eControls

Model WRDC
Wireless Remote Damper Control
User and Installation Manual

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The WRDC Wireless Remote Damper Control eliminates overheating, overcooling and conditioning unused spaces to improve comfort and save energy.

WRDC
Wireless Remote
Damper Control

R80DWL Damper
(Sold Separately)

Understanding Your WRDC Damper Control

Your installation includes a WRDC Wireless Remote Damper Control and a wireless modulating R80DWL Damper that controls the amount of heating or cooling airflow to a space. The WRDC communicates wirelessly to the R80DWL Damper. Airflow can be adjusted from 100% (damper fully open) to 0% (damper closed) in 5% increments.

The WRDC Remote and the R80DWL Damper default to Damper 01. The WRDC Remote can control up to 8 unique dampers / zones.

ATTENTION: *The WRDC is not intended as a zoning system and caution should be taken when closing multiple dampers. Closing too many dampers at once could cause airflow and/or pressure problems.*

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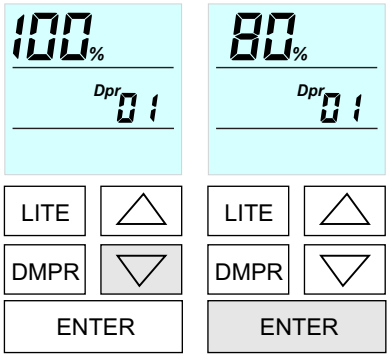
Eliminate Overheating or Overcooling

When the space is overheated or overcooled, simply lower the airflow. The damper partially closes and reduces the amount of heating or cooling to the space. By partially closing the damper, more heating or cooling is redirected to other spaces, improving comfort and saving energy.

Press and **Hold** the **UP** or **DOWN** key to adjust the airflow to the space. Start with a 10-20% adjustment.

Press the **ENTER** key to send the communication to the damper.



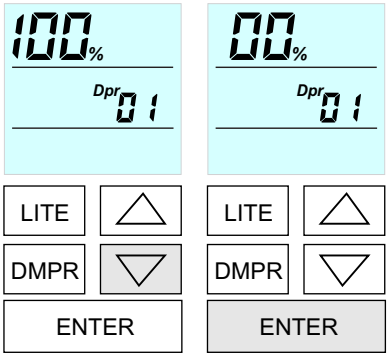
Eliminate Conditioning Unoccupied Spaces

For unoccupied spaces, lower the airflow to a very low setting. The damper closes and significantly reduces the amount of heating or cooling to the space, saving energy. By closing the damper, more heating or cooling is redirected to other spaces.

Press and **Hold** the **DOWN** key to reduce the airflow to the space.

Press the **ENTER** key to send the communication to the damper.

When the space is occupied, simply **Press** and **Hold** the **UP** key to increase airflow to the space then **Press** the **ENTER** key.



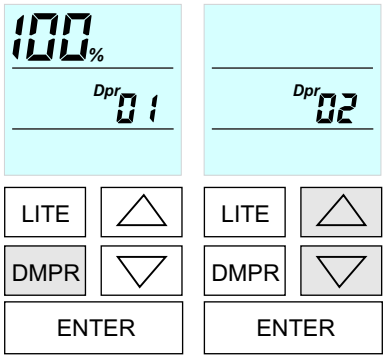
USER

Selecting Damper / Zone Number

If the WRDC Remote is controlling more than one damper / zone, use the DMPR key to select the desired Damper before making an adjustment.

Press the **DMPR** key.

Press and **Hold** the **UP** or **DOWN** to select the desired damper. The selection is saved when the backlight turns off.



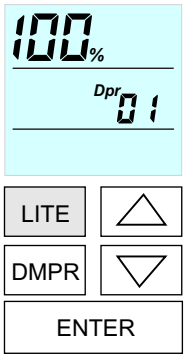
The airflow for the selected damper is now displayed. **Press** and **Hold** the **UP** or **DOWN** to adjust the airflow to the space then **Press** the **ENTER** key.

The form below is used to document the Damper number and the corresponding location.

Damper #	Damper Location
Damper 1	
Damper 2	
Damper 3	
Damper 4	
Damper 5	
Damper 6	
Damper 7	
Damper 8	

Lite Key

The WRDC Remote includes a **LITE** key that when pressed, turns on the backlight to easily view the display at night. The backlight also turns on when any key is pressed.



Changing Batteries

The remote includes 2 AAA batteries. If the backlight does not come on, or if wireless communication is slow or not responsive, it may be time to change the batteries.

- The battery compartment is accessed by removing the four screws on the back of the remote. Be sure the polarity is correct when installing the new batteries. We do recommend that you replace with AAA Lithium batteries for longer battery life and better performance.

TROUBLESHOOTING

The damper is not controlling airflow.

- Make sure the correct Damper number is selected
- Make sure the damper is powered.
- Change the batteries in the remote.

Power Outage

- When power is restored after a power outage, the damper goes to a fully open position then repositions to the last damper setting. If the damper does not reposition, press the ENTER key to send a communication to update the damper position.

Airflow set to 0% but I still feel some airflow.

- For unsealed dampers, it's normal to feel a very small amount of airflow. If the airflow is very noticeable, a technician should check to make sure the damper is opening and closing properly.

INSTALLATION

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INSTALLATION STEPS

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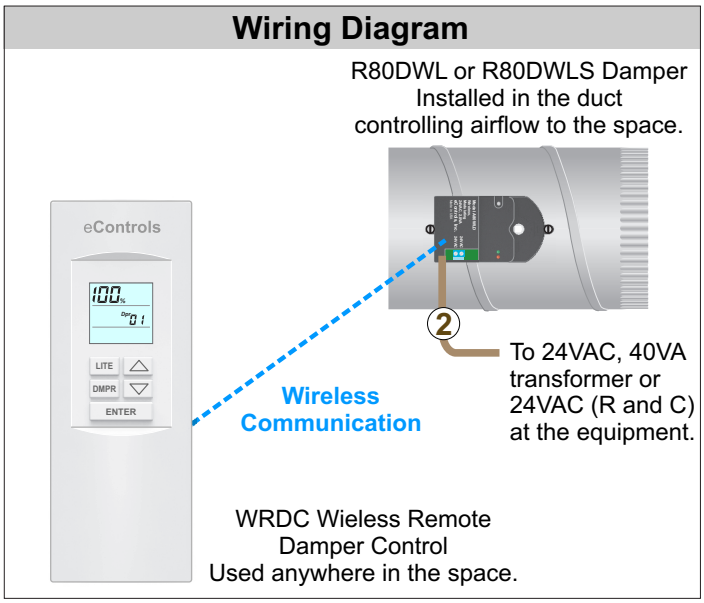
CAUTIONS

- Before installing, turn off all power to the HVAC system.
- Read and follow all instructions carefully.
- Read entire manual before installing products.

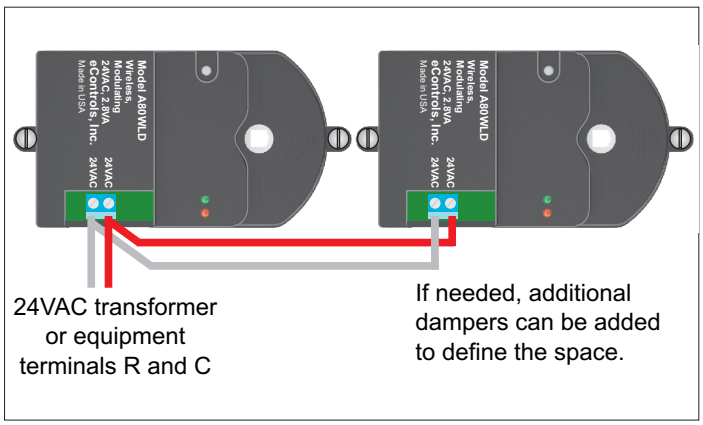
Wiring Diagram



Step 1. Install and Wire Damper(s)

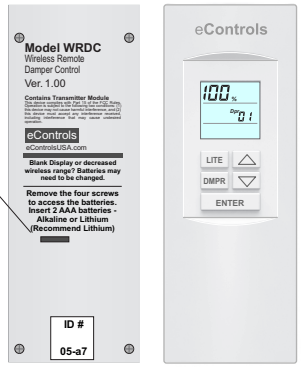
- Install an R80DWL or R80DWLS damper in the trunk line supplying air to the space.
- Use 18 or 20 ga., 2-conductor thermostat cable to connect the damper actuator to a 24VAC, 40VA transformer or to the R and C terminals at the equipment. See Figure 1.
- If needed, multiple dampers can be connected to define a space. Use 18 or 20 ga. thermostat cable to connect multiple dampers. A 40VA transformer can power up to 6 dampers. See Figure 1.

Figure 1.



Step 2. Power the Remote

Use the pull tab on the back of the WRDC Remote to activate the AAA batteries already installed.



The remote will immediately power up and default to Damper 01 and 100% Airflow.

Step 3. Power Dampers and Test Airflow

Power the 24VAC transformer or equipment.

- The damper should display a green LED indicating the damper is fully open.
- If the WRDC is controlling more than one damper / zone, set the Damper Number on the Actuator before proceeding (See Step 4).
- Set the thermostat for a cooling call or continuous fan call.
- **Press** and **Hold** the **DOWN** key to set airflow to 0% then **Press** the **ENTER** key. The damper should go to the closed position and display a red LED. You should measure or feel very little airflow to the space.
- **Press** and **Hold** the **UP** key to set airflow to 50% the **Press** the **ENTER** key. The damper should go to a partially closed position and display a blinking red/green LED. You should measure or feel some airflow to the space but not as much as at 100%.
- **Press** and **Hold** the **UP** key to set airflow to 100% then **Press** the **ENTER** key. The damper should go to a fully open position and display a green LED.

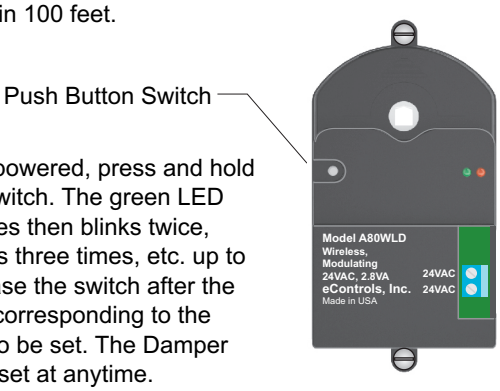
To test a different Damper number, **Press** the **DMPR** key then **Press** and **Hold** the **UP** or **DOWN** key to select the Damper number to test. The selection is saved when the backlight turns off. Repeat the steps above to test airflow to the space.

Damper LEDs and Position

Airflow Setting	LED	Damper Position
100%	Green	Open
0%	Red	Closed
Between 100% and 0%	Green and Red LED Blink.	Partially Closed

Step 4. Set Damper Number on Actuator (Only if multiple dampers are installed)

Dampers are factory set to Damper 01 and only need to be changed when the WRDC Remote is controlling multiple dampers in different spaces or when another WRDC Remote installation is within 100 feet.



With the damper powered, press and hold the push button switch. The green LED blinks once, pauses then blinks twice, pauses then blinks three times, etc. up to eight times. Release the switch after the number of blinks corresponding to the Damper number to be set. The Damper number can be reset at anytime.

Document the Damper number and the corresponding location on the form in the User Section of the manual on Page .

TROUBLESHOOTING

- No LED on Damper Actuator when airflow is set to 100% - Check the wiring. Check power.
- Damper not adjusting airflow - Make sure the Damper # is set correctly.

Limited 5-Year Warranty

The 5-year warranty is limited to the repair or replacement of defective product due to parts failure or defective workmanship.

eControls
26072 Merit Circle #110 / Laguna Hills, CA 92653
949-916-0945 Fax 949-458-8502 www.eControlsUSA.com