

Zone Comfort -- Supplemental Damper Instructions

The dampers for the **Zone Comfort™** system are now installed remotely from the air handler by the installer. This page covers the changes.

Damper locations

Select the best location for all dampers.

Options include:

- out the top of the supply air plenum
- out the sides of the supply air plenum
- remote locations in the supply ductwork

Allow for future service access to the dampers.

Do not mix plenum take off locations. They should be all from the top or all from the sides.

Supply plenum

Supply and install a standard supply air plenum similar to single-zone air handlers and furnaces. The plenum flange is 20 x 20 inches (12 x 16 inches on the ZC12 and ZC18). The standard connection to the air handler is with S-cleat.

When designing the plenum, make the following allowances:

- a transition to larger sized evaporator coil may be required
- evaporator coil must be at least 4 inches above the heating coil to protect from freezing
- at least four inches between the top of the evaporator coil and bottom of the dampers is recommended

- at least 22 inches is required to fit two 10 inch dampers beside each other
- Side take offs are preferred in most cases but if using top takeoffs, allow space for the dampers and elbows.

An over-sized plenum (ex. 21W x 24D) can be screwed down directly onto the top of the air handler. Do not install screws near the water coil. Screws must be one inch away from the front and back duct flange.

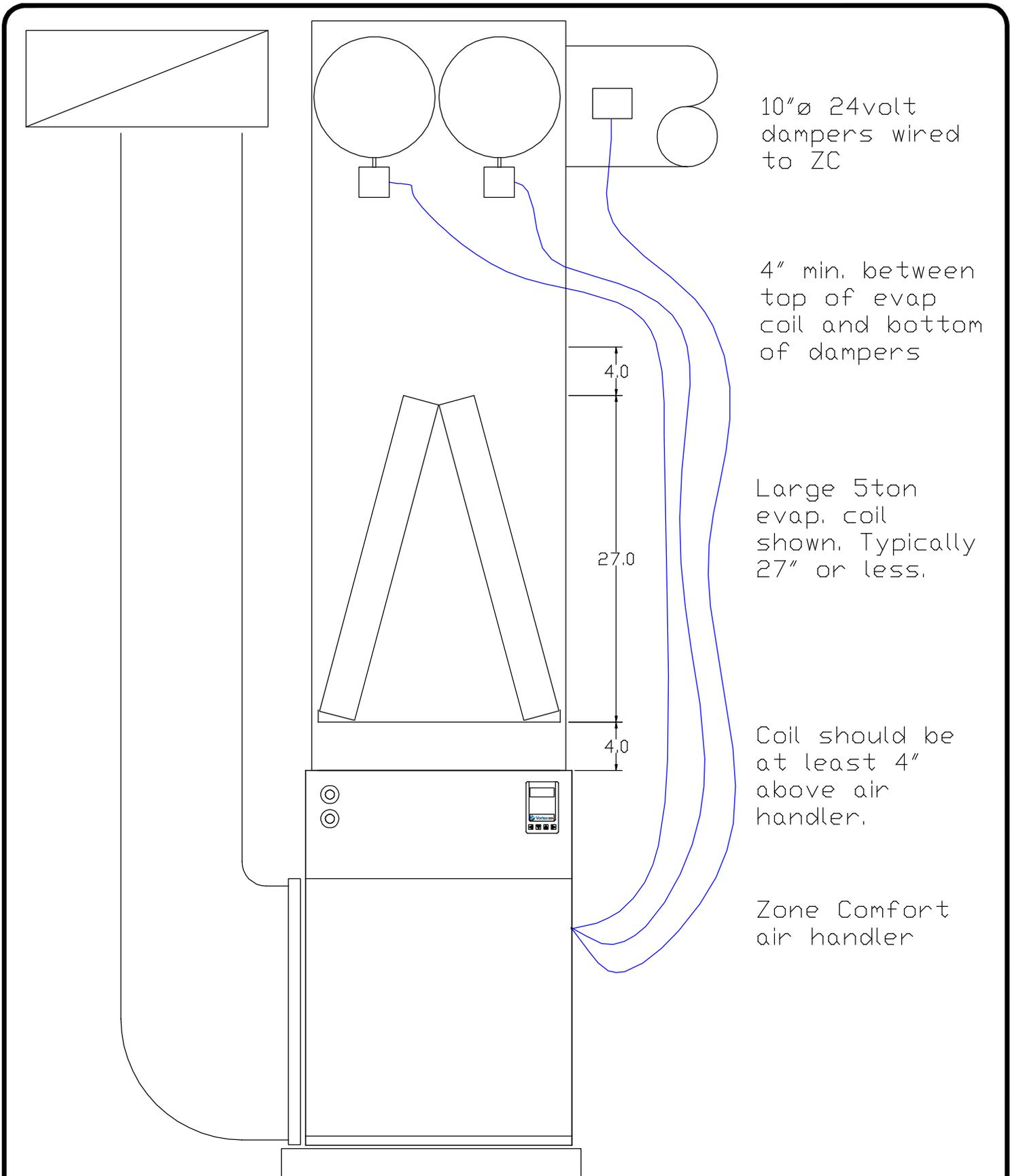
Damper Installation

If installing dampers into the plenum, use the damper flange to screw the dampers. Seal to the plenum with suitable duct seal. Screws can be driven directly into the damper but take care to ensure free movement of the damper blade.

Electrical Connections

The dampers are powered close and spring open. The damper motor is two-wire, low voltage (24vac) and low current (10mA). Any suitable low-voltage wire such as thermostat wire is acceptable. The two wires are not polarity sensitive. One is ground and one is powered. The ground wires of all the dampers are connected together either at the dampers or at the air handler. Four dampers could be connected to four two-wire cables or one five-wire cable.

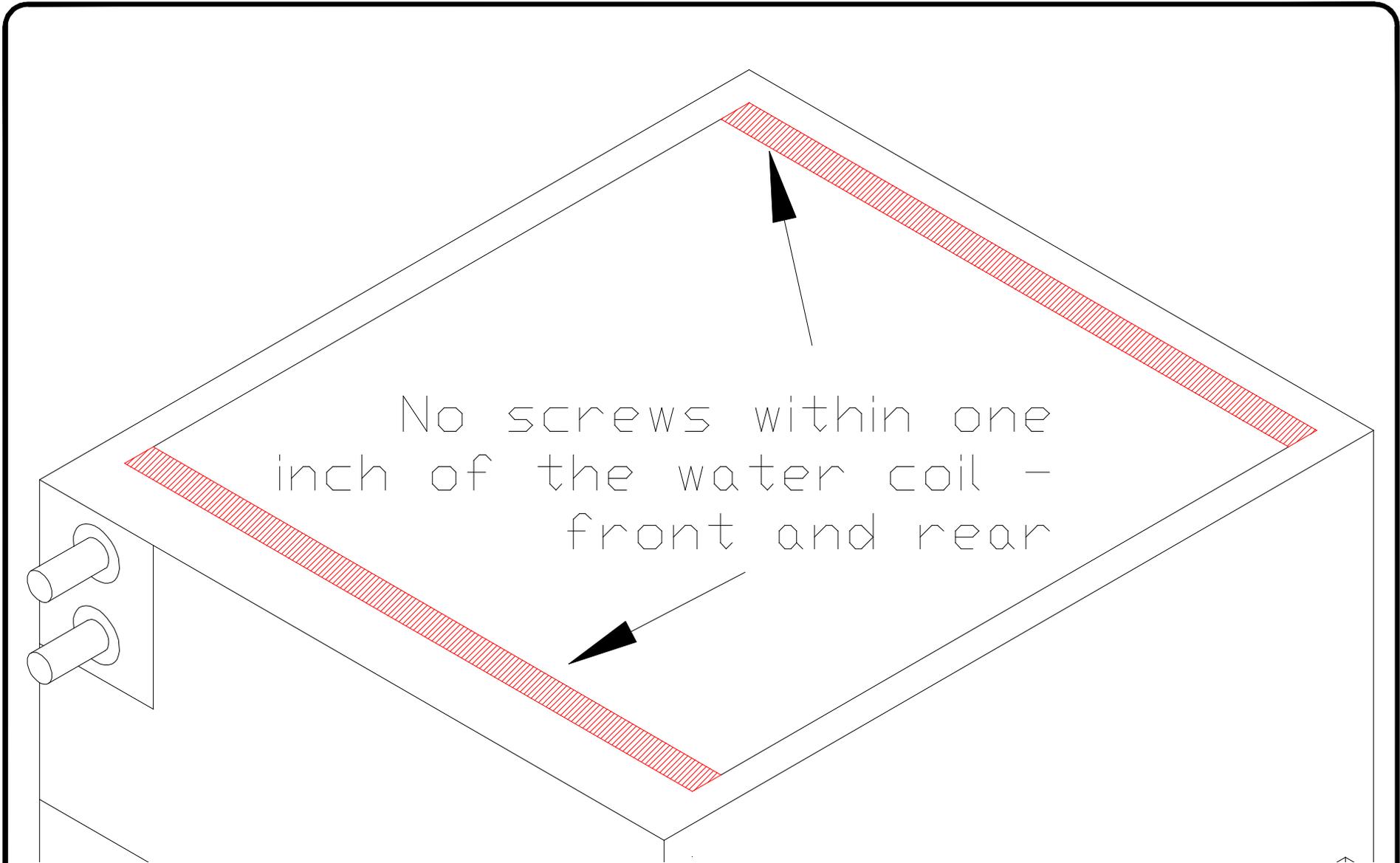
Connect the wires to the air handler terminal block. Label zones and wires for future reference.



Vortex source systems
 45 Cowansview Rd.
 Cambridge, Ontario N1R 7L2
 Phone: 888-781-8151
 Fax: 888-670-2544
 e-mail: info@vortexsource.com

DRAWING TITLE
**Zone Comfort A.H.
 Remote Dampers**

DRAWING NUMBER
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 REVISION
20181118



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Cambridge, Ontario N1R 7L2
Phone: 888-781-8151
Fax: 888-670-2544
e-mail: info@vortexsource.com

DRAWING TITLE

Air Handler
Water Coil &
Screw Clearance

Duct flange hidden for clarity.

DRAWING NUMBER

REVISION
20190118