

DuroZone®

INSTALLATION INSTRUCTIONS

Model WRCD Remote Control Damper



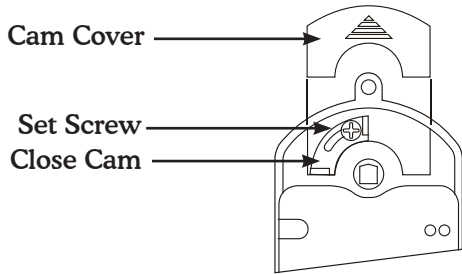
About the WRCD Damper

The WRCD damper is a variable position damper that is adjusted by using the WRC Wireless Remote Control. It has an under-sized diameter that allows it to slip into the collar of a ceiling diffuser or grill. The WRCD can increase comfort by regulating airflow into a given area to eliminate over-cooling and over-heating, or it can save energy by reducing airflow to vacant spaces.

1. Adjust the Minimum Flow

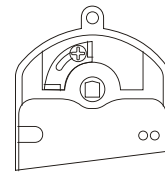
Damper Bypass

The WRCD damper motor has a Minimum Flow Position Limit that can be used to ensure some air passage when the WRCD damper is closed. The Minimum flow position can be set from about 50% open to fully closed.

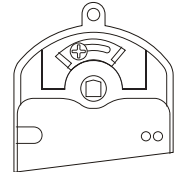


Adjusting the Minimum Flow Position Limit

Set the damper to the fully open position by applying 24VAC across the COM and 24VAC damper motor terminals. The damper will cycle open-close-open to calibrate itself. Loosen the set screw and rotate the Minimum Flow Cam clockwise to increase the airflow for the damper when it is minimized. The fully clockwise position is 50% open and the fully counterclockwise is 0% open (fully closed). After adjustment remove and connect power to allow the damper to re-calibrate itself.



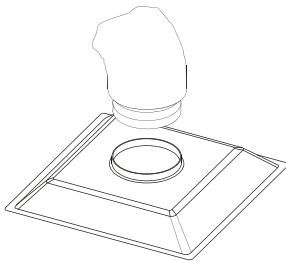
Cam set to fully closed position.



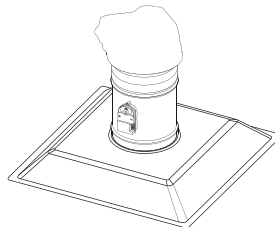
Cam set to 50% close position.

2. Install the damper in the ductwork

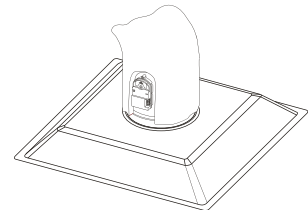
Remove the flex-duct from the ceiling register or diffuser collar.



Insert the damper into the collar and secure it with sheet metal screws. Attach the flex-duct to the damper and secure the inner sleeve to the damper using the cable tie provided.



Alternately you can shorten the inner sleeve by the length of the damper and slide the outer insulation over the damper and secure it with duct tape. Cut a slot in the insulation to fully expose the actuator.



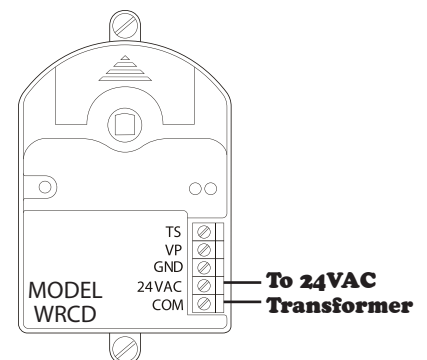
3. Connect the damper to a 24 volt AC power supply

Connect the damper motor terminals as shown. Before leaving the damper installation location, program the zone number and address number as explained in step 4.

Damper motors are rated 3.5VA and 130 miliamps during operation; 2.25VA and 90 miliamps when idle.

WRCD Damper Motor Terminals

- TS** Not used
- VP** Not used
- GND** Not used
- 24VAC** Connect to 24VAC transformer
- COM** Connect to 24VAC transformer



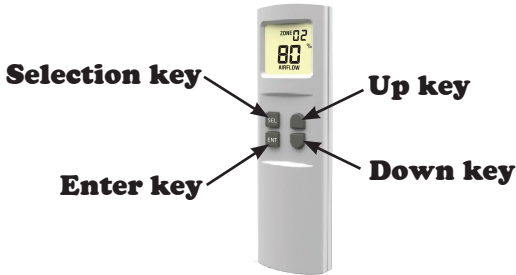
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4. Setting the Damper Zone/Address Using the Remote Control



IMPORTANT :

*Do not use other remote controls while programming is in progress.
*When batteries require replacement or are removed, the hand held remote control will need to have the zone and address for each WRCD damper re-entered. To eliminate the need to access the motor for re-programming, during initial setup be sure to record the zone and address information and keep it in an accessible location.

Low Battery Warning

When the batteries are low the display will show "Lob" and the batteries should be changed. For longer life, use Lithium AAA batteries.

Selecting the Zone Number

A zone is a single WRCD damper or a group of WRCD dampers that are programmed to operate together. Press and release the SEL key and the LCD will show the Zone Number. Use the Up and Down keys to change the zone number and press the ENT key. The new Zone number and airflow will be displayed. Zones are numbered 1 to 32.

Selecting the Address Number

The address is a convenient way to organize the zones (WRCD dampers). For example, an address might be used to differentiate zones on one floor from zones on another floor or zones at the south end of a building from zones at the north end.

Select a unique address (1 to 32). Press and release the SEL key twice and the LCD will show the Address Number. Use the Up and Down keys to change the Address and press the ENT key.

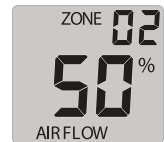
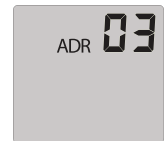
Setting the Damper Zone and Address

To initiate the motor programming cycle press the small push button on the WRCD motor. The red and green LEDs will blink. During the next 30 seconds the Zone and Address can be programmed into the WRCD damper motor.

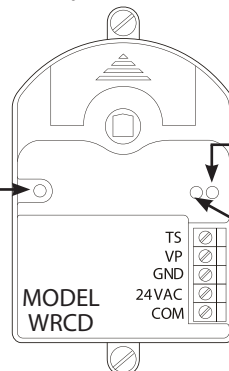
Press and release the SEL key three times and the LCD will show PRG DPR in the lower left corner. Press the ENT key to program the Zone and Address in the WRCD damper.

Adjusting Airflow

After selecting the Zone number, press the Up and Down keys to set the airflow. Pressing the ENT key sends the new airflow setting to the actuator. The percent airflow display is based upon the range from the minimum flow position (displayed as 0%) to 100%



Push this button to enable programming a new Zone and Address number



Red LED indicates damper is in the minimum flow position.

Green LED indicates damper is in the maximum flow position.

Install all devices in accordance with applicable electrical and mechanical codes.

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ALL DUROZONE DAMPERS FEATURE:

- 5 year limited warranty
- Controlled bypass
- Maintenance free operation
- Quick install mounting clips (except Round Dampers)
- 100% factory testing
- Screwless terminals
- Custom dampers and special controls are available on request.