

Jackson Systems HD-XXXX Zone Damper Installation Instructions

INTRODUCTION:

Read these instructions carefully. Failure to follow the instructions could damage the damper or other HVAC system components or cause a hazardous condition. This damper should only be installed by a trained, experienced HVAC technician. After completing installation, use these instructions to check damper operation.

LOCATION:

The damper should be installed as close as possible to the main discharge air plenum in the branch duct serving the zone. Always make sure the damper is accessible for wiring, checkout, duct cleaning and replacement when necessary.

DAMPER SIZE:

To ensure proper operation, the HD-XXX must be properly sized for the duct. The damper size is slightly smaller in length and height (1/4") than the listed dimensions. If the damper is forced into an undersized duct, the excess pressure could jam the damper blades and cause improper operation.

HUMIDIFICATION:

Do not install the damper in heating systems where spray or atomizing type humidifiers are used in the furnace plenum or supply duct. Excessive lime or mineral deposits can accumulate on damper blades and cause improper operation.

INSTALLATION CONSIDERATIONS:

Install the damper into a squared duct. Frame misalignment may jam the damper blades. Do not weld damper to air duct. **Do not install damper in ducts with static pressures above 1.5" w.c. or with temperatures higher than 200° F.**

INSTALLATION:

1. Cut a 4" opening in one side of the duct that will accept the damper actuator and mounting flange. (FIGURE 1)
2. Slide the damper into the opening cutout until the mounting flange is flush with the outside of the duct. (FIGURE 2)
3. Secure the mounting flange with sheet metal screws using the pre-drilled mounting holes. (figure 3)

FIGURE 1

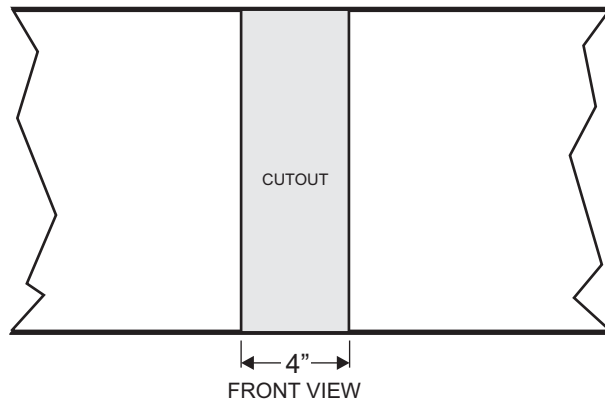


FIGURE 2

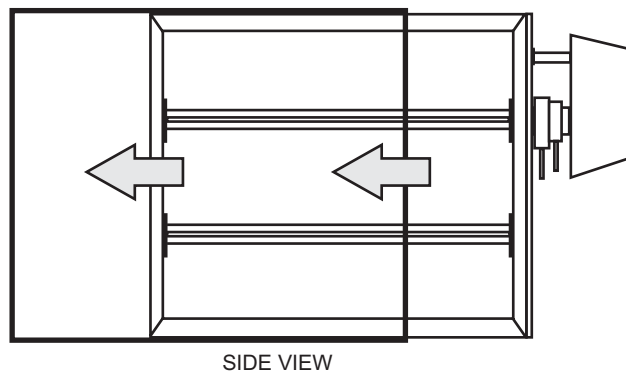
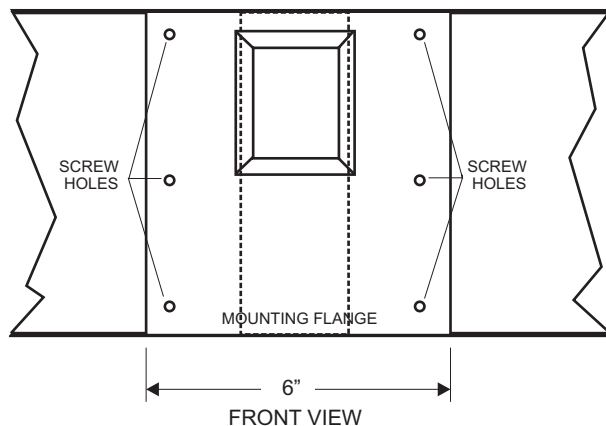


FIGURE 3



WIRING:

BEFORE WIRING, MAKE SURE ALL POWER IS DISCONNECTED TO PREVENT ELECTRICAL SHOCK OR EQUIPMENT DAMAGE!

WIRING SHOULD CONFORM TO NEC STANDARDS AND ALL APPLICABLE LOCAL CODES.

1. The damper requires only two (2) wires for 24 Volt power. When 24 Volts is applied to the actuator, the damper is driven closed. When 24 Volts is removed, the damper spring returns open.
2. When the damper is connected to a Jackson Systems zone control panel, it wires to the C (Common) and PO (Power Open) terminals. These terminals are also designated as the 'D' and 'D' terminals. (FIGURE 4)
3. In applications where a zone control panel is not used, one of the actuator leads wires directly to a 24 Volt power source and the other lead is interrupted through a switch. (FIGURE 5)
4. The maximum number of dampers that can be wired in parallel to any one zone on a Jackson Systems zone control panel is three. If more than three dampers are required on a single zone, an isolation relay and additional transformer may be required.

MINIMUM POSITION SETTING:

To set the minimum position, the damper must be in the spring open position. Loosen the long minimum position set screw and move it to the desired setting shown on the minimum position label and then re-tighten. When the damper is powered closed, the minimum position screw will stop the damper at the setting. (FIGURE 6)

FIGURE 4

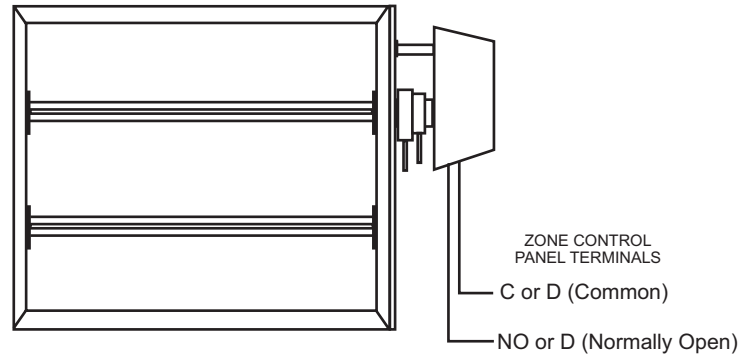


FIGURE 5

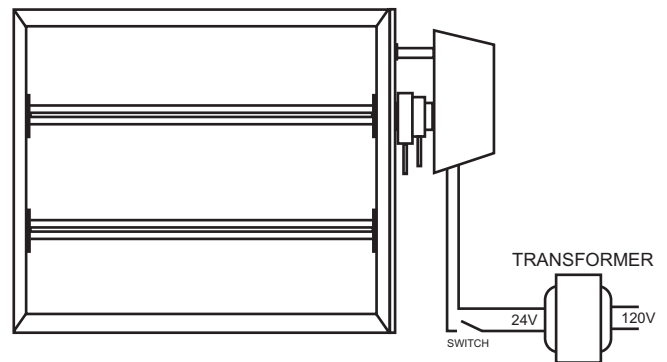
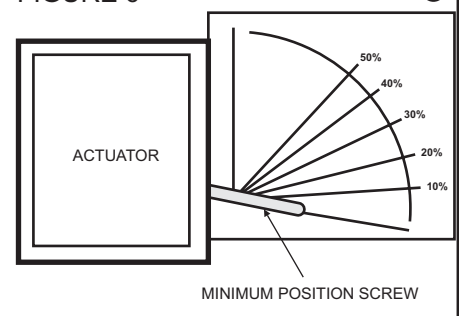


FIGURE 6



SPECIFICATIONS

DIMENSIONS:

Damper models HD-XXXX are sized width (A) by height (B) with actuator on the (B) dimension. Bottom mount models HD-XXXX-BM are sized width (A) by height (B) with actuator on the (A) dimension. Actual (A) and (B) dimensions are undercut 1/4". Standard sizes range from 8" x 8" up to 36" x 24" in 2" increments.

CONSTRUCTION:

- 1/16" extruded aluminum frame
- 1/16" extruded aluminum parallel blades
- 1/16" aluminum mounting flange
- Nylon bushings
- Minimum position adjustment

ELECTRICAL:

24 Volt, 10 VA, 0.356 Amp powered closed, spring return open actuator
Also available in powered open, spring return closed
Motor is impedance protected with no end switches