

Stand-Alone Modulating Ceiling Diffuser Control

SUBMITTAL

SubZone / WD-Fuser



**Stand-Alone or Floating
Zone Modulating Ceiling
Diffuser Controlled
By Programmable
Wireless Thermostat
Part# SWD-KIT**



DESCRIPTION

SubZone is designed for over conditioned areas and prevents overheating and overcooling of individual and stand-alone zones in commercial applications.

The system is a wireless stand-alone, microprocessor based, auto changeover control, equipped with fully modulating WD-fuser and duct sensor.

The SubZone is a 7-day programmable battery powered auto changeover communicating thermostat that communicates via an RF wireless signal to a communicating damper control module located on a fully modulating WD-Fuser,

The Auto changeover operation allows the SubZone thermostat to change from a cooling to a heating thermostat automatically. A duct sensor is included and installed upstream of the WD-Fuser to determine the temperature in the duct. If the SubZone thermostat is calling for cooling and cool air is available in the duct, the WD-Fuser will modulate open. A heating call will close the WD-Fuser. If the sensor determines warm air is available in the duct and the thermostat is calling for heat, the damper will modulate open. The SubZone system senses the duct temperature and compares it to the set point to room temperature providing warm or cool air as required. If the thermostat is not calling for heating or cooling, the WD-Fuser will modulate to the ventilation mode providing continuous air circulation to the space. The SubZone Wireless Controller is also equipped with an Auxiliary contact to control a field supplied supplemental heating source.

This combination damper - diffuser is equipped with a fluidic nozzle providing each zone with exceptional temperature control and maximum comfort. The WD-Fuser utilizes fluidic principles to maximize the Coanda effect. As room load varies, the WD-Fuser modulates to control the flow of supply air, maintaining the smoothest possible flow of air, coupled with the greatest ceiling attachment.

The WD-Fuser can be used with duct sizes of 6", 7", 8", 9" or 10". Order the collar size to fit appropriate duct size for the application.

TECHNICAL DATA

Electrical:

Wireless Thermostat Supply Voltage:

Two AA Batteries

Inputs:

- Thermistor - Ambient
- Thermistor - Duct sensor

WD- Fuser Supply Voltage: 24vac

Power consumption: 2.0 VA maximum

Inputs: 24vac

Environmental:

Operating temperature: 30 to 140° F (-1 to 60° C)

Operating humidity: 5-95% non-condensing

Storage temperature: 0 to 150° F (-18 to 66° C)

Wireless Thermostat General:

Dimensions: 3 1/2" H x 4 1/2" W x 3/4" D

Range: 45 - 95° F.

Accuracy: +/- 0.8° F.

Memory: Non-volatile EEPROM

Display: 128 x 64 Graphic LCD

WD-Fuser Dimensions:

23 7/8" wide and 23 7/8" deep, 16 7/8" high with Collar
Weight 18.5 lbs.

Fits into 2x2 T-bar ceiling

NOTE: Static Pressure at the collar neck must not exceed .1" SP. A fully modulating Bypass damper with integrated static pressure control is recommended when SubZone controls exceed 35% of the system's air capacity.

Communication:

Proprietary wireless network protocol, with up to 100' transmission range.

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ORDERING INFORMATION

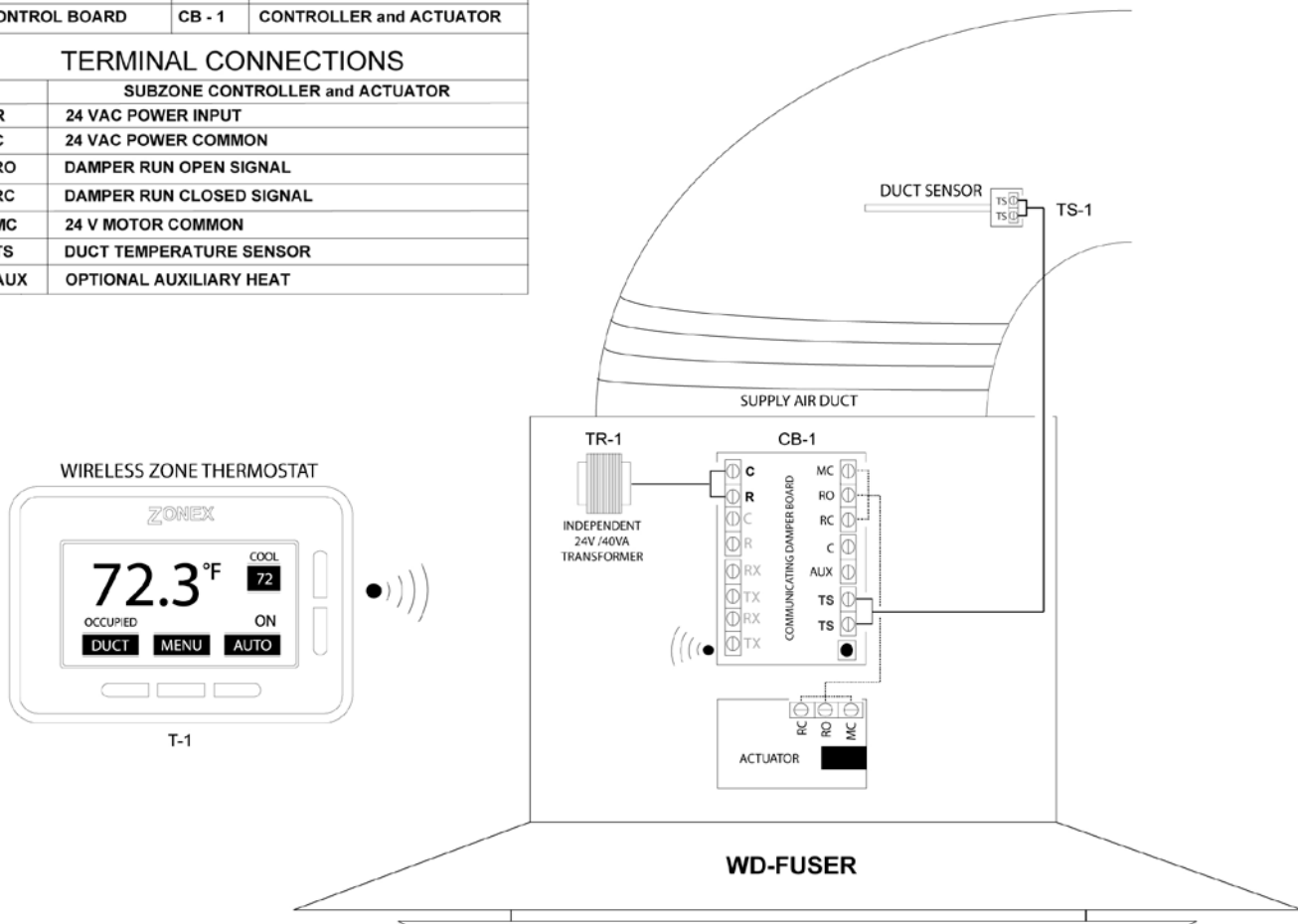
Part No. Description

SWD-KIT Stand-Alone or Floating Zone Modulating Ceiling Diffuser Controlled by Programmable Wireless Thermostat, includes Collar and 24v Transformer.

TERMINAL FUNCTIONS

SUBZONE SYSTEM		
		DESCRIPTION
THERMOSTAT	T - 1	SUBZONE WIRELESS STAT
TRANSFORMER	TR - 1	SYSTEM POWER 24 V - 40 VA
LAT SENSOR	TS -1	DUCT TEMPERATURE SENSOR
CONTROL BOARD	CB - 1	CONTROLLER and ACTUATOR

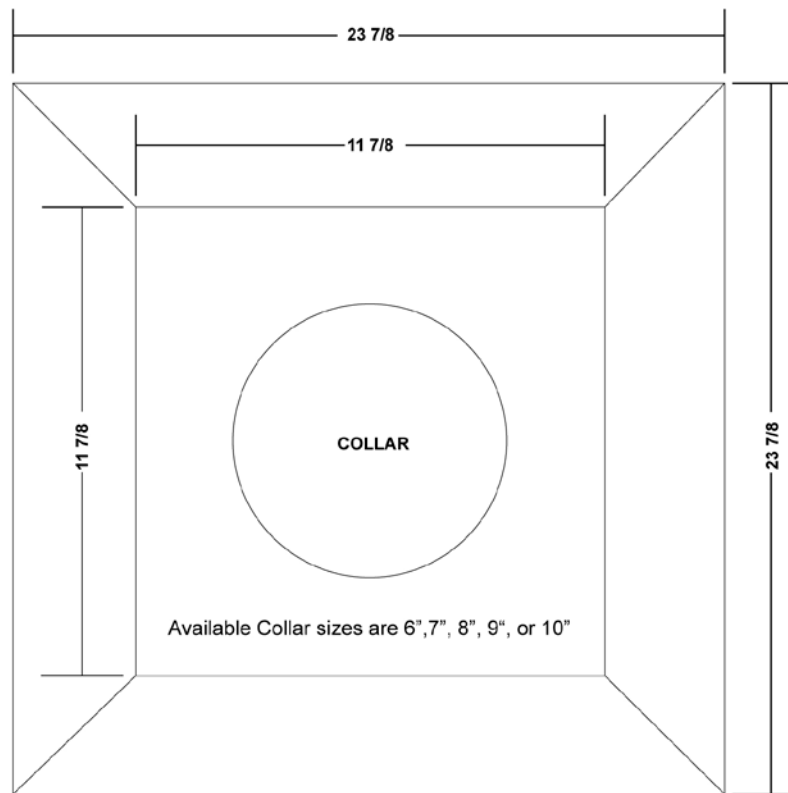
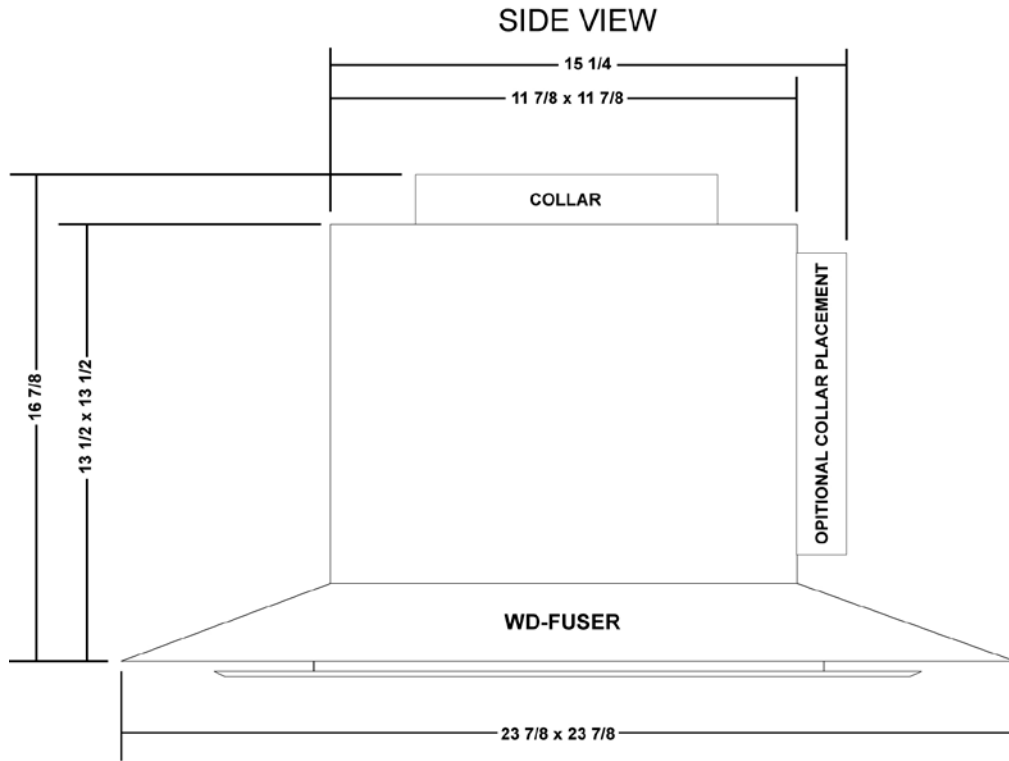
TERMINAL CONNECTIONS	
SUBZONE CONTROLLER and ACTUATOR	
R	24 VAC POWER INPUT
C	24 VAC POWER COMMON
RO	DAMPER RUN OPEN SIGNAL
RC	DAMPER RUN CLOSED SIGNAL
MC	24 V MOTOR COMMON
TS	DUCT TEMPERATURE SENSOR
AUX	OPTIONAL AUXILIARY HEAT



- Auto Changeover 7-day Programmable
- Control Fully Modulating Dampers
- Display Duct Temp at the Stat
- Adjustable Aux or Reheat Operation
- F or C Temperature Operation + or – 1°
- Single Set Point for Easy End User Operation
- Installs into a 2x2 T-Bar ceiling
- Eliminates Air Dumping
- Wireless Access
- Set point lock
- Auto / off switch
- Non-volatile memory retains stored set points, and schedules
- Slave capability – up to 3 dampers per stat
- Delivers Air at Constant Velocity
- Minimum or Maximum position adjustment

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Dimensional Data:



TOP VIEW