EDV-S Dual Duct VAV Terminals

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.

Caution: 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

Caution: This manual is intended to give a basic overview of installation and should not be considered an approved method. The attachment method detailed here were used for OSHPD pre-approval during the AC 156 shake test. Please consult mechanical drawings, building codes, and the engineer of record for detailed instructions on installation.
Seismically rated terminals must be fully supported to counteract both the normal and sheer stress associated with a seismic event. (See Figure 1) The bottom of the terminal is supported by strut channel and directly fastened to the terminal using #10 1" screws max 4" o.c. The strut channel is supported by hanger rods anchored to the building structure. Rod stiffeners are used to give extra support to the hanger rods in the event of a seismic event. The bottom should be left clear where there are access panels. Horizontal forces are counteracted by a cable brace attached at the hanger rod/strut channel joint (See Figure 2) and supported by the buildings structure.

Important: If equipped with pneumatic controls, the terminal must be mounted right side up. It must be level with the 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 can be installed in any orientation. Check with the local TITUS representative for verification.

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 in 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). The supply ductwork must be insulated up to the face of the terminal unit even if inlet adapters are used.

Note: **Do not insert duct work inside the inlet collar.** Inlet duct should be installed in accordance with SMACNA guidelines.

The outlet end of EDV-S series units are 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.

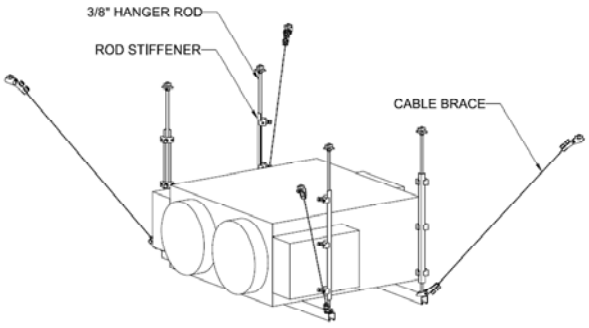

Figure 1. Dual Duct Supports

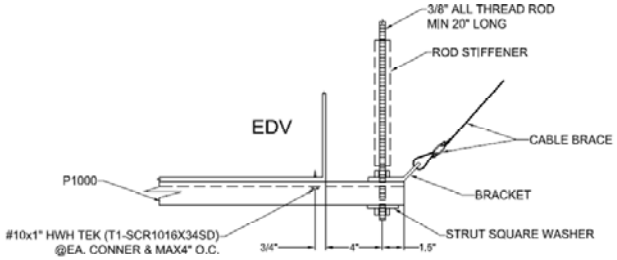

Figure 2. Channel Strut Attachment Detail

Field Wiring

All field wiring must comply with the local codes and with the National Electrical Code (ANSI/NFPA 70-1981). Electrical, control, and piping diagrams are shown on the exterior labeling or on the diagram on inside of control enclosure cover.

Control Start-up, Operation

Detailed information regarding power, accessory and communications connections, start-up and operating procedures for the controls provided by TITUS are available from your local TITUS representative. For specific information on controls by other manufacturers, contact that manufacturers local branch or dealer.

Important: Units with digital controllers may incorporate specific communication addresses based on Building Management Systems Architecture, and original engineering drawings. Installing the terminal in a different location than noted on unit label may result in excessive start-up labor.

Calibration Instructions

For Pneumatic Controls, see PNEU-IOM: Operations Manual for Pneumatic Controls.

For Digital Controls: see control manufacturer's manual

Replacement Parts

Description	Part Number
Primary Damper Assembly	
Size 4-5-6"	31171301
Size 7"	31171302
Size 8"	31171303
Size 9"	31171304
Size 10"	31171305
Size 12"	31171306
Size 14"	31171307
Size 16"	31171308
Damper Shaft Extension	
Short Stub all sizes	70300301
Long Ext. Sz. 4-6, 14, 16	70300302
Long Ext. Sz. 7-12	70300303
Shaft Bearing - All	70324901
Control Tube	
Red Stripe 1/4" O.D.	61510035
Green Stripe 1/4" O.D.	61510234
Red Stripe 3/8" O.D.	61510279
Green Stripe 3/8" O.D.	61510280
Yellow Stripe 1/4" O.D.	61510260
White Stripe 1/4" O.D.	61510261
Blue Stripe 1/4" O.D.	61510262
Tees for sensor taps	
Plastic 1/4"	42150011
Plugs for tees	
1/4"	42160081
AeroCross™ Multipoint Velocity Sensors	
Size 4"	3151520001
Size 5"	3151520001
Size 6"	3151520002
Size 7"	3151520003
Size 8"	3151520004
Size 9"	3151520005
Size 10"	3151520006
Size 12"	3151520007
Size 14"	3151520008
Size 16"	3151520009