

Model 8190FF Ventilation Plenum for Dehumidifier

Installation Instructions

⚠ WARNING

- 120 Volts may cause serious injury from electric shock. Disconnect electrical power before starting installation or servicing. Leave power disconnected until installation/service is completed.
- Sharp edges may cause serious injury from cuts. Use care when cutting plenum openings and handling duct work.

⚠ CAUTION

Do not force damper blades by hand, as damage to the product may occur.

NOTE: The E100V dehumidifier contains all necessary components to power the 8190FF. The required transformer and power harness are not included with the 8190FF. Aprilaire recommends 18-22 AWG wire and model 4010 or equivalent 24VAC transformer (10 VA min.) for use with any dehumidifier other than the E100V.

OPERATION

The Model 8190FF is a ventilation plenum that can be installed to any Model E100 or Model 1850 dehumidifier.

- Ventilation is controlled by the VENT terminals on the dehumidifier user interface. Ventilation set up can be found in the dehumidifier Installation and Operation Manual.
- When not powered, the 6" ventilation duct is closed while the 10" return duct is open to allow for dehumidification of the air in the home.
- When ventilating (powered), the return duct closes while the ventilation duct opens to allow fresh air to enter the home.

INSTALLING THE 8190FF TO THE DEHUMIDIFIER

NOTE: The control must be installed on the top of the dehumidifier. Refer to the dehumidifier **Installation and Operation Manual** for details on moving the control.

- Remove the duct collar, if installed, from the dehumidifier inlet and install it on the 10" opening of the 8190FF using the supplied #6 screws. Use the remaining #6 screws to install the included 6" duct collar in the 6" opening. **NOTE:** Always install the 10" collar on the 8190FF to prevent anything from impinging operation of the damper.
- Install two of the supplied #10 screws to the top holes around the dehumidifier inlet leaving approximately 1/8" space between screw head and cabinet.
- Hang the 8190FF on top screws then install bottom screws and tighten all four.

NOTES:

- Ensure the "Airflow Adjustment" thumb screw is in the "+" position and tightened down.
- The 8190FF cabinet is insulated – **do not insulate the actuator.**

FIGURE 1 – DAMPER OPERATION

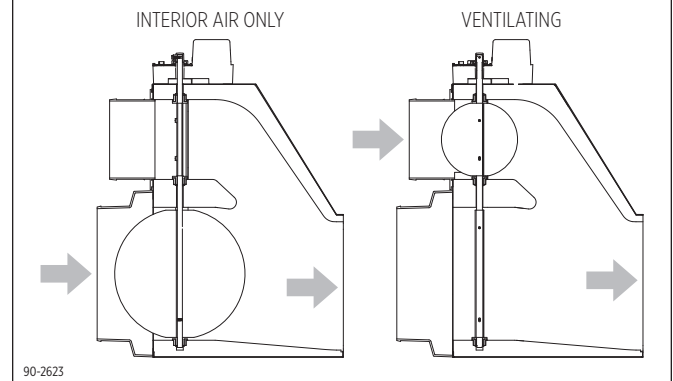
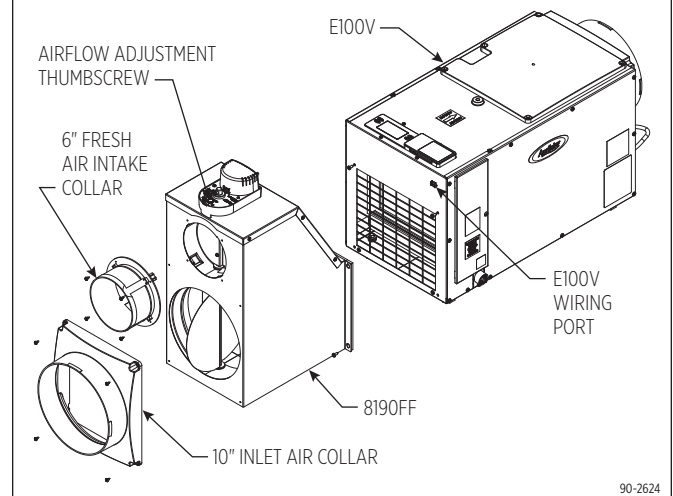


FIGURE 2 – ASSEMBLING AND MOUNTING THE 8190FF



INSTALL DUCTWORK

DUCTING THE 8190FF

1. Install insulated ductwork from the 6" ventilation opening to the fresh air inlet hood.
2. Tape or mastic the duct to the hood and collar, and seal the duct insulation on the ends using zip ties or tape.
3. Install ductwork from the 10" 8190FF collar to a location with air representative of the whole house. If the 10" duct is located in an unconditioned space such as an attic or garage, use insulated duct and tape/seal the duct and insulation as you would the fresh air intake duct. Suggested dehumidifier inlet ducting:
 - Install a separate register with 10" collar in the space to be dehumidified.
 - Connect the 10" duct to a return air plenum or to the return air duct.

Refer to dehumidifier **Installation Instructions** and **Owner's Manual** for instructions for ducting the dehumidifier to your HVAC system.

WIRING THE 8190FF

Remove/turn off the fuse or circuit breaker that provides/will provide power to the dehumidifier before starting wiring. Do not restore power until all wiring is complete.

1. Wiring to the Model E100V dehumidifier (see **FIGURE 3**).
 - Use the included switched-power jumper wire and 2-wire connector to attach one of the 8190FF wires to one of the VENT terminals on the dehumidifier user interface.
 - Use the power harness included with the E100V dehumidifier to connect the dehumidifier power port to the unused VENT terminal and 8190FF wire.
2. Wire to a Model E100 or Model 1850 dehumidifier (see **FIGURE 4**).
 - Use 18-22 AWG wire to attach one of the 8190FF wires to one of the VENT terminals on the dehumidifier user interface.
 - Install the 24VAC transformer, preferably to the junction box used for the dehumidifier power outlet. Make sure the fuse or circuit breaker that serves the junction box to which the transformer is to be wired, has been removed/turned off
 - Use 2-wire cable, 22 AWG minimum, to connect the transformer to the unused VENT terminal and 8190FF wire.

Refer to dehumidifier **Installation Instructions** and **Owner's Manual** for instructions on wiring and ventilation setup.

FIGURE 3 – WIRING INSTRUCTIONS FOR 8190FF TO E100V

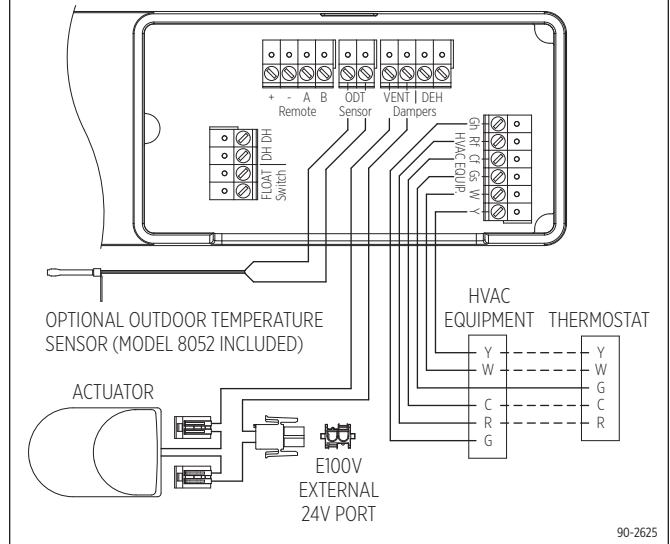
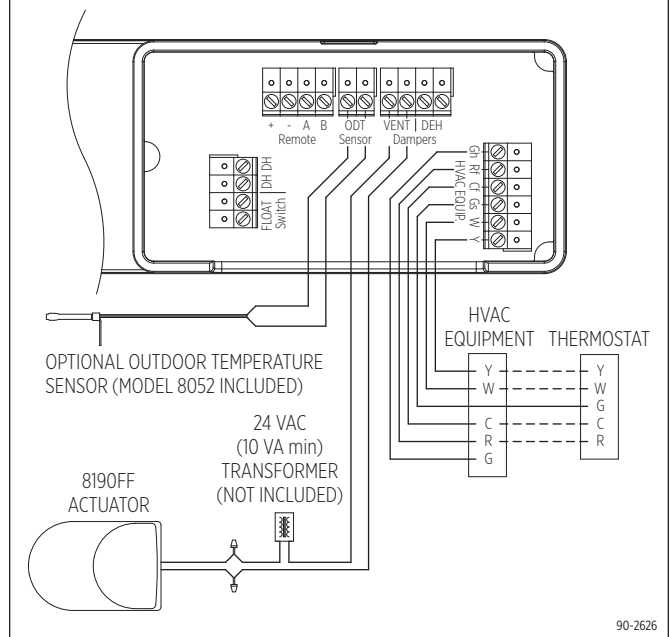


FIGURE 4 – WIRING INSTRUCTIONS FOR 8190FF TO OTHER



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