

# Single Duct Installation Manual

## Receiving Inspection

After unpacking the terminal, check it for shipping damage. If any shipping damage is found, report it immediately to the delivering carrier. Store units in a clean, dry location prior to installation.

Also, inspect damper rotation of the unit by rotating the damper by hand to check for free movement, and ensure there is no damage or binding of the damper. If controls are connected to the damper, release the manual clutch (most controls are equipped with this) and rotate the damper by hand. If there is any restriction to the rotation of the damper, contact your Titus rep and inform them of this issue.



Do not use the flow sensor, connecting tubing, or damper shaft linkage as a handle to lift or move assembly. Damage to the flow sensor or controls may result.

## Supporting the Assembly

Assembly Many basic single duct terminals are light enough to be supported by the duct work itself. Where heavier accessory modules, such as DDC controls, coils, attenuators, or multiple outlets are included, the terminal should be supported directly. Straps screwed directly into the side of the terminal, threaded rod through the optional hanger brackets (see Figure 1), or the method prescribed for the rectangular duct on the job specifications may be used.

Important: If equipped with pneumatic controls, the terminal must be mounted right side up. It must be level within + or -10 degrees of horizontal, both parallel to the air flow and at the right angle of air flow. The control side of the terminal is labeled with an arrow indicating UP. The first letter of the model number (P) indicates pneumatic controls. Most electronic units (A-analog controls and D-digital controls) can be installed in any orientation. Check with the local Tuttle & Bailey representative for verification.

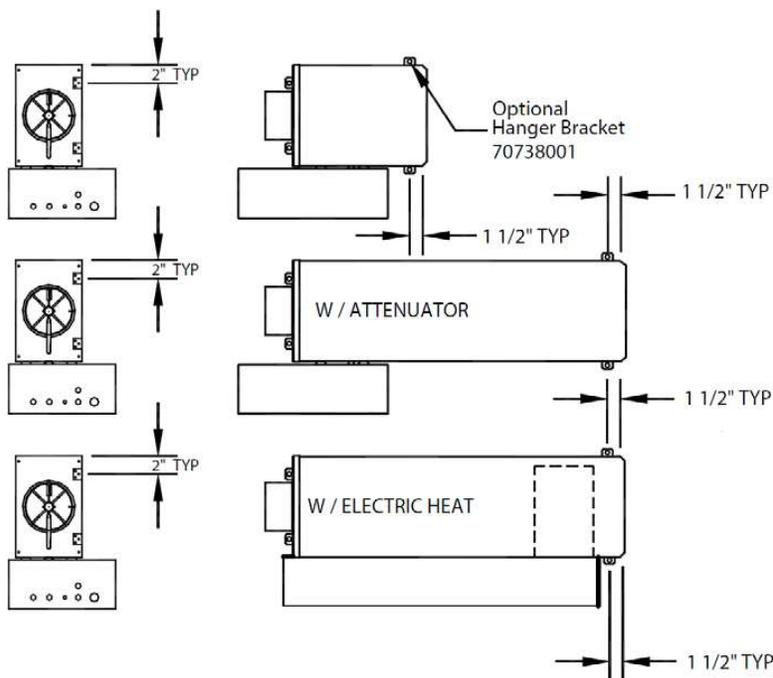


Figure 1 - Single Duct Recommended Hanger Bracket Locations

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## Installation of Seismic Models

Terminal units that are used in buildings subject to seismic activity have been certified to be installed as outlined below. This will ensure the unit's structural integrity and functionality. Seismic installation makes use of threaded rods, cables for lateral bracing, and struts for added support. These and other installation parts are supplied by others.

Install the seismic terminal unit as shown in Figure 2, as described in these details:

- Suspend the unit with four ½" ASTM-A307 rods, with HRSA (VMC) Spring and Elastomeric Angularity Hangers
- Use four SB-250 (VMC) ¼" Seismic Cable Kits for lateral bracing and SRBC-1 (VMC) Rod Stiffening Clamps (three per rod).
  - Attach the SB-250's to structure using 5/8" hardware
  - Fasten the SRBC-1's to L1x1x¼ ASTM-A36 angle
- Each rod should be double-nutted to 1-5/8" 12 ga strut fastened to the bottom of the unit with #12 screws at min 6" O.C. – and double-nutted to 1-5/8" 12 ga strut fastened to the top with the factory-mounted 2" X 2" X 10 ga A36 angle bracket attached to the side-top-corner of the unit with six #12 screws.
  - Use shims to fill the gap between the top bracket and the strut
  - Place brackets on common side for rectangular attachment pattern

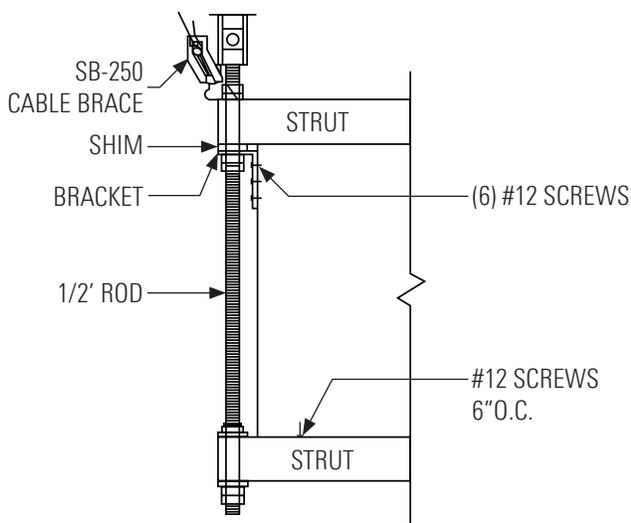


Figure 2

## Duct Connections

Slip each inlet duct over the inlet collar of the terminal. Fasten and seal the connection by the method prescribed by the job specification.

The diameter of the inlet duct "D" in inches must be equal to the listed size of the terminal; e.g. a duct that actually measures 8 inches must be fitted to a size 8 terminal. The inlet collar of the terminal is made 1/8 inch smaller than listed size in order to fit inside the duct (see Figure 1).



Do not insert duct work inside the inlet collar of the assembly. Inlet duct should be installed in accordance with SMACNA guidelines.

The outlet end of the terminal is designed for use with slip and drive duct connections. A rectangular duct the size of the terminal outlet should be attached.

Inspect the Aerocross inlet flow sensor for shipping damage, and ensure that the high (green) and low (red) tubes are attached. Provide at least 1½ times the inlet duct diameter of straight duct for optimum control accuracy. For more information on our Aerocross, see the Aerocross Flow Sensor Application Guide.