat, controls the operation of the SmartVent system. The modes of operation are:

System Switch OFF: The SmartVent system won't function under any condition.

System Switch AUTO: The SmartVent system will come on when the outside temperature is lower than the inside temperature by the differential set point (factory set at 6°) and the inside temperature is above the vent thermostat set point.

System Switch ON: This is a manual override for the SmartVent. Fresh air venting will be **on continuously** until the system switch is returned to OFF or AUTO.

SmartVent recommended thermostat settings

The following settings are recommended for optimum efficiency, comfort, and fresh air when setting your thermostat for heating, cooling, or SmartVent operation.

Summer Cooling Season	Occupied	Unoccupied
Cooling	78° F	80° – 82° F
SmartVent	68° – 70° F	68° – 70° F

Winter Heating Season	Occupied	Unoccupied
Heating	70° F	60° – 65° F
SmartVent	75° – 78° F or OFF	75° – 78° F or OFF

SmartVent Filter

The SmartVent filter is located inside the return air grill and behind the SmartVent filter door. It slides vertically in and out of place. There are two thumb screws that must be turned 180° for the filter door to open. Turn the screws and open the panel to slide the filter out. Replace this filter (or wash if you have a permanent filter) every 30 to 60 days.



SmartVent access panel opened.



Turning thumb screws 180° to open filter door.



The filter slides vertically in and out of the filter slot.

TROUBLE-SHOOTING/REFERENCE GUIDE

PROBLEM	SEE THIS SECTION
No cool air/air conditioning	Thermostat Operation Filter Maintenance Airflow and Register Adjustment Fuses, Circuit Breakers
No heat/room-temperature air	Gas Furnace Start-up Thermostat Operations Fuses, Circuit Breakers Heat Pump Information
No airflow to all/some rooms	Airflow and Register Adjustment System Sizing/Operation Filter Maintenance
Smoke/burning smell from regulators	Gas Furnace Start-Up
Fan won't turn off	Thermostat Operation Gas Furnace Start-Up
No filter in grill/furnace	Filter Maintenance
Not cooling/warming fast enough	System Sizing/Operation